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POWER AS A DETERMINANT
OF EXECUTIVE COMPENSATION

by

Arden Grabke Rundell

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

ARIZONA STATE UNIVERSITY

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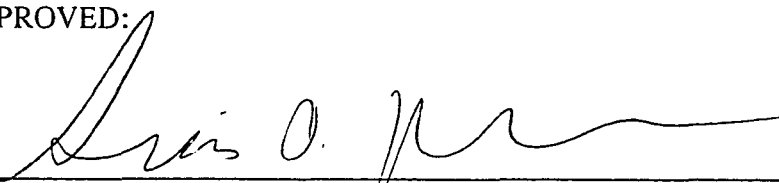
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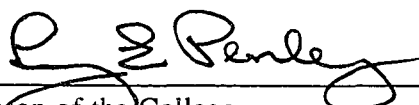

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ABSTRACT

This study tested a model of executive power and its relation to the levels and structures of executive compensation packages. The measurement model of executive power used in this research consisted of four power dimensions developed by Finkelstein. The first power dimension, structural power, refers to the legitimized authority of the executive position that is established by the hierarchy of the firm. The second power basis was ownership power, defined as the influence that is obtained by being a legal owner of the firm. Expertise was the third power dimension; it concerns the amount of knowledge the executive has regarding the organization and its environment. The fourth power dimension, prestige power, refers to the status of the executive within the business community.

Exploratory and confirmatory factor analyses indicated that three of the four power bases: ownership power, expert power, and prestige power, were well represented by their respective measurement indicators. Using structural equation modeling, tests of direct effects of power on executive compensation levels, performance sensitivity of executive pay packages, and the proportion of variable pay to fixed pay, indicated that executives are able to reduce their risks associated with compensation that is tied to pre-established performance indicators as their expertise with their firms increase. In addition, there was some support that tenure with the firm enables the executive to accumulate additional power. An even more significant finding was that each of the three forms of power were strongly related to firm size,

indicating a mediating effect of strategic choices on the power and compensation relationships.

This study was the first to directly operationalize and test power as a determinant of executive compensation that has often been alluded to by agency theorists. By incorporating a behavioral element into the agency theory framework, a potential missing link between executive compensation and firm performance was investigated. As such, this study made a substantial contribution to the executive compensation literature. Additionally, this research was able to verify the existence of the self-interest assumption made by economists and provide support for the Finkelstein model and its ability to be used in comprehensive tests concerning the outcomes of executive power.

To Yeshua HaMashiach...
who used this experience as an
additional means of revealing to me
His grace and faithfulness.

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Chapter 1

INTRODUCTION

The factors that determine the magnitude of executive compensation packages have received over seventy years of empirical attention. Most of these studies have been conducted under the rubric of agency theory, which describes a contractual relationship between a firm's owners and the top managers of the firm. When the agency contract is enforced by shareholders, the executives of the firm exert their efforts to maximize firm performance and provide shareholders with a stable flow of dividends. The executives are rewarded, in turn, in the form of compensation. A lack of enforcement of the contract leads to self-serving behaviors of the executive, such as the pursuit of strategies to increase his or her prestige or the adoption of policies that boost their compensation packages.

According to a recent report (Byrne & Bongiorno, Business Week, Special Report, April, 25, 1994, pp. 52-59), the average executive of major U.S. firms earns well over a million dollars a year in salary and bonuses alone. Despite recent attempts to curb the increase of executive compensation and to tie pay to firm performance indicators (e.g., greater disclosure in proxy statements, \$1 million tax cap), executive pay is increasing faster than firm profitability, leading the popular press to claim that pay-for-performance relationships do not exist (Byrne & Bongiorno, 1994). The academic literature reports similar conclusions. Regardless of how firm performance is

measured or what pay components are considered, empirical investigations reveal that the amount of variance in executive compensation that is explained by firm performance seldom exceeds fifty percent, suggesting that there are other important unidentified determinants of executive compensation levels.

According to managerialists (c.f. Aoki, 1984; Berle & Means, 1932; Herman, 1981; Marris, 1964; Williams, 1985), the missing link between executive pay and firm performance is a power imbalance between executives and shareholders. Shareholders lose the ability to control the actions of executives when they are too dispersed to coordinate their monitoring of executives and when they have limited information about the executives. Agency theorists also recognize that shareholder dispersion and information asymmetry attenuate the agency contract. However, agency theorists state that shareholders can minimize these problems with board monitoring, termination threats, and incentives that align executive and shareholder interests. What gives executives the ability to enlarge their compensation packages despite corresponding decreases in firm performances, according to agency theorists, are the means executives have to overcome the control mechanisms of the shareholders. Executives can gain power over shareholders by taking advantage of not only shareholder dispersion and information asymmetry but also the ambiguity involved in specifying performance criteria for executives and the opportunity to select board members.

Throughout agency theory, there are references to power in the relationship between shareholders and executives. However, power has never been directly

operationalized or tested as a major variable in predicting executive compensation. Economic models, such as agency theory, present simplistic of views on human behavior that make empirical analysis of power difficult to hypothesize and test. Therefore, an attempt needs to be made to incorporate other power perspectives with that of agency theory. The purpose of this dissertation is to integrate perspectives of power from other disciplines into the agency theory framework to develop a comprehensive model of power that relates to executive compensation.

This paper will draw on the work of Finkelstein (1992) who used the resource dependency literature in developing and testing a model of power within top management teams. Finkelstein's model will be extended to include the relationship power has to executive compensation levels and structure. The outline of this paper is as follows. First, there is an overview of agency theory and the areas in which power relationships are implied. Empirical investigations conducted on the pay-for-performance relationship and moderators tested by agency theorists will be discussed in terms of their relationships to power and executive compensation. Then, the model of power within top management teams developed by Finkelstein will be introduced. A framework for testing Finkelstein's model of power as it pertains to executive compensation will be presented.

Chapter 2

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Overview of Agency Theory

Agency theory (cf. Jensen & Meckling, 1976) is based on the theoretical principle that the firm is composed of a nexus of contracts (Coase, 1937). Although agency theory can be applied to all contractual relationships within the firm (e.g., the one governing the supervisor-subordinate relationship), primary attention in the literature is given to the contract between shareholders and top managers of the firm. The traditional unit of analysis in agency theory is the contract in which equity holders (principals) hire managers (agents) to perform services on behalf of the principals. Contracts specify the rules of the agency relationship, evaluation criteria, and rewards (Fama & Jensen, 1983). In a general sense, managers are expected to maintain firm viability and a stable flow of dividends. In return, managers are paid. According to economists, monetary rewards are significant because they can be substituted for nonmonetary rewards. Individuals prefer money as a reward because it serves as a generalized claim on resources (Baker, Jensen, & Murphy, 1988).

Economics assumes that individuals are rational, risk adverse, and prone to taking actions that will maximize their personal welfare and minimize their efforts. Being rational, shareholders know of the managers' utility functions. Because high performance requires effort and risk taking, the agency contract necessitates structuring

rewards so that rewards are maximal when the agent has exerted the greatest effort. However, enforcement of a contract such as this requires complete observation of the agent's efforts.

The independence of managers from shareholders gives rise to the "moral hazard" problem discussed in the agency theory literature. Moral hazard is defined as the "actions or inactions carried out by the agent that are unobservable by the principal" (Tosi, Gomez-Mejia, & Moody, 1991, pp. 46-47). Moral hazard is detrimental to the principals. When the actions of the agent are unknown and cannot be evaluated by the principal, the principal's ability to enforce the agency contract is hampered. One reason for moral hazard is information asymmetry between the principal and the agent. Top managers control organizational resources and know most about the firm's activities; this allows them to act opportunistically to the detriment of shareholders (Tosi & Gomez-Mejia, 1989). Managers who are given annual incentives, for example, might be inclined to maximize short-term profits in order to receive their bonuses. Managers might do this by curtailing expenditures in research and development, advertisement, and maintenance of machinery -- investments needed for the attainment of maximum long-term firm performance. Because of their superior information and shareholders' lack of full observation, managers can take actions that will maximize their rewards; but their actions may harm firm performance in the long-run and result in losses for the principals.

In addition to information asymmetry, the dispersion of equity owners leads to a moral hazard. It is typical for U.S. firms to have thousands of shareholders that are scattered geographically. Because of their numbers and dispersion, shareholders are not likely to collude to enforce the agency contract. Furthermore, most shareholders own a portfolio of stocks, and thus are not inclined to get involved in monitoring of a particular agent (Walsh & Seward, 1990).

There are three theoretical mechanisms that are used to overcome the moral hazard problem and enforce maximum effort of the agent: (1) the compensation package, (2) the board of directors, and (3) the market. The agent's compensation package, mentioned earlier, should be designed so that the highest pecuniary rewards are associated with the highest firm performance. Because of shareholders' lack of full observation, firm performance is generally tracked by objective accounting measures, such as return on assets, return on equity, and earnings per share. Top executives are expected to receive increases in their compensation when these objective measures increase. However, because firm performance often depends on the conditions of the economy and the firm's industry, many theorists suggest that subjective measures are also used to determine compensation levels (cf. Gomez-Mejia & Balkin, 1992; Wilhelm, 1993).

Specifically, particular components of the executive compensation package are emphasized to enforce the agency contract. Approximately twenty percent of an executive's pay package consists of long-term incentives, such as stock options and

stock appreciation rights. According to Gomez-Mejia and Balkin (1992), long-term incentives have the greatest potential to align interests between the top managers and the shareholders of the firm. Theoretically, in order to maximize their rewards under long-term incentive plans, managers must take actions that would benefit both themselves and the shareholders.

The party responsible for structuring the executive compensation package is the board of directors. Company's boards also have the responsibility of monitoring managers' behaviors to ensure that they serve shareholders' interests, acting as business advisors, and selecting successors to executive positions. In a sense, the board acts as an agent of the shareholders to enforce the traditional agency contract. Because the board is comprised of both internal and external directors, it should offer a sound monitoring mechanism of the agent, providing subjective and objective appraisals of the agent's behaviors and actions.

Finally, the market for executives also helps to enforce the agency contract. A poor-performing executive faces the possibility of being replaced by other executives in the market, dealing with takeover threats, and risking the loss of pay, prestige, and a good reputation.

Power Implications in Agency Theory

Agency theory predicts that an executive working toward the best interests of the shareholders, and under the sound governance of the monitoring mechanisms (compensation package, board of directors, and the market), should expect to receive a

pay increase when firm performance increases. A misalignment of interests would hypothetically bring negative shareholder reactions and pay sanctions imposed by the board of directors. However, the agency theory literature also presents instances when organizational governance structures are weakened, giving executives the power to pursue activities that attain their self-interests, including the enlargement of their pay packages at the expense of shareholders.

Agency theory implicitly acknowledges the existence of power in the relationship between executives and shareholders. The agency contract itself is a concept that, by definition, pertains to a power relationship between the executive and shareholders. According to most deliberations on personal influence, power exists in all social relationships and is defined as the ability of one party to exert its will on another party (cf. French & Raven, 1959). Agency theorists posit that shareholders are able to exert their influence over agents with the agency contract. The agency contract is enforced through the board of the directors who have the authority to structure compensatory rewards, and at an extreme, fire the executive. The board monitoring mechanism, compensation, and termination threats are implicitly treated as sources of shareholder power by agency theorists. Not complying with shareholder interests potentially has severe consequences for the executive. Inappropriate actions taken by the executive could lead to reduced earnings, dismissal, and a ruined reputation. The threat of imposing these penalties should serve to align the agent's interests with those of the shareholders. However, agency theorists acknowledge that agents can nullify the

influence of shareholders through four power bases of their own. Two were mentioned earlier: information asymmetry and shareholder dispersion. The other two are nonprogrammable tasks and entrenchment.

As discussed previously, executive control over organizational knowledge enables opportunistic behavior by the executive. Relative to other members of the board, the executive has continuous interactions with a large number of factions of the firm, providing the executive with organizational expertise. Board members are dependent on the executive for organizational information when determining the best course of action for the firm and for ascertaining whether or not the executive has worked toward this objective. The board dependence on the executive's knowledge of the firm creates a power basis for the executive. The executive can withhold or selectively present relevant information to pursue his or her own objectives, which may not necessarily increase firm performance. To illustrate, the executive may argue that the courses pursued best served shareholders, and lacking knowledge, board members may believe that the executive deserves a bonus.

Agents can bolster their power stances relative to principals who are atomistic owners of the firm. That is, shareholder power is diluted when their dispersions do not allow them to coordinate monitoring efforts. As stated previously, agency theory assumes that individuals are motivated to defray their efforts due to their proclivities toward self-interest and rationality. Rational shareholders are predicted to exert only the amount of effort necessary to provide desirable returns. When shareholder

investments in the firm are small, little monitoring effort from owners is expected. Shareholder dispersion thus provides opportunities for executives to pursue self-interests without critical evaluations and repercussions from shareholders.

Task programmability refers to the aspects of a position that can be readily defined and measured. When a position consists largely of nonprogrammable tasks, it is difficult to control the behavior of the incumbent because of the complexity involved in establishing performance criteria and rewards (Eisenhardt, 1988). The nonprogrammable nature of top managerial positions, in combination with information asymmetry and lack of full observation of the executive, makes it problematic for board members and shareholders to accurately determine whether the executive has exerted maximum effort on behalf of shareholders. Ascertaining appropriate levels of pay for the executive is therefore difficult. Nonprogrammable tasks give executives the power to pursue actions that will benefit themselves without board members' abilities to critically evaluate these actions and determine equitable changes in pay levels.

Entrenchment refers to the unquestionable compliance that the executive has over the entire board. Agency theorists discuss two ways in which executives become entrenched. One way is through an imbalance of internal and external directors on the board (cf. Fama, 1980), and the other is through executive tenure on the board (Murphy, 1986). According to deliberations on structural power, chief executive officers are in the most powerful positions in organizations (Astley & Sachdeva, 1981; Brass & Burkhardt, 1993; Falbe & Yukl, 1992; Mintzberg, 1983; Pettigrew, 1972).

The position of chief executive legitimizes power, leading to submission from those lower in the organization's hierarchical structure (Raven & Kruglanski, 1970; Thompson, 1967). When there are relatively many more internal than external directors on the board, chief executive officers are likely to get their agendas approved due to subordinate obedience. How the CEO can recommend many subordinate managers onto a board ties into the executive's tenure on the board. CEOs are often board chairman who are consulted by other directors before board appointments are made. Because of their positions on the board, chief executives are likely to have strong voices in recommending internal directors, or external directors who would knowingly be in favor of the CEOs' preferences. Furthermore, the CEO, as a member of other firms' boards, is likely to increase his or her prospects for preferred external directors. The longer the CEO's tenure, the more opportunity the executive would have to coopt board members who are compliant to the desires of the CEO.

Entrenchment readily lends itself to executive self-serving behaviors. Without critical evaluation by board members, executives are not constrained to pursue actions that benefit strictly the shareholders. Executives who are entrenched are free to achieve their own objectives. An example of such an objective would be enlarging the size of the firm. Firm expansion may be a desirable strategy for the executive because of the prestige, visibility, and lucrative pay packages associated with large firms. However, such diversification may come as a cost to the firm's shareholders when the same resources could have been used to implement a pertinent innovation strategy.

The entrenched executive is not subject to this type of evaluation, and as a result, the executive has the opportunity to increase his or her pay without taking actions that would ultimately benefit the legal owners of the firm.

Although agency theory is based in the economic discipline and is presumably void of behavioral explanations for executive actions, it provides a framework that incorporates behavioral notions to account for executives' abilities to obtain large pay packages despite lagging firm performance. Agency theory alludes to a power imbalance between principals and agents to justify the large size of executive pay packages. Ideally, principals can direct the behaviors of agents with their tools of the board, compensation, and termination threats. Agency theorists acknowledge a weakening of shareholder power when their enforcement efforts are attenuated by geographic dispersion and ineffective board monitoring. Agents can also make board monitoring ineffective by their control over organizational knowledge, having nonprogrammable tasks, and becoming entrenched. The empirical literature supports the hypothesis that agents have more power than principals. As will be seen in the following literature review, executives can secure their self-interests, including large compensation packages, regardless of the firm's performance.

Power Implications in the Empirical Literature

Research investigating the determinants of executive compensation levels dates back to the 1920's. The most direct test of the strength of shareholder power over

agents involves predicting executive compensation levels by firm performance indicators. However, a debate was initiated by Berle and Means (1932) and Baumol (1958) that started a different type of research stream. Berle and Means recognized that the separation of owners from the control of the firm leads to opportunistic behavior of executives and argued that executives take actions to pursue their self interests at the expense of shareholder interests. Separation of ownership from control is more prevalent in large firms; therefore, these researchers suggested that managers' desire to increase firm size to minimize shareholder constraints. For this reason, Baumol (1959) argued that managers are not motivated to maximize profits, but to keep profits only high enough to appease shareholders and to provide funds for growth. Sales, in Baumol's opinion, were a more accurate predictor of compensation levels than were profits. This began the "sales versus profit debate" originally tested by McGuire, Chiu, & Elbing (1962). Support for the sales argument would suggest that executives' interests outweigh the influence imposed by shareholders, even with incentives and board monitoring mechanisms in place.

In their empirical investigation, McGuire et al. correlated sales, profits, and executive compensation of 45 Fortune 100 firms for seven years (1953-1959). They found significant correlations between sales and compensation (measured as salary and bonus). However, the correlations were small, ranging from .21 to .28. Profits were not significantly correlated with compensation when sales were controlled, supporting Baumol's argument that executives of large firms are in positions to negotiate higher

compensation for themselves. The empirical studies that followed McGuire et al., however, provided evidence that executives do work to increase firm performance, but not to the extent that would be expected if shareholders were in power.

As a rejoinder to McGuire et al., Lewellen and Huntsman (1970) found significant relationships between compensation and after-tax profits. They used multiple regression to overcome the statistical and measurement bias in correlation analyses and employed a more comprehensive measure of compensation (i.e., cash, bonus, and long-term deferred and contingent incentives). Regression terms were weighted by total book assets to reduce high collinearity between sales and profits. R-squares were very high, between .74 and .90, for the years measured (1942-1963). On the basis of this study, it would appear that the basic agency theory argument of executives working on the behalf of powerful shareholders was strongly supported. To further test the sales versus profit debate, Prasad (1974) employed the methodology used in the Lewellen and Huntsman study, but included the number of shares owned by the executive and their market values in operationalizing compensation. His results also supported the agency theory argument but to a lesser degree. Both profits and sales were significant predictors, and profits were the largest predictor. However, the total coefficient of determination in his study was only .50, leading this researcher to conclude that there are other important unidentified predictors of executive compensation.

A significant pay-for-performance relationship, regardless of how small, could indicate some shareholder influence, but an alternative explanation is also plausible. Because agents may be powerful enough to pursue actions that would benefit their own interests, a pay-for-performance relationship could also suggest that agents wish to enhance their own self-image and prestige in addition to compensation. Working for an underperforming firm would mar an executive's image in the eyes of the business community and inspire disparaging gossip among top business leaders. Therefore, due to the self-interested nature of the executive, a modest pay-for-performance relationship is expected regardless of whether the executive is working in the best interests of the shareholders. However, if shareholders are in power and board members employ strong monitoring mechanisms, then studies examining the performance of the agent should provide evidence of robust relationships between firm performance and executive compensation.

Studies conducted within the last two decades have given less attention to the sales issue, but they too have not yielded strong support of a pay-for-performance relationship. According to Ciscel and Carroll (1980), profits and sales are not truly "independent" variables because sales are included in the operationalization of profits. In their study of determinants of executive compensation, Ciscel and Carroll used residual profits as the independent variable, defined as profits minus profits predicted by sales. Compensation was measured as salary plus bonus. They did not find a significant relationship between the two variables. Bentson (1985) found no significant

relationship between profits and compensation defined as salary plus bonus. Antle and Smith (1986) also found no significant relationship between firm performance and compensation. Hypothesizing that executive compensation might be based on firm performance as it relates to other firms in the same industry, Antle and Smith used systematic profits as the independent variable, defined as profits that can be explained by industry-wide fluctuations. Compensation was operationalized as the after-tax value of an executive's total compensation package: salary, bonus, stock options, dividends, phantom shares, pension, savings plan, and long-term performance plans. Jensen and Murphy (1990) reported a small, but significant, pay-for-performance relationship when stock incentives were used as the dependent variable.

Perhaps a more powerful test of the relationship between compensation and the executives' efforts to maximize shareholder wealth has been conducted by examining the rates of return of firms' stock prices. Murphy (1985) found that raw rates of return explained 29 percent of the variance in salary and bonuses of executives' compensation packages. Coughlin and Schmidt (1985) reported that abnormal returns based on performance differences in two measurement periods explained a small but significant amount (5.4%) of the variation in executive compensation. However, Kerr and Bettis (1987), who also used a time-event methodology, found that abnormal returns did not significantly predict executive compensation levels. These recent empirical studies provide additional evidence that pay-for-performance relationships are

weak, lending support to the notion that executives have power to pursue their own rather than shareholders' interests.

In summarizing the empirical work on the pay-for-performance relationship, it appears that the contract between executives and shareholders is not as robust as it ideally should be by agency theory criteria. There is only a modest relationship between firm performance and executive compensation. A meta-analytic investigation conducted by Tosi, Warner, and Gomez-Mejia (1995) clarifies the strength of the agency contract: firm performance predicted only six percent of the variation in executive compensation levels. These studies reveal that the executive has power relative to shareholders that allows the executive to enhance his or her compensation package despite firm performance criteria.

Additional evidence of executive power is provided by more recent investigations of the firm size issue (Agarwal, 1981; Dyl, 1988; Kroll, Simmons, & Wright, 1990; Schmidt & Fowler, 1990), and executive entrenchment (Hill & Phan, 1991; Murphy, 1986; Wade, O'Reilly, & Chandratat, 1990). As stated previously, executives may want to increase the sizes of their firms because of the prestige, visibility, and large compensation packages associated with large firms. However, diversification strategies may not be in the best interest of the shareholders. Consistent evidence of a relationship between firm size and pay has been reported in these recent studies, revealing the power that agents have over principals. Agarwal found that firm size explained 62 percent of the variation in salary and other cash equivalents in the

executive pay package when firm size was measured as sales volume. In addition, Agarwal reported that certain measures of job complexity significantly predicted compensation (i.e., executive's span of control, number of managerial levels of the firm, geographical diversity of the firm). Dyl also reported a significant correlation of .24 between size of firm (measured as the natural logarithm of total assets) and total compensation. In studies of the effects on compensation following corporate attempts to enlarge the firm through acquisitions, Kroll et al. reported a significant increase in compensation during a two-year post acquisition period ($R^2 = .353$). Schmidt and Fowler, found that executive compensation levels increased four years after an acquisition even though performances of these bidding firms decreased. Pertaining to executive entrenchment, Hill and Phan reported that CEOs' compensation packages contained smaller levels of risk (pay linked to stock returns), the longer the executive's tenure with the firm. Murphy similarly found that pay and performance relationships were stronger during the early years of an executive's tenure than in later years. Pertaining to board composition, Wade et al. reported a positive relationship between the awarding of golden parachutes to CEOs and the number of outside directors appointed after the hiring of the executive.

Thus far in this discussion, the agent's attainment of power is attributed to the dispersion of shareholders and is evidenced by a weak pay-for-performance relationship and firm enlargement strategies. However, these studies did not take into account the potential influence concentrated shareholders and board governance structures

(proportion of internal and external directors) have on the executive, although some studies treat them as moderating variables. A review of these studies provide additional evidence that executives have the power to obtain large amounts of compensation regardless of shareholder concentration and board monitoring effectiveness.

Shareholder Concentration. Agency theorists posit that there are stockholders in some firms that own enough of the company's equity to have a controlling interest, while in other firms, dispersion of ownership is so great that no particular stockholder is significant enough to influence the actions of managers. As indicated previously, managers have the opportunity to pursue their own interests when ownership is widely dispersed because shareholders are less motivated to monitor the actions of the managers. On the other hand, when owners own sizeable shares, it would be expected that executives would adhere more to principals' interests.

Research has indicated that managers are influenced by owners who own at least five percent of the voting stock (Gomez-Mejia & Balkin, 1992). Empirical studies have used this five percent criterion in operationalizing ownership concentration ownership when investigating the actions and compensation of agents. This standard operationalization of ownership structure gives rise to two types of firms: owner-controlled and management-controlled. Owner-controlled firms are defined as those that have at least one shareholder, other than a manager of the firm, who owns five percent or more of the company's stock; in management controlled firms, there are no

such major shareholders (Gomez-Mejia, Tosi, & Hinkin, 1987; O'Reilly, Main, & Crystal, 1988). Because shareholders in owner-controlled firms are concentrated, they could have greater power to coordinate their efforts to influence the actions of managers than shareholders of management-controlled firms. Executives of management-controlled firms, on the other hand, would be at an advantage in setting their own pay policies that may or may not be related to firm performance. Therefore, executives should be more inclined to adhere to principals' interests in owner-controlled than in management-controlled firms.

Investigations of this hypothesis have been conducted by Gomez-Mejia and his colleagues, Dyl (1988), Allen (1981), and Hill and Snell (1988). Gomez-Mejia, Tosi, and Hinkin (1987) examined 71 companies between the years of 1980-1983. Using comprehensive measures of firm performance (average of sales, profits, percent change in sales, percent change in profits, return on equity, earnings per share, dividend yield, market value of the firm), and compensation (salary, bonus, long-term income), they reported that firm performance was a significant predictor of compensation in owner-controlled firms ($R^2 = .231$), but not in management-controlled firms ($R^2 = .038$). Furthermore, they found that long-term income had a stronger relationship to firm performance than did the other two compensation components tested. In a more subjective investigation of the effects of ownership structure of the pay-for-performance relationship, Tosi and Gomez-Mejia (1989) surveyed 243 chief compensation officers for their perceptions of firm performance and monitoring effectiveness of their CEOs'

pay packages. They again reported a stronger firm performance-to-pay relationship in owner-controlled than in management-controlled firms. Additionally, they found that the monitoring mechanism of incentives in the compensation package was more preponderant in owner-controlled than in management-controlled firms. A second test by Tosi and Gomez-Mejia (1994), consisting of more objective measures of the performance and compensation variables, yielded similar findings. Dyl (1988) reported a significant coefficient of determination (.346) in owner-controlled but not in management-controlled firms when using the natural logarithm of return on equity as the independent variable and total remuneration as the dependent variable (salary, bonus, and other contingent compensation). A slightly different approach was taken by Allen (1981), who controlled for firm size and performance in investigating the effects of ownership structure on executive compensation. He reported that control configurations of the firm explained 4.6 percent of the variation in CEO compensation.

Not directly related to the pay and firm performance relationship, but still having implications for the power position of the executive relative to ownership concentration was a study conducted by Hill and Snell (1988). Hill and Snell investigated the types of strategies that are pursued in owner-controlled and management-controlled firms. They hypothesized that long-term profitability strategies, particularly innovation strategies, would be pursued in owner-controlled organizations, while firm enlargement and diversification strategies would be preferred in management-controlled firms. Testing this hypothesis in 95 Fortune 500 companies,

they found significant support for their supposition, indicating the importance ownership structure has on the propensity of executives to pursue their own interests.

In summary, research has consistently shown that in owner-controlled firms, there is a significant, albeit small, role of principals affecting the actions and compensation of executives. This research indicates a moderating relationship of equity concentration on the power of agents. In owner-controlled firms, a stronger pay-for-performance relationship and strategies favoring long-term firm performances and shareholder interests can be found. In management-controlled firms, agents have the power to engage in activities that will enlarge their pay packages. Therefore, the empirical literature on ownership structure provides further evidence of an instance when managers are in power and receive higher levels of compensation than what would be expected if governing mechanisms were in full force. Specifically, as shareholders disperse so do their abilities to influence the actions of executives.

Board Governance Structure. In addition to ownership concentration moderating the pay-for-performance relationship and the strength of shareholders relative to executives, the composition of the board of directors can produce various effects on the agency relationship. A board characterized by a large percentage of inside directors may hamper the effectiveness of the board's monitoring function. Inside directors may agree with the CEO, who has ultimate authority in the firm because of the position the CEO has in the firm's hierarchy, to pursue strategies that would not be in the best interest of the shareholders serve the interests of the executive.

Given a few outside directors, inside directors can more easily collude inside the board room. A high proportion of outside directors, however, might make more objective assessments of the executive's actions and behaviors. In other words, boards that consist of high proportions of outside directors may serve as stronger monitoring mechanisms of CEOs than boards with few outside directors. Therefore, evidence of executives pursuing strategies in favor of shareholders' interests should be found in firms with boards containing high percentages of outside directors. In the empirical studies that follow, researchers have used board composition as a predictor of firm performance, assuming that agency costs to shareholders are less when the firm performs well. In most cases, researchers define an outside director as a board member that has not been currently or formally a member or relative of the firm's management.

Baysinger and Butler (1985) used a cross-lagged regression analysis of board composition effects on relative firm performance for 266 companies for the years of 1970-80. Relative firm performance was measured as industry return on equity divided by the firm's return on equity. Results showed that firm performance was significantly higher when the board consisted of relatively many outside directors, particularly when their occupations were of an advisory type (financiers, consultants, lawyers). Fosberg (1989), however, reported no significant board composition effects on firm performance when using a paired-sample methodology. Kosnik (1987), using greenmail resistance as a proxy for ownership interests, reported significant resistance in boards

comprised of many outside directors. However, this was not found to be the case when outside directors had large equity holdings. In a follow-up study, Kosnik (1990) reported that resistance to greenmail was stronger when outside directors had large equity holdings relative to inside directors.

In summary, board composition has a small moderating role in the agency relationship. When the board has more outside than inside directors, there appears to be greater adherence to the preferences of shareholders. Executives are more inclined to pursue performance-maximizing strategies with more outside directors on their firms' boards. However, a large ratio of inside directors provides executives with an additional opportunity in which self-interests can be pursued.

Agency Theory Limitations

The empirical studies conducted under the rubric of agency theory imply that there is a power imbalance between agents and principals. The empirical studies reveal a lack of support for the basic theoretical arguments (i.e., agents are performing services on behalf of shareholders, boards assure that interests are aligned), that have been explained by agency theorists as a dissemination of shareholder control and inadequate board monitoring. In effect, agency writers have alluded to power as being a key variable in determining executive compensation levels, although power has not been directly operationalized and tested by these researchers. The negligence by agency theorists to explicitly consider power as a predictor of executive compensation

levels may explain why strong empirical support for agency theory formulations is lacking.

A reason why power has not received explicit consideration is due to the limited assumptions about human behavior that are given in economic models. Researchers testing agency theory are constrained to a single view of human nature, self-interest, and limited to the firm as the unit of analysis. Agency theorists give little consideration to the processes in which individual agents obtain their preferences and make strategic decisions for their firms. From an agency theory standpoint, power is achieved when shareholder and board monitoring systems are ineffective. Power from this perspective can be defined simply as a cost to shareholders due to self-interested pursuits or as one's ability to overcome the monitoring constraints to increase self-serving behavior. However, power is a more comprehensive variable than what agency theorists have implied. According to the management, psychology, and sociology disciplines, power contains positive qualities as well, including the ability to secure critical resources for the firm, network with the business elite, and establish legislation favorable to all firms. The importance of power in agency theory justifies the need to include it as an independent variable. An expanded definition of power in agency theory might serve to significantly explain compensation levels when executive power is operationalized and directly tested.

An Expanded Framework on Executive Power

The power relationship between shareholders and agents is not clear from an agency theory standpoint. The agency model of principal and agent power neglects to specify the extent that agents can engage in self-serving behaviors. It also fails to stipulate the degree to which power affects agents' compensation packages. An attempt will be made in this section to develop a comprehensive framework on executive power and its relationship to executive compensation by integrating agency theory with the extensive power literature found in other disciplines. A discussion on the work of Finkelstein (1992) will begin this endeavor. Based primarily on the resource dependency perspective found in the management literature, Finkelstein developed a model on power that pertained to top management teams of organizations. Finkelstein's model will be extended to specify relationships between an executive's level of power and his or her compensation.

Finkelstein's Model of Power

The resource dependency perspective defines power as the ability to control the resources on which others are dependent (Emersen, 1962; Pfeffer, 1981). A current view of organizations (cf. Thompson, 1967) is that organizations are open social systems in constant interchange with other organizations for the procurement of resources needed for functioning and survival. Although some resources are internally generated, organizations obtain many of their resources through transactions with other organizations. A resource - broadly defined as anything that is useful

(Simpson, 1985) - ranges in levels of criticality for organizations. Resources that are critical to an organization's functioning and that are difficult to secure create environmental dependency and uncertainty for organizations. According to Thompson, uncertainty presents a severe problem for organizations because uncertainty makes it difficult to recognize cause/effect relationships, feasible alternatives, and the basis for success and failure. Consequently, those who are able to control critical resources and reduce their organization's level of uncertainty are perceived as powerful.

In relating resource dependency to top-management power, Finkelstein identified four elements that enable the executive to reduce uncertainty for the organization and increase the level of his or her power. These four power sources are: (1) hierarchical position, (2) stock ownership, (3) expertise, and (4) prestige. Structural position and stock ownership are factors that enable an executive to effectively deal with uncertainties stemming from the firm's internal environment, including its employees, shareholders, and board members. The other two sources of power, expertise and prestige, were posited to reduce uncertainty stemming from the organization's external environment: customers, suppliers, competitors, and government.

Structural position is based on the premise that one's authority increases as one moves up the hierarchical ladder. According to Astley and Sachdeva (1981), incumbency in a high office grants unconditional obedience from subordinates due to the legitimized authority of these positions. Those in top managerial positions can

reduce uncertainty from internal sources by controlling the actions of subordinates. As mentioned earlier, an executive can gain compliance from board members by having a higher proportion of internal directors than external directors. Structural power over the internal directors should allow executives to pursue self-interests, including a large compensation package.

Stock ownership is considered to be one of the most important sources of power within organizations (Allen, 1981; Perrow, 1976; Zald, 1969). The literature review on shareholder concentration attests to the influence stock ownership potentially has on the behaviors of executives. As legal owners of the firm, shareholders are given the rights to vote and influence strategic decisions, power that increases along with the percentage of shares owned. An executive who is also a shareholder has these same privileges. Moreover, the executive shareholder is in the position to influence board decisions and his or her performance criteria. Research has shown that executives who own significant amounts of stock have the power to increase their tenure with the firm (Allen, 1981; Allen & Panian, 1982; Salancik & Pfeffer, 1983). Thus, stock ownership is a significant source of power for the executive. Not only does stock ownership grant privileges to the executive, but it also reduces uncertainty for the firm's owners by guaranteeing that the executive's interests are aligned with theirs'. Additional executive power can be gained through shares owned by the executive's family members or through familial relationships to the firm's founder.

According to Finkelstein, familial links with other influential members of the firm enables the executive to "bypass traditional sources of board control" (p. 512).

Finkelstein hypothesized that expert power accrues to the executive who has made numerous contacts with the firm's external constituents. The more relationships the executive has been able to establish through his or her varied experiences while being employed in the firm, the greater the executive's ability to secure resources and reduce uncertainty stemming from the firm's external environment. Expert power is even higher when the executive had worked in a functional area that is critical to the organization's functioning. According to French and Raven (1959), the perception that one has expertise serves as a significant basis of social power. Studies on expert power have shown that it significantly varies with conformity and influence of subordinates and coworkers (Podsakoff & Schriesheim, 1985).

Expert power ties into agency theorists' deliberations on information asymmetry. When the executive has had numerous experiences with the firm, board members may become dependent on the executive for knowledge regarding the best use of the organization's resources. The executive can use the board members' dependency to his or her advantage by portraying an efficient use of the firm's resources to justify a higher pay package. The executive could also present information in a way to warrant approval of strategic pursuits that would promote the executive's interests.

Moreover, a good reputation of the executive among societal members that bring legitimacy to an organization, such as the government and financial institutions,

enables the executive to reduce uncertainty from the firm's external environment. According to Finkelstein, prestige acts as a symbol of power and provides a means by which information about resources can be obtained. Executives who are often referred to as having prestige are those who hold prominent positions in society. Prestige portrays to others that the executive has powerful acquaintances and can obtain information from important external sources.

Ample support for the dimension of prestige power has been found by researchers under the resource dependency and network centrality perspectives on personal power. One study linked prestige power to executive compensation packages (Wade, O'Reilly, & Chandratat, 1990). Wade et al. reported that the CEO's social reputation, as measured by the number of boards in which the CEO was a member, increased the chances of the CEO having a golden parachute. Prestige is a source of power for the executive because board members are likely to be submissive to an individual who has privileged access to resources. Furthermore, board members may yield to prestigious CEOs because they identify with CEOs of a higher social class (French & Raven, 1959; Kanter, 1983).

An executive can obtain a high social status and access to resources by belonging to the network of interlocking directorates, particularly among firms that have successful performances (Useem, 1979). According to Useem, the involvement in the governance of several organizations gives executives a better understanding of business interests than what a single directorship could provide. Multiple directorships

places the executive in the center of business social circles and grants the executive with greater information concerning resources. Furthermore, a large number of social contacts increases the executive's prestige and visibility within the business community, making the executive an attractive candidate for other board memberships.

Useem (1979), in a study 2,003 directors of the largest 797 companies, found that directors of multiple firms were more likely than single directors to serve as advisors to business policy associations, local, state, and federal governments, and nonprofit organizations, including economic development, cultural, and scientific organizations. Furthermore, it was reported that multiple directors were more likely to be involved in the promotion of legislation beneficial to all organizations. Useem stated that multiple directorships serves to strengthen the status of the executive among business leaders and provide contact to needed resource supplies. Thus, the executive's participation on several boards is a significant source of power for the executive. In addition, the executive's involvement on several boards gives power to the entire organization. According to Zald (1969), the legitimacy of the organization is enhanced when its members represent diverse groups whose interests affect the organization.

Network centrality writers also consider prestige stemming from multiple directorships to be a significant source of power. From a network centrality perspective, an individual's ability to acquire power increases with his or her proximity to the core of network exchanges (Astley & Sachdeva, 1981; Baum & Oliver, 1991;

Boje & Whetten, 1981; Brass & Burkhardt, 1993; Bucharach & Lawler, 1980; Fombrun, 1983; Granovetter, 1973; Ibarra, 1993; Kanter, 1979; Meyer & Zucker, 1990; Tushman & Scanlan 1981). Researchers of the network centrality perspective also place an importance on resources and the dependencies generated; however, a stronger emphasis is given to one's position in the network of resource transactions. A central location is ideal for resource procurement. Brass and Burkhardt (1993) stated that a central network position enables an individual to have a greater access to information concerning resources.

An explanation for how power is acquired in networks is given by Granovetter (1973). Granovetter argued that social systems are efficient when they are characterized by acquaintances among people, or weak ties. Strong ties, defined as close social relationships (i.e., relatives and friends), prevents information from spreading to distant parts of the social system. The strength of weak ties, according to Granovetter, is their efficiency in disseminating information to large numbers of people. An individual or organization with many acquaintances has access to more information concerning resources. Tushman and Scanlan (1981) posed a similar argument in discussing the effectiveness of social systems for organizations. They stated that social systems can be effective tools for acquiring information; however, when organizations attempt to communicate directly across organizational boundaries, they are prone to receiving costly and biased information. Boards of directors could be considered networks of weak ties and efficient vehicles of receiving and transmitting

information. Executives who are external board members of other firms, are not subject, as are internal members, to being involved in the daily operations of the organization. Outside directors are merely invited guests to a firm's board. Outside directors might therefore be characterized as weak ties to the boards on which they serve. Executives have the potential of increasing their power by serving on several boards. The more boards of which an executive is an external member, the more central the executive's position in the business community, and the greater the executive's awareness of pertinent resource transactions.

A number of studies have provided evidence that network centrality leads to the procurement of resources and the attribution of power (Boje & Whetten, 1981; Brass, 1984; Brass & Burkhardt, 1993; Fombrun, 1983; Stearns, Hoffman, & Heide, 1987; Tushman & Romanelli, 1983). Brass (1984) used a survey instrument to assess power of individuals within a network of newspaper companies. He found that individuals were significantly more likely to be perceived as influential if they were central in their networks and had contacts beyond the extent of their normal work requirements. Brass and Burkhardt (1993) also found that network centrality and perceived influence were significantly related. In surveying 225 research and development professionals of a high tech company, Fombrun (1983) found that centrality was just as likely to predict perceptions of individual power as was the individual's position in the firm's hierarchy. Tushman and Romanelli reported that individuals who were linked to both internal and

external sources of information (boundary spanners), had greater perceived influence than those connected to only one informational source.

Research has shown that network centrality of entire organizations yields to the procurement of needed resources. Boje and Whetten (1981) examined network centrality and attributed influence of 17 communities in the Midwest. They reported a significant relationship between perceived community power and the number of joint programs a community had with other communities. Stearns, Hoffman, and Heide (1987) investigated the factors that led to the procurement of advertising resources for 145 television stations over a 15 year period. They reported that stations with interorganizational linkages to other stations were better protected from the effects of environmental complexity and resource scarcity.

Agency theorists have suggested that the monitoring effectiveness of a firm's board may be hampered when its inside directors serve on the same external boards as its outside directors (Harrison & Kaplan, 1991). According to Harrison and Kaplan, an executive serving on the board of a firm in which one of his or her external board members is employed may enhance the self-serving interests of both directors. Both might implicitly agree to defend each others' interests as outside board members in hopes to secure favors for themselves. Interlocking directorates, therefore, potentially dissolve the control mechanisms of the shareholders.

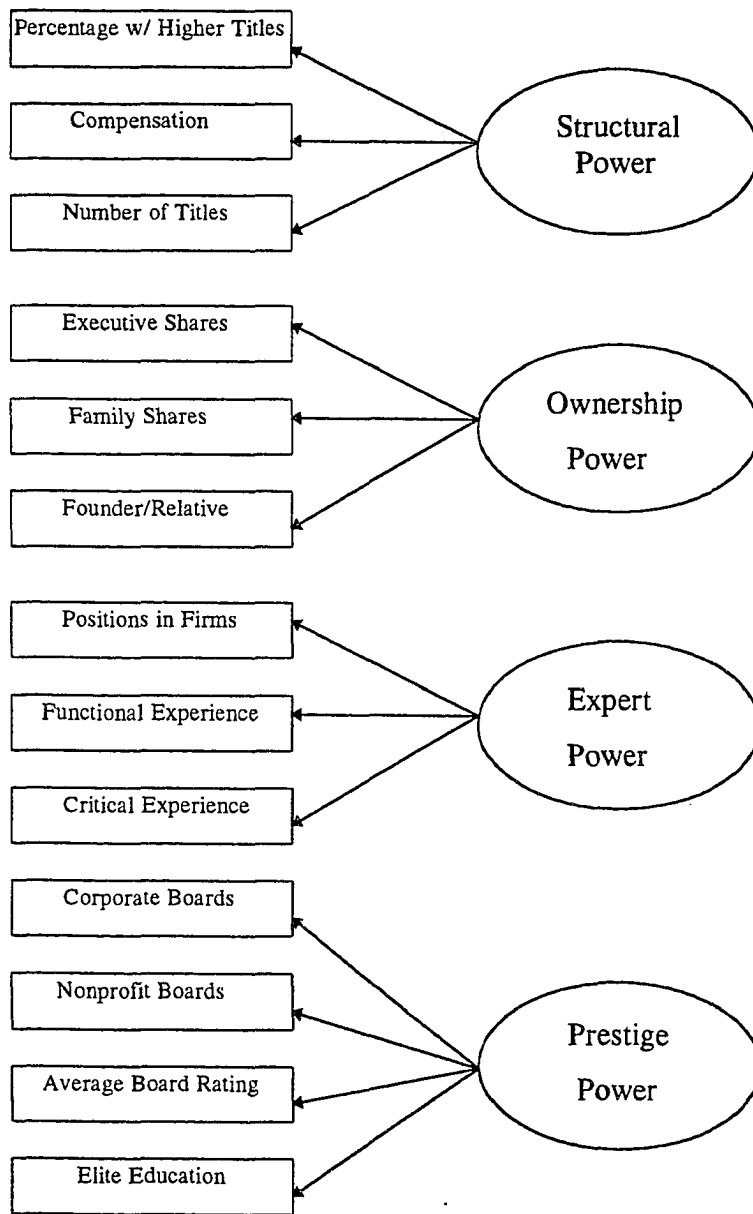
In summary, Finkelstein developed a typology of executive power that includes four dimensions: structural power, ownership power, expert power, and

prestige power. An executive who has a strong standing on these four dimensions is predicted to have the ability to secure a compensation package that is favorable to the executive, as will be discussed later. In developing his model, Finkelstein collected data on a group of 1763 top managers in 102 firms from the computer, chemical, and natural gas industries. Data was collected over a period of five years (1978-82). In a preliminary analysis, the data was factor analyzed, yielding the four power dimensions. The four dimensions tested well for internal consistency and discriminant validity. In a follow-up study, the four dimensions were tested for convergent validity with perceptual measures of power. In this latter study, top managers were asked to complete surveys requiring them to indicate on a seven-point scale each individual's amount of influence on decisions regarding resource allocation, organizational redesign, and acquisition and divestments. The perception of power assessed by the survey instrument positively correlated with three dimensions of power: structural, ownership, and prestige. Thus, strong support was found for three of the four power dimensions. The four power dimensions developed by Finkelstein, along with the indicators used in his preliminary analysis are presented in Figure 1.

One of the purposes of Finkelstein's research was to develop objective indicators of executive power. Perceptual measures are prone to several problems (Downey & Ireland, 1979; Duncan, 1972; Pfeffer, 1981; Snyder & Glueck, 1982). Pfeffer (1981) stated that "the reputational method for assessing organizational power assumes that: social actors are knowledgeable about power within their organizations;

FIGURE 1

Finkelstein's (1992) Model of Executive Power



informants are willing to divulge what they know about power distributions; and such a questioning process will not in itself create the phenomenon under study, power" (p. 55). The objective measures developed by Finkelstein should provide a reliable assessment of executive power within organizations.

Hypotheses

An executive with a strong standing on the four power dimensions delineated by Finkelstein should have an advantage in obtaining his or her self-interests. An executive could use his or her sources of power to convince the board of directors to grant higher levels of pay and structure the compensation package to favor the executives. Whether it is rational for the board of directors to give the executive what he or she desires is an issue that could be debated by agency theorists and researchers from the resource dependency perspective. Both would take different sides on this issue. Resource dependency writers consider resource acquisition a necessary skill for organizational members. Without the employees' abilities to secure critical resources, the organization's viability is in question. Individuals who are adept at enhancing the firm's survival through resource acquisition are those who are most deserving of remuneration. Therefore, executives who have strong standings on the four power dimensions deserve to receive larger amounts of compensation than less powerful executives, according to the resource dependency perspective.

Agency theorists are also concerned about firm viability; however, they place an emphasis on the executive's abilities to work toward shareholders' interests

specifically. Whereas resource dependency theorists consider all the major stakeholders of the firm to be important (employees, customers, board members, shareholders, customers, suppliers, the government), agency theorists treat shareholders as the only significant stakeholders. Shareholders, according to agency theory, are not interested in resource control; they are interested in maximum firm performance regardless of how the executive attains it. From an agency theory perspective, an executive deserves to receive compensation when the performance of the firm indicates that the agent has exerted his or her best effort on the behalf of shareholders.

Agency theorists would treat the four power dimensions as the means the executive has to overcome the requirement of exerting maximum effort to receive compensation. The four sources of power essentially provide executives with opportunities to breach their contracts with shareholders and evade the controlling mechanism of the board of directors. Structural power allows the executive to gain compliance from internal board members through the lines of authority established by the firm's hierarchical structure. Stock owned by the executive may serve to align the interests of the executives and the shareholders. However, an executive with ownership power also can set the performance criteria on which his or her compensatory rewards are based. Ownership power, therefore, provides the executive with the opportunity to obtain higher levels of pay than what is called for by firm performance. Expert power lets the executive tailor organizational information so that

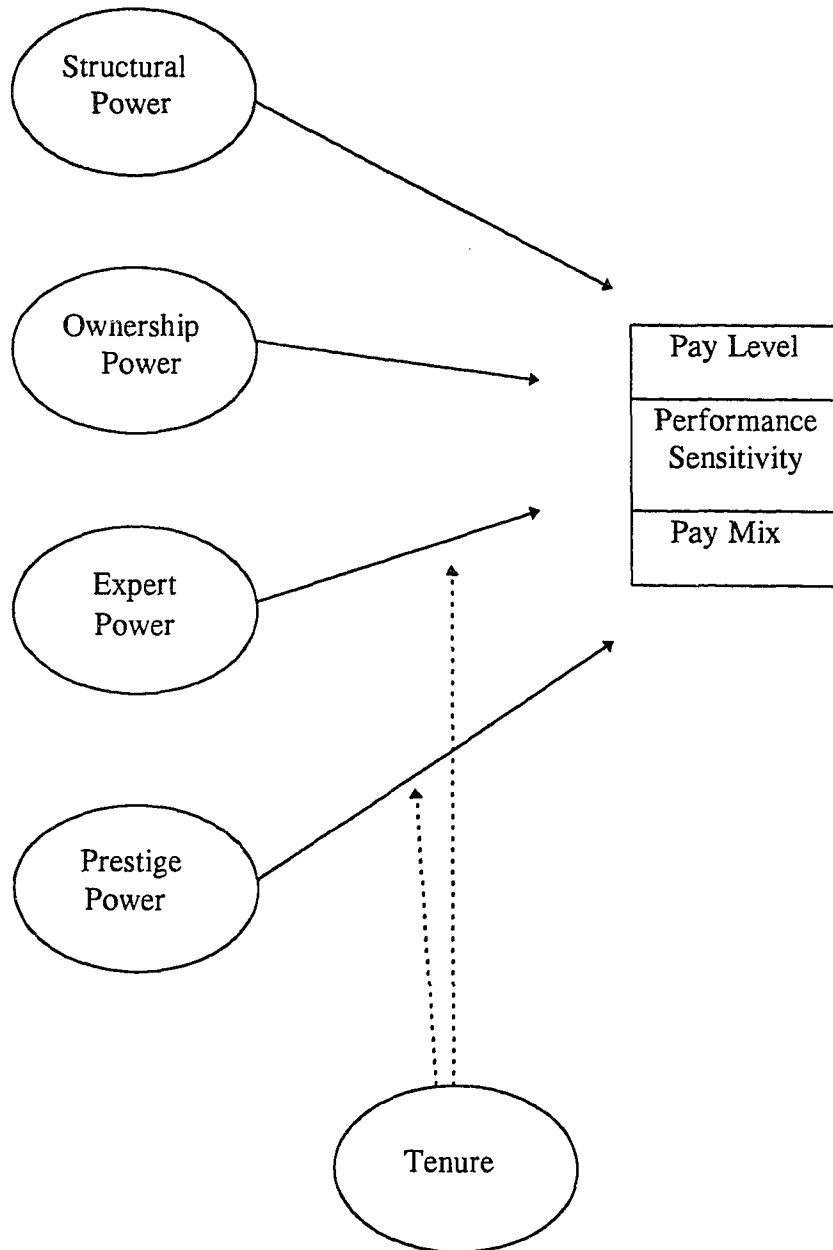
it appears that she/he has worked towards the shareholders' interests. Prestige power and interlocking directorships enable the agents of several firms to form guarantees that they will mutually respect each others' desires. From an agency theory perspective, rewarding the powerful executive with more compensation than a less powerful executive is irrational to the extent that it allows the powerful executive to achieve his or her interests rather than those of the shareholders.

Both the resource dependency perspective and agency theory agree on the point that power benefits the executive. Whether the executive is rewarded for the power to procure resources or if power enhances the self-serving behaviors of the executive with poor integrity, power is expected to lead to higher amounts of compensation. Therefore, it is expected the executive's compensation package will be a reflection of the executive's standing on the four power dimensions. The hypothesized relationships between the four dimensions of power and executive compensation are presented in Figure 2.

Figure 2 depicts three dependent variables that are expected to vary with the four power dimensions. The first dependent variable is pay level. Pay level is defined as the dollar amount of the executive's total compensation package: fixed pay plus variable pay. Fixed compensation is the portion of the pay package that the executive receives on a predictable basis, such as salary. Fixed compensation is opposed to variable compensation, or that portion of the compensation package that consists of rewards that are linked to future performance. Bonuses and long-term incentives are

FIGURE 2

Hypothesized Relationships Between Executive Power and Compensation



forms of variable compensation. The second dependent variable is performance sensitivity, which is defined as the degree to which the executive's total compensation package can be predicted by firm performance indicators. The third dependent variable, pay mix, is the ratio between variable and fixed incomes. Figure 2 also portrays a moderating variable that is expected to alter the relationship between expert and prestige power and the three dependent variables. This moderating variable is the executive's tenure, defined as the executive's length of service with the firm. Tenure and its predicted influence on the relationships between power and compensation will be discussed later.

Power and Pay Level

Agency theorists argue that individuals desire rewards in the form of money because of the resources that it can secure. Executives are motivated to obtain higher levels of compensation to increase their abilities to acquire other resources. Both agency theory and the resource dependency theory allude to personal power as a means the executive has to receive higher compensation packages.

Executives have the opportunity to raise their compensation levels as they increase their structural power within firms. Occupying a top position within the firm's hierarchy enables the executive to control the actions and behaviors of subordinates due to the unconditional compliance that normally comes from legitimized authority. From a resource dependency perspective, the executive with structural power can ensure that subordinates' efforts are directed toward helping the organization

obtain needed resources and putting these resources to effective use once they have been procured. The executive's compensation package should reflect his or her abilities to control the uncertainties of lower-level employees. From an agency theory perspective, the top executive can use his or her authority to manipulate subordinates who are on the board to be sensitive to the desires of the executive. The fear of disgruntling a higher level executive would lead to subservient behavior from internal board members. If the top executive desires to increase his or her pay, subordinate board members are not likely to petition his or her request.

Executives are likely to receive higher levels of compensation as their ownership power increases. Shareholders' uncertainty stems from shareholders' abilities to lobby for changes to the organization's operating procedures. An executive who is also a major shareholder can put a damper on the reforms promoted by the other owners of the firm. Thus, the executive's ability to reduce the uncertainty from shareholders is likely to be rewarded. From an agency theory standpoint, the board of directors is required to see that shareholders' interests are attained. When the executive owns a significant amount of the firm's stock, he or she can dictate to board members what actions should be pursued by the firm and what performance criteria to use. The actions formulated by the executive might include enlarging the size of the firm. A comparison of compensation packages with other executives of large firms may make it appear that he or she deserves a pay increase.

The executive with expert power has had numerous experiences with the firm's stakeholders. From a resource dependency perspective, the expert executive deserves to receive a large pay package to compensate for his or her access to critical resources.

Agency theorists would also predict that executives with expert power would receive higher pay packages than those without it. However, agency theorists would imply that pay is a function of the executive's ability to tailor information so that it appears, to less informed board members, that he or she is deserving of a pay increase.

The prestigious executive who is central in the network of resource transactions should expect to receive a larger compensation package than those who provide guidance solely to the firms in which they are employed. From a resource dependency perspective, the prestigious executive deserves more compensation than less influential executives because of his or her association with those who control resources. The prestige of the executive also brings conformity from board members who have a lower social status. The prestigious executive is likely to receive high pay levels because other board members tried to identify with a high-paying executive. Agency theory predicts that the prestige of the executive that is due to his or her participation in interlocking directorates will bring higher pay packages to all directors involved.

From the arguments presented in both agency theory and resource dependency theory, it is expected that a powerful executive attains a larger total compensation package than less powerful executives. A larger compensation package for the powerful

executive is expected even though, from an agency perspective, this monetary premium comes as a cost to shareholders.

Hypothesis 1: There will be a positive relationship between the executive's amount of total compensation and his or her level of:

- a) structural power,
- b) ownership power,
- c) expert power, and
- d) prestige power.

Power and Performance Sensitivity

Agency theorists argue that the executive deserves to be remunerated for achieving the principals' objective of maximizing firm performance. In order to maximize firm performance, the executive has to take risks and exert effort, actions that individuals presumably wish to avoid. Risk-taking involves the expenditure of resources that does not guarantee at least an equal return. The resulting performance of the firm after poor investment decisions would not justify a pay increase. Rewards that are tied to firm performance indicators are, in themselves, a form of risk to the executive because firm performance is partially based on economic factors that are outside of the executive's control. For the reasons of risk and effort aversion, executives would rather receive compensation that is not strongly based on firm performance. To ensure that the executive does exert effort on the behalf of principals, the board of directors monitors the actions and behaviors of the agent. It is

the board of directors that is responsible for rewarding the executive with equitable amounts of compensation.

An agent who is strong on the four power dimensions may be able to circumvent the control of the board of directors, receiving pay increases that are not justified by firm performance. From an agency theory perspective, executive power does not serve the shareholders well. Resource dependency theorists, on the other hand, view executive power as the ability the executive has to secure additional resources for the firm. From a resource dependence perspective, the executive does deserve to receive compensation for his or her level of power. Firm performance is treated differently by agency theorists and resource dependence theorists. Agency theorists typically use accounting measures, such as return on assets, return on equity, and stock prices to operationalize firm performance. Resource dependence theorists refer to a more subjective measure of firm performance - the organization's control over critical resources.

It could be argued that resource control leads to higher accounting measures of firm performance. An organization that controls resources on which other firms are dependent would be at an advantage in negotiating the sales prices of these resources, establishing economies of scale, and building market share, all of which could increase the firm's profit potential (Porter, 1980). From a resource dependency perspective, powerful executives deserve high amounts of compensation because of their abilities to secure resources, which in turn, helps to increase the performances of their firms. The

empirical literature provides stronger support for agency theorists' arguments, however. Research indicates that there is only a small relationship between executive compensation and firm performance. Based on the empirical literature, it can be predicted that executive power reduces the sensitivity of the executive's pay package to the performance of the firm.

An executive with structural power might reduce the performance sensitivity of his or her pay package by convincing internal board members to pursue a course of action that would ultimately benefit the executive rather than the shareholders. The resulting performance of the firm may not be as good as it could have been, but the executive's pay level would probably remain the same. The executive, due to his or her authority, could even argue for higher levels of pay when industry trends indicate that compensation levels for chief executives are rising.

Ownership power of the executive could serve to reduce the relationship that the executive's pay package has to firm performance indicators, even though executive stockholdings helps to align executive and shareholder interests. As reported earlier, researchers have found a positive relationship between stock ownership and executive tenure (Allen, 1981; Allen & Panian, 1982; Salancik & Pfeffer, 1983). These empirical studies indicate that the executive who is also a significant owner can minimize his or her employment risk due to the control the executive has over the board. Though some executives surely deserve to be replaced for unsatisfactory performances, their controlling interests allow them to secure their positions with their

firms. It appears that the executive who is also a major shareholder has the power to obtain favors from the board that may include a compensation package that benefits the executive rather than the other owners of the firm. Ownership power could enable the executive to reduce his or her pay risk associated with firm performance criteria.

The executive with expert power could attenuate the pay-for-firm relationship by convincing less informed board members that maximum effort had been exerted to increase the performance of the firm. The board of directors would then be obliged to give the executive compensation as a reward for his or her efforts. Unbeknownst to the board, however, the effort of the executive might not have been as strong as what he or she had implied.

Prestige power and the service on multiple boards could also help the executive to receive a large compensation package that is not related to the performance of the firm. Executives belonging to a network of interlocking directorates may desire to avoid creating any possible animosity amongst themselves by granting special privileges to one another and by overlooking pay-for-performance relationships. Thus, it is expected that interlocking directorates weaken the relationship between executive pay and firm performance.

Presuming that power allows the executive to lessen his or her level of pay risk and effort exertion, which reduce the performance sensitivity of the executive's compensation package, the following is predicted.

Hypothesis 2: There will be a negative relationship between the performance sensitivity of the executive's total compensation package and his or her level of:

- a) structural power,
- b) ownership power,
- c) expert power, and
- d) prestige power.

Power and Pay Mix

The variable pay components of the executive compensation package, including bonuses and long-term incentives, is a riskier form of compensation than fixed pay. Unlike base salary and benefits, the executive does not receive variable compensation on a regular and predictable basis. Instead, the amount of variable compensation is tied to pre-established performance criteria. An executive is penalized in the form of receiving less than full payouts under variable pay plans when pre-set performance standards are not met. Therefore, variable pay requires greater performance effort from the agent than does fixed pay.

As mentioned previously, agency theory assumes that individuals abhor effort exertion and risk. Following the reasoning of agency theorists, it can be assumed that agents are opposed to having compensation packages that contain high proportions of variable pay. Agents would rather receive compensation packages that consist of

relatively large proportions of income that are stable and not contingent on performance criteria so that their pay risk is minimized.

From the principals' standpoint, variable pay is the means by which to motivate agents to work on behalf of the principals. Variable compensation serves as a monitoring instrument of the shareholders. Research has shown that in owner-controlled firms, there is a higher proportion of variable pay in the agents' compensation packages and a stronger relationship between executive pay and firm performance (Gomez-Mejia, Tosi, & Hinkin, 1987; Tosi & Gomez-Mejia, 1989; Tosi & Gomez-Mejia, 1992). Additionally, it has been found that shareholders respond favorably to - and corporations engage in greater capital investments with - the adoption of long-term incentive plans (Larcker, 1983). Variable pay is a form of compensation that serves the interests of the shareholders. Variable pay may also benefit the other stakeholders of the firm if it motivates the executive to secure additional resources.

Executives who have power, however, may be able to convince compensation committee members to structure their pay packages so that they contain higher proportions of fixed pay. An executive with structural power would be able to use his or her authority over internal board members to engage in activities that involve little risk. The board might then believe that it not necessary to place an emphasis on the variable pay component of the executive's compensation package. An executive with ownership power could influence board members to give the executive a lower degree

of pay risk than what is required to motivate him or her to work toward maximum firm performance. Expert power would enable the executive to conceal the activities that are necessary to maximize the performance of the firm, which may lead to the belief that variable compensation is not a crucial pay component. Reputational power gained through interlocking directorates secures favorable compensation packages to all the directors involved. Therefore, the following relationships between executive power and his or her pay mix - computed as variable compensation divided by fixed compensation - can be predicted.

Hypothesis 3: There will be a negative relationship between the executive's pay mix and his or her level of:

- a) structural power,
- b) ownership power,
- c) expert power, and
- d) prestige power.

Moderating Variable

The executive's tenure with the firm is hypothesized to moderate the relationship between prestige and expert power and the three dependent variables. According to a study conducted by Murphy (1986), executive compensation becomes increasingly decoupled with firm performance as the executive gains experience with the company. Murphy attributed this growing decoupling to board members' heightened precision over time in estimating the executive's ability to work towards the

principals' interests. When the board of directors become familiar with the executive, there is less of a need to tie the executive's compensation to firm performance criteria because his or her abilities and proclivities toward effort exertion are already known. The trust that board members gain in the executive over time makes it rational to decouple his or her compensation from the performance of the firm (Tosi, Katz, & Gomez-Mejia, 1995).

Murphy labeled the increased knowledge by board members of executive abilities as the "learning hypothesis". The learning hypothesis was contrasted to the "incentive hypothesis", which is defined as the coupling of executive wages to executive productivity that is observed in the current time periods. Incentives awarded in the early years of the executive's tenure are used to motivate the executive to be productive in future periods. However, it is more efficient for firms to base rewards on past productivity than to use compensation as an incentive for future productivity. The income awarded to the executive in a current time period permanently increases the executive's compensation package for future periods, an increase that might not be justified by future effort. According to Murphy, principals can maximize the value of the firm when pay is tailored to past observations of the executive's productivity.

In examining the incentive versus the learning hypothesis, Murphy used a longitudinal sample of 1488 executives from the largest 992 corporations over the time period of 1974 to 1985. Compensation was operationalized as salary plus bonus, and firm performance was measured as the return on common stock. His results showed

support for both the incentive and learning hypotheses. The incentive hypothesis was found to be significant only in the early years of the executive's tenure, however. As executive tenure increased, the pay for performance relationship became weaker, lending support for the learning hypothesis. Specifically, Murphy's results indicated that when the executive had been employed with the firm for less than 4.6 years, there was a significant relationship between the executive's fixed compensation and firm performance. For executive tenures 4.6 years or more, the pay-for-performance relationship was not significant. Furthermore, it was found by Murphy and other researchers (Tosi, Katz, & Gomez-Mejia, 1995), that the number of stock options in executive compensation packages and the value of these options were higher in early years of the executives' tenures than in later years, indicating once again that compensation is used as an incentive only when the abilities of agents are not yet fully known.

Tenure is thus predicted to moderate the effects of executive prestige and expertise on the compensation variables because these forms of power an executive accumulates over his or her length of service with the firm. An executive that is new to the firm does not have the same level of knowledge about the firm and its resource contingencies as a longer-tenured executive. Similarly, it can be expected that the prestige of the executive and his or her opportunity to serve on external boards expands over time. Both agency and resource dependency theorists would argue that compensation reflecting the executive's preferences increases as the executive's

standing on these two power dimensions increases. From a resource dependency perspective, an executive with greater expertise and prestige deserves a lucrative pay package due to the larger number of resources that can be procured for the firm. Board members, from an agency theory perspective, might be more trusting of the executive's abilities when the executive is asked to serve on several boards and is known to have expertise about the firm.

The expertise and prestige of a long-tenured executive should better predict the size and structure of the executive's compensation package than firm performance indicators. Research shows that in addition to executive compensation becoming more decoupled with firm performance as tenure increases, total compensation packages become larger and contain less pay risk (Hill & Phan, 1991; Murphy, 1986; Wade, O'Reilly, & Chandratat, 1990). Therefore, the following are predicted:

Hypothesis 4: The executive's length of service with the firm will strengthen the hypothesized relationships between the executive's level of expert power and his or her compensation. Specifically, tenure should increase the following effects of expert power:

- a) increase the executive's amount of total compensation,
- b) decrease the performance sensitivity of the executive's pay package,
- c) decrease the executive's pay mix ratio.

Hypothesis 5: The executive's length of service with the firm will strengthen the relationships between the executive's level of prestige power and his or her compensation. Specifically, as tenure grows, the prestige of the executive is more likely to have the following effect:

- a) increase the executive's amount of total compensation,**
- b) decrease the performance sensitivity of the executive's pay package,**
- c) decrease the executive's pay mix ratio.**

Chapter 3

METHODS

Sample

The sample consisted of 185 CEOs of Fortune 500 companies, representing 21 two-digit SIC industries. Data was on CEOs who were in their current positions from 1987 through 1990. Unless stated otherwise, all data for this study came from the Executive Compensation Research (ECR) data base developed by Caranikas, Goel, Gomez-Mejia, Cardy, and Grabke (1994). Caranikas et al. obtained compensation data from proxy statements. Equity-based compensation, such as stock options, were included in the ECR data base and were used in the computation of total compensation and the pay mix. Stock options were evaluated by using the Black-Scholes formula; stock prices were obtained from the CRSP data base.

Dependent Variables

Total compensation was computed as the total of variable and fixed incomes. Performance sensitivity was measured as the variance in compensation that is predicted by accounting measures of firm performance (return on assets, return on sales, and return on equity). Firm performance indicators were part of the ECR data base and were originally obtained from COMPUSTAT. Pay mix was measured as variable compensation (bonuses and long-term income) divided by fixed income (salary).

Performance sensitivity was operationalized as the composite of three measures of the strength of the relationship between total compensation and firm performance for each CEO: (1) the z-score difference between total compensation between the years 1990 and 1987 compared to the z-score difference in the sum of three performance measures for the years (ROA, ROE, and ROS), (2) the difference between total compensation actually received the CEOs and what was predicted by a regression equation developed by Crystal (1990) to predict CEO pay levels, which included the independent variables of firm performance, firm size, and industry, and (3) the correlation between total compensation and firm ROE. Whenever it was indicated by these measures that the executive's total compensation package exceeded the levels that would be predicted by firm performance, the executive would receive a score of one. Because there were three measures, the executive potentially could have earned a total of three points for his or her score on the performance sensitivity variable.

Measurement Indicators

The operationalizations of the measurement indicators were similar to those done by Finkelstein (1992).

Measures of Structural Power

Weighted Position. Finkelstein measured this variable as the percentage of executives who had higher positions in the organization than the focal executive. The procedure Finkelstein used to measure this variable was as follows. Finkelstein first counted the number of executives within the organization's dominant coalition and then

assigned a value to each of their positions to represent the hierarchical ranking of their positions. Finkelstein gave an example of the values assigned to each position of a top management team that consisted of a chief executive officer, president, executive vice president, and vice president. The CEO in his example was given a value of 0, the president a value of .25, the executive vice president a value of .5, and the vice president a value of .75. Chief executives were always given a value of "0" with Finkelstein's procedure.

Because CEOs were the only executives under consideration in this study, there was a need to create variance on this measure as well as capture the relative power of CEOs to other executives within firms. This was thought to be best accomplished by applying weight functions to executive titles within each firm. A weight function not only provides the needed variance for chief executive titles, but it also normalizes the distribution of power within firms' top management teams.

Assuming, as did Finkelstein, that structural power is divided among executives, the weight of each executive title was computed and then multiplied by the number of incumbents in each title. The score that the CEO received equaled the weight of the CEO position divided by the total weighted scores. For example, in a firm that had four executive titles, weights were assigned as follows: CEO = .4, President = .3, Executive V.P. = .2, and V.P. = 1. If there is one president, one executive V.P., and two V.P.s, the CEO of that firm received a value of

$.36 = (.4 / [(.4 + .3 + .2 + .1(2)]$). The label of this measurement indicator was changed to "Weighted Position" from Finkelstein's "Percentage with Higher Titles" to represent this alternate measurement procedure. Data used to compute this indicator was obtained from Standard and Poor's Register.

Relative Compensation. Similar to the procedure used by Finkelstein, this measure was computed as the total cash compensation of the CEO divided by the total cash compensation of the next highest paid executive. The label of this measure was changed from "Compensation" to avoid any confusion with the dependent variables used in this study. Data on the compensation of executives other than CEOs were obtained from corporate proxy statements.

Number of Titles. This was computed as the number of titles of the CEO. A CEO could also have the titles of president and chairman, for example. Number of titles were obtained from Marquis' Who's Who in Finance and Industry.

Measures of Ownership Power

Executive Shares. This variable was measured as the percentage of shares owned by the CEO as stated in corporate proxy statements and reported in the ECR data base.

Family Shares. This variable was measured as the percentage of shares owned by the executive's extended family members (parents, siblings, aunts, uncles) as identified in corporate proxy statements.

Founder or Relative. This variable was measured using two values, zero and one: (1) the executive is the founder of the firm or is related to the founder, value equal to 1; (2) the executive is neither the founder nor related to the founder, value equal to 0. Data for this measurement indicator was obtained from Marquis' Who's Who in Finance and Industry.

Measures of Expert Power

Positions in Firm. This variable was measured by counting the number of positions the executive has held within the firm as identified in Marquis' Who's Who in Finance and Industry.

Functional Experience. This variable was measured by counting the number of functional areas in which the executive had experience within the firm. This data was obtained from Marquis' Who's Who in Finance and Industry.

Critical Experience. Identical to the approach used by Finkelstein, the operationalization of this variable was done in three steps. First, sources of uncertainty in the firm's task environment were identified by counting the number of articles in Funk & Scott Predicasts that emphasized supply conditions, demand conditions, production processes, and regulatory conditions. Second, each functional area in which the executive had direct experience was counted; information was obtained by using Marquis' Who's Who in Finance and Industry. Third, the executive's functional experience was matched with task environmental uncertainty; this was achieved by weighting each of the four sources of uncertainty by the relative number of times each

uncertainty area was cited in Funk & Scott Predicasts. Executives received a score equal to the sum of the weights given each uncertainty area in which the executive had functional expertise. Thus, each executive received a score between zero and one.

Uncertainty and functional areas were matched as follows: inputs - purchasing, personnel; outputs - sales and marketing, product R&D; throughputs - operations, accounting, process R&D; regulatory concerns - government, service, law.

Measures of Prestige Power

Corporate Boards. This variable was measured by counting the number of boards of which the executive was a member during 1987-1990 as identified in Marquis' Who's Who in Finance and Industry.

Nonprofit Boards. This variable was defined as the number of nonprofit boards of which the executive was a member during 1987-1990 as stated in Marquis' Who's Who in Finance and Industry.

Average Board Rating. This variable was measured by averaging the stock rating given in Standard & Poor's Stock Surveys of the companies in which the executive was an external board member.

Elite Education. Finkelstein included elite education as an indicator of executive prestige because it was reported by Useem (1979) that executives who have a prominent status within society (i.e., multiple directors), had earned their degrees at prestigious schools. Identical to Finkelstein's operationalization of this variable, CEOs received a score ranging from zero to three as follows: 0 = no formal higher

education, 1 = both undergraduate and graduate degrees were from non-elite schools, 2 = either undergraduate or graduate degree was from an elite school (but not both), 3 = both undergraduate and graduate degrees were from elite schools. The schools the executives attended were obtained from Marquis' Who's Who in Finance and Industry.

Finkelstein obtained his list of elite schools from Useem and Karabel (1986). He revised Useem and Karabel's list by adding two military academies, the United States Military Academy and the United States Naval Academy, and by including all of the top ten national universities and liberal arts colleges that were reported in U.S. News and World Report (1987). For the current study, Finkelstein's list of elite schools were used, but a similar revision was made. Schools that had an average ranking of ten or better over the period of 1987-1990 as stated in U.S. News and World Report, and that were not included by Finkelstein, were used in this current study. This revision yielded the addition of two schools to Finkelstein's list: Duke University and California Institute of Technology. The list of elite educational institutions used in this current study is given in Appendix A.

Control Variables

As reported earlier, firm performance and firm size influenced on the compensation packages of executives (Allen, 1981; Agarwal, 1981; Coughlin & Schmidt, 1985; Dyl, 1988; Gomez-Mejia, Tosi, & Hinkin, 1987; Jensen & Murphy, 1990; Kroll, Simmons, & Wright, 1990; Lewellen & Huntsman, 1970; McGuire, Chiu, & Elbing, 1962; Murphy, 1985; Murphy, 1986; Prasad, 1974; Tosi & Gomez-

Mejia, 1989; Tosi & Gomez-Mejia, 1994; Tosi, Warner, & Gomez-Mejia, 1995; Schmidt & Fowler, 1990). In addition, it has been found that research and development intensity of a firm is positively related to the amount of variable compensation and pay mix in executive compensation packages (Balkin & Gomez-Mejia, 1987; Caranikas, Goel, Gomez-Mejia, Cardy, & Grabke, 1994; Milkovich, Gerhart, & Hannon, 1991). Therefore, firm size, firm performance, and R&D intensity were controlled in this study. Firm performance was measured as return on assets, return on sales, and return on equity (Caranikas et al.). Firm size was measured as the logarithm of firm sales (Balkin & Gomez-Mejia, 1987; Caranikas et al.; Hill & Snell, 1988; Tosi & Gomez-Mejia, 1989). R&D intensity was computed as the ratio of R&D expenditures to number of employees (Caranikas et al., Gomez-Mejia & Welbourne, 1990). All data for the control variables were given in the ECR data base and were originally obtained from COMPUSTAT.

Analysis of the Direct Effects of Power

Hypotheses 1(a) through 3(d) were tested using structural equation modeling and ran on LISREL7. Covariances were used for the analysis. Figures 1 and 2 respectively depict the measurement and structural models that were tested. Structural equation modeling has advantages to other methodologies that have been used to examine executive compensation levels in the past, including the ability to analyze several equation systems simultaneously and to identify causal relationships among latent variables (Byrne, 1989; Joreskog & Sorbom, 1989; Loehlin, 1987). Several

indices were used to test the fit of implied to sample correlations: the goodness-of-fit index, the adjusted goodness-of-fit index which accounts for the degrees of freedom in the model, the comparative fit and normed fit indices which estimate the degree to which a hypothesized model fits the data better than one of no relationships, and the root-mean-squared residual.

Moderator Analysis

Tenure was defined as years of service with the firm and was included in the ECR data base. Data for this variable was originally obtained from Business Week. The effects of the power/tenure interactions on executive compensation were tested using hierarchical, moderated regression analysis. LISREL would not permit the use of the traditional procedures of splitting the sample to find the effects of moderation, which was likely due to sample size limitations. When the sample was split at a point to where there was a fairly equal number of executives in each group (i.e., 28 years of service), it was found that the proposed power and pay relationships model could only be tested on the high-tenured executives (n=88). In order to run the model on the low-tenured executives (n=97), the model had to be drastically re-specified. That is, a single indicator of each construct in the model had to be given, resulting in a fully-parameterized model. Comparing the fit of a fully-parameterized model between two groups is not possible because no meaningful statistics for these types of model are given (i.e., chi-square=0; GFI=1; zero residuals). Several attempts were made to find a different splitting point, such as the mean (27.41 years), and the median

(30 years), but these did not enable the predicted model to be tested for the low-tenured group. Moreover, increasing the sample size of the low-tenured groups by using a higher splitting point resulted in the same complications for the high-tenured executives as it did for the low-tenured executives when a lower splitting point was used.

Hierarchical regression provides statistics on the unique variation that is explained by the variables that are later added to the regression model. To test the moderating effect of tenure on the power to pay relationships, two steps were used in the hierarchical analysis. The first step included the control variables, the power constructs, and the tenure variable. The second step added the cross-product terms of tenure multiplied by the power constructs. All data was centered before running the regressions to reduce multicollinearity between the first- and second-order terms and to simplify the interpretation of their beta weights (Aiken & West, 1991). The power constructs were computed as the composite of factor loading scores of the measurement indicators that were obtained from a preliminary exploratory factor analysis. Each measurement indicator was multiplied by its factor score obtained from the factor analysis and then summed with the other weighted measurement indicators. The vector in the factor matrix that represented the factor loadings for a particular power construct provided the scores needed for the computation of that power construct. An additional hierarchical, moderated regression analysis was conducted by regressing the compensation variables onto to each individual power indicator.

Chapter 4

RESULTS

Table 1 gives the correlations and descriptive statistics for the measured variables. All measures of a particular power construct were significantly correlated with each other with the exception of the measures underlying the structural and prestige power constructs.

Factor Analyses

Both exploratory and confirmatory factor analyses of the power measurement indicators were conducted to test the robustness of the executive power model developed by Finkelstein. Table 2 depicts the factor matrices that were obtained from the exploratory analysis with the maximum likelihood method of extraction and the oblique method of rotation. As expected, four factors were extracted based on the eigenvalue-one test, providing initial support for the notion that the 13 measures underlie the four power constructs.

The exploratory analysis revealed a few inconsistent findings with those reported by Finkelstein. Finkelstein found in his study that expert power was not strongly supported. In the current analysis, structural power, not expert power, was found to be weakly supported, as there was only one structural power indicator that had a significant loading (relative compensation). However, all three measures of expert

TABLE 1
Means, Standard Deviations, and Correlations^a

VARIABLES	MEAN	s.d.	1	2	3	4	5
1 Weighted position	2.07	1.16					
2 Relative compensation	1.63	.49	.02				
3 Number of titles	2.24	.52	.04	.21**			
4 Executive shares	.02	.06	.12	-.15	-.11		
5 Family shares	.02	.13	.17*	.19	-.08	.31**	
6 Founder/relative	.11	.32	.11	-.09	-.09	.34**	.25**
7 Number of positions	6.08	3.15	-.23**	-.07	.20**	-.16*	-.08
8 Functional experience	.96	.92	-.04	.01	.01	-.06	-.04
9 Critical experience	.33	.33	-.04	.00	.03	.05	.08
10 Corporate boards	2.25	2.09	-.08	.10	-.06	-.05	.00
11 Nonprofit boards	1.94	2.74	-.07	-.03	-.04	-.01	.00
12 Average board rating	.47	.29	-.09	-.01	-.11	-.02	-.05
13 Elite education	1.63	.84	-.05	-.01	.07	-.02	-.08
14 Pay level	2,666,252	3,139,253	-.12	.05	.11	-.13	-.06
15 Performance sensitivity	2.66	1.04	-.09	.07	-.04	-.07	.00
16 Pay mix	2.10	2.65	.06	.04	.14	-.04	-.09
17 Return on assets	.32	.55	-.06	.14	.08	.11	.08
18 Return on equity	.21	.60	.10	.03	.10	.01	.01
19 Return on sales	.35	.54	-.09	.00	.06	.05	.10
20 Log of sales	7.95	1.00	-.40**	-.06	.03	-.21**	-.13
21 R&D/employee	5.21	5.97	-.04	.06	.07	-.04	-.06
22 R&D/sales	.03	.04	-.03	.01	.11	-.06	-.07

TABLE 1, cont.

VARIABLES	6	7	8	9	10	11	12	13	14
7 Number of positions	-.14								
8 Functional experience	-.07	.46**							
9 Critical experience	.04	.53**	.35**						
10 Corporate boards	.04	.02	-.07	.00					
11 Nonprofit boards	-.05	.13	.11	.17*	.25**				
12 Average board rating	-.08	.05	-.06	.05	.58**	.25**			
13 Elite education	-.08	-.08	-.07	-.13	.10	.01	.05		
14 Pay level	.05	.03	.00	-.04	.06	.00	.03	.08	
15 Performance sensitivity	-.10	-.03	-.14	-.03	.05	-.20**	-.09	.16*	-.05
16 Pay mix	.08	-.09	-.05	-.08	-.01	-.02	-.01	.06	.71**
17 Return on assets	.02	-.03	-.08	-.05	.07	.03	.02	.03	.15*
18 Return on equity	.00	-.03	-.01	-.03	-.04	-.03	-.10	-.05	.03
19 Return on sales	-.03	.03	-.03	.09	.04	.11	-.01	.11	.08
20 Log of sales	-.06	.33**	.12	.17*	.03	.16*	.14	.03	.39**
21 R&D/employee	.01	-.11	-.08	-.03	-.11	.00	-.05	.15*	.21**
22 R&D/sales	.00	-.14	-.09	-.06	-.10	-.04	-.01	.17*	.21**

VARIABLES	15	16	17	18	19	20	21
16 Pay mix	.01						
17 Return on assets	-.15*	.03					
18 Return on equity	-.15*	-.01	.18*				
19 Return on sales	-.09	.00	.75**	.06			
20 Log of sales	.01	.14	-.11	-.03	-.08		
21 R&D/employee	-.04	.25**	.28**	.01	.41**	-.01	
22 R&D/sales	.02	.32**	.14*	-.03	.28**	-.04	.89**

^a n = 185

* p < .05

** p < .01

TABLE 2

Results from the Exploratory Factor
Analysis of the Power Measurement Indicators:
Factor Matrix from Oblique Rotation^a

POWER INDICATORS	Factor 1 Structural Power	Factor 2 Ownership Power	Factor 3 Expert Power	Factor 4 Prestige Power
Weighted position	.00	.25	-.16	-.14
Relative compensation	.98	-.02	-.01	.00
Number of titles	.25	-.19	.18	-.11
Executive shares	-.18	.60	-.06	-.05
Family shares	.16	.54	.03	-.05
Founder/relative	-.12	.53	-.06	-.04
Number of positions	.04	-.26	.88	.10
Functional experience	.08	-.09	.52	-.04
Critical experience	.05	.09	.63	.07
Corporate boards	.01	-.06	-.07	.76
Nonprofit boards	-.05	-.05	.08	.31
Average board rating	-.09	-.11	-.04	.76
Elite education	-.03	-.13	-.13	.10

^a The measurement indicators assigned by Finkelstein to represent each power construct are in boldface.

power strongly loaded onto the expert power construct. In addition, the indicator of elite education weakly loaded onto prestige power and other power factors.

A confirmatory factor analysis of the power model was conducted using LISREL. The confirmatory analysis also revealed that structural power, rather than expert power, was the unreliable construct. In fact, the model did not converge when the structural power indicators were included in the analysis. Again, all measures of expert power were found to significantly load onto expert power. Furthermore, the measurement indicator of elite education failed to significantly load onto prestige power or onto any other construct.

In attempts to improve the four-factor power model, individual measurement indicators of structural power were dropped from the analysis one at a time, so that a total of three additional configurations of structural power were tested and ran in LISREL. These revised models failed to converge, however. In addition, the non-significant variables were recoded to try to attain a satisfactory fit of the Finkelstein model to the data used in this study. For example, instead of having four values represent elite education, this variable was dummy-coded so that the value of one represented executives who went to elite schools and zero for those who did not. Attempts to make modifications to the non-significant indicators resulted in worse-fitting models, however.

There were indications that several variables were not normally distributed. In particular, extreme kurtosis characterized the percentage of shares owned by the

executive, percentage of shares owned by the executive's family, and the number of functional areas in which the executive had experience. In addition to transforming problem variables, a technique for handling non-normal samples is to analyze the data using weighted least-squares. It is possible that the weighted least squares technique would have yielded a stronger four-factor model. However, in order to employ this procedure, a larger sample size than what was used in this research is needed.

Limiting the power model to three power constructs (ownership, expert, and prestige), and dropping elite education from the prestige construct improved the power model with the maximum likelihood procedure. All measurement indicators significantly loaded onto their respective power constructs. Furthermore, several fit indices revealed that the model provided an excellent fit to the data (chi-square=25.71, $p=.368$; goodness-of-fit index (GFI)=.971; adjusted goodness-of-fit index (AGFI)=.946; comparative fit index (CFI)=.99; normed fit index (NFI)=1.0). Additionally, the squared multiple correlation for all the measurement indicators combined was extremely high ($R^2 = .981$), indicating that the power constructs accurately predicted most of their respective measurement indicators. The root mean square residual value was also small (RMSR=.053).

It seemed reasonable at this point to exclude structural power from further analyses. Not only did the confirmatory model test well without this construct, but it is also safe to assume that structural power, the way it was operationalized in this study, did not fully capture the distribution of power within organizational hierarchies because

only one structural level was considered (level of CEO). The standardized solution for the three-factor model is presented in Figure 3.

Test of Direct Effects

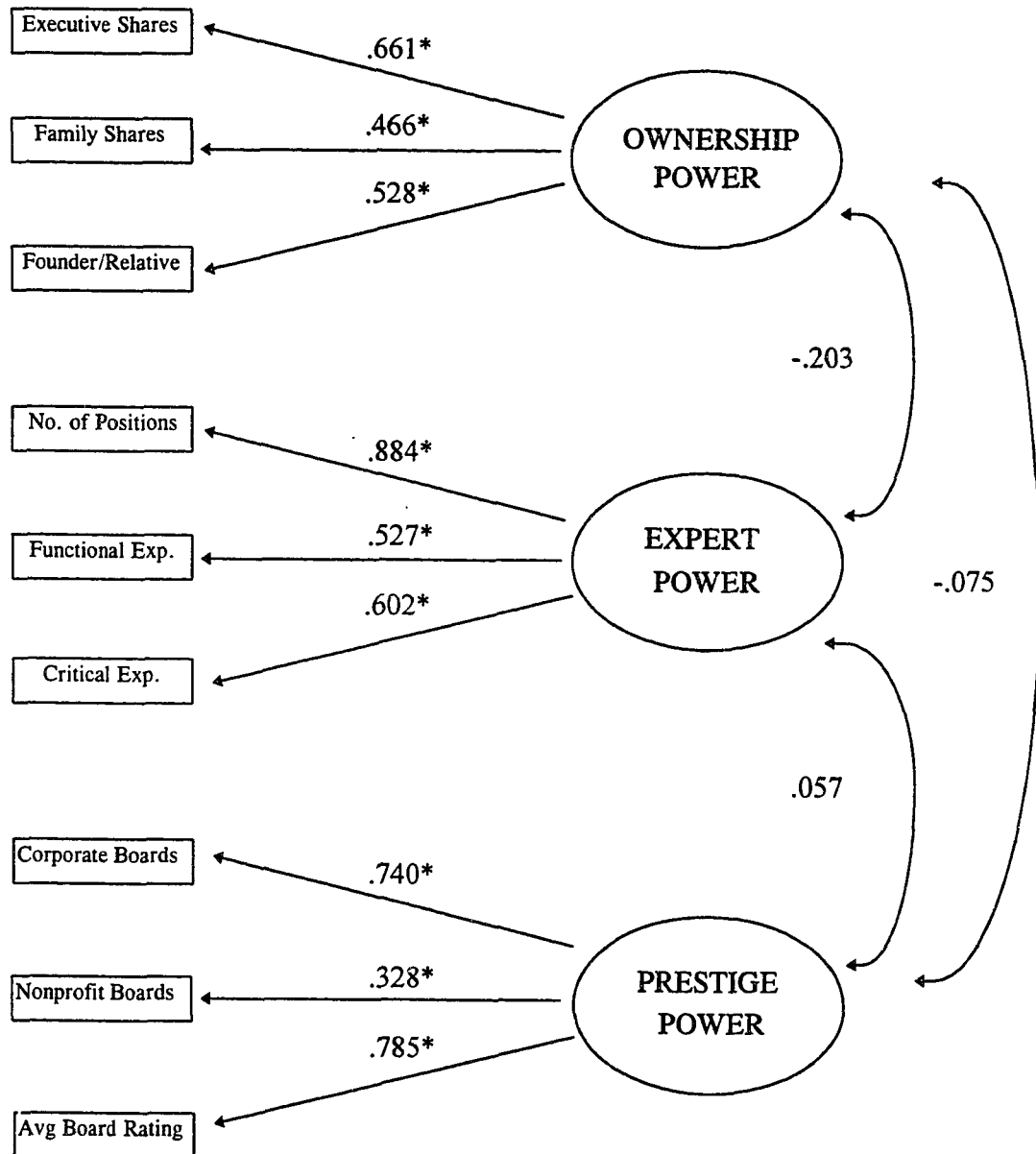
Figure 4 presents the relationships, in standardized form, between the three power constructs (ownership, expert, and prestige), three control variables (firm performance, R&D intensity, and firm size), and three dependent variables (pay level, performance sensitivity, and pay mix). The fit statistics for this model were very good ($\chi^2 = 70.04$, $df = 60$, $p = .176$; $GFI = .955$; $AGFI = .910$; $CFI = .98$; $NFI = .88$; $RMSR = .047$), lending initial support for the predicted relationships.

In the model of direct effects, the correlations among the independent variables (phi matrix) and the correlations among the dependent variables (psi matrix) were allowed to be freely estimated by LISREL in order to examine the extent to which power might indirectly influence the compensation variables and to provide guidance for the exploratory analysis that was later conducted. Both the phi and psi matrices are presented in Table 3. Significant correlations were found between the three forms of power and firm size, firm performance and R&D intensity, and the pay level and pay mix disturbance terms. Figure 4 depicts these significant correlations in addition to the hypothesized direct effects.

Power Effects on Pay Level. Figure 4 portrays that the only significant relationships to total compensation found were the control variables (firm size, firm

FIGURE 3

Confirmatory Factor Model



$\chi^2 = 25.71, 24 \text{ dfs}, (p = .368)$ CFI = .99
 GFI = .971 NFI = 1.0
 AGFI = .946 RMSR = .053

* Parameter estimate/standard error (critical ratio) > 2.0.

FIGURE 4

Power Direct Effects on Compensation

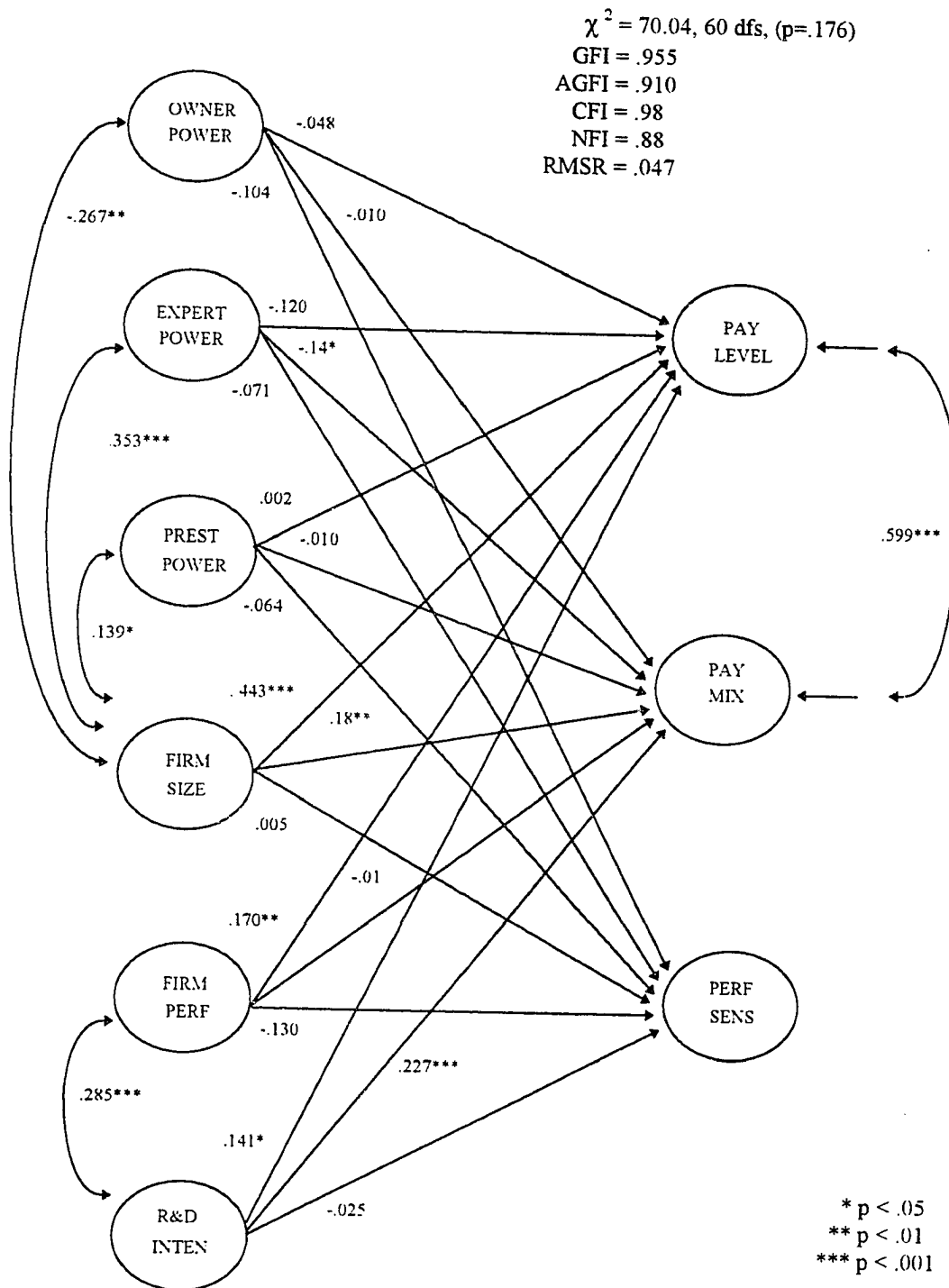


TABLE 3

Correlations Among the Constructs in the Direct Effects Model

Phi Matrix					
CONSTRUCTS	1	2	3	4	5
1 Ownership power					
2 Expert power	-.21				
3 Prestige power	-.07	.06			
4 Firm size	-.27**	.353***	.14*		
5 Firm performance	.14	-.04	.06	-.12	
6 R&D intensity	-.05	-.12	-.10	-.02	.29***

Psi Matrix		
CONSTRUCTS	1	2
1 Pay level		
2 Pay mix	.599***	
3 Performance sensitivity	-.03	.01

- * p < .05
 ** p < .01
 *** p < .001

performance, and R&D intensity); therefore, there was no support for the predicted significant and positive effects of power on pay level (Hypotheses 1(a), 1(b), and 1(c)). Firm size had the strongest relationship to pay level as might be expected from prior research. Only prestige power had a positive, albeit an extremely small, effect on pay level (path coefficient = 0.002).

Power Effects on Pay Mix. Figure 4 depicts that all three forms of power were negatively related to pay mix, as predicted by hypotheses 3(b), 3(c), and 3(d). However, only expert power had a significant effect ($t\text{-value} = -1.635$, $p < .05$), supporting Hypothesis 3(c). Hypothesis 3(c) predicted that executives who have expert power can maximize their self-interests in the form of pay by reducing the emphasis on the fixed versus variable components of their pay packages. R&D intensity and firm size had opposite effects on pay mix than did expert power. The test of direct effects indicated that research intensive firms emphasized variable compensation, which is typical of organizations with rapidly changing environments and technologies (Gomez-Mejia & Balkin, 1992). Large firms appear to provide their executives with lucrative compensation packages that consist largely of variable compensation, indicating that executives obtain their wealth as a function of both firm size and incentive pay.

Power Effects on Performance Sensitivity. Figure 4 indicates that the three forms of power were all negatively related to performance sensitivity as predicted by Hypotheses 2(a), 2(b), and 2(c); however, none of these direct effects reached

statistical significance. The test of direct effects indicated that neither power nor the control variables serve to decouple executive earnings from firm performances.

Moderator Analysis

The interaction effects of tenure with the power constructs are presented, in standardized form, for the relationships of power to pay level, pay mix, and performance sensitivity in Tables 4, 5, and 6, respectively. Both ownership power and prestige power were found to interact with tenure in predicting compensation. Ownership power was found to interact with tenure such that ownership power increases compensation and the amounts of variable pay relative to fixed pay for low-tenured executives (see Figures 5(a) and 5(b)). Moreover, the ownership power and tenure interaction significantly added to the variance explained in total compensation (R^2 change = .02, $p < .05$). However, it only marginally increased R-square in the equation predicting pay mix (R^2 change = .02, $p < .10$).

As predicted by Hypothesis 5(a), there was some evidence that prestigious executives are able to increase their amounts of total compensation as a function of their tenure (see Figure 5(c)). The prestige x tenure effect was found to be only marginally significant and only when it was entered with the other cross-product terms in the equation ($\beta = .13$, $p < .10$). When the prestige power/tenure interaction was entered individually, its effect on pay level proved to be non-significant. Because the beta weight for the prestige/tenure interaction was stronger when all power/tenure

TABLE 4
Moderated Regression Results:
Regression Coefficients and R² Changes
Power x Tenure Effects on Pay Level

	1	2	3	4	5
CONTROL					
Firm size	.44***	.45***	.45***	.44***	.43**
Firm performance	.15*	.14*	.14*	.15*	.15*
R&D intensity	.15*	.10	.13+	.14*	.12+
MAIN					
Ownership power	.05	.10	.10	.06	.04
Expert power	-.06	-.11	-.10	-.08	-.06
Prestige power	.05	.02	.07	.05	.00
Tenure	-.09	-.08	-.08	-.08	-.10
INTERACTION					
Ownership power x tenure		-.16*	-.14*		
Expert power x tenure		.03		.03	
Prestige power x tenure		.13+			.12
R ²	.23***	.26***	.25***	.23***	.24***
ΔR^2		.03+	.02*	.00	.01
+ p < .10					
* p < .05					
** p < .01					
*** p < .001					

TABLE 5
 Moderated Regression Results:
 Regression Coefficients and R^2 Changes
 Power x Tenure Effects on Pay Mix

	1	2	3	4	5
CONTROL					
Firm size	.18*	.19*	.19*	.18*	.17*
Firm performance	-.02	-.03	-.03	-.02	-.02
R&D intensity	.22***	.20**	.20**	.22**	.21**
MAIN					
Ownership power	.07	.11	.12	.06	.07
Expert power	-.06	-.05	-.10	-.02	-.06
Prestige power	.02	.02	.04	.02	.01
Tenure	-.15+	-.19*	-.15+	-.19*	-.15+
INTERACTION					
Ownership power x tenure		-.14+	-.15+		
Expert power x tenure		-.10		-.10	
Prestige power x tenure		.04			.02
R^2	.11**	.13**	.12**	.11**	.11**
ΔR^2		.02	.02+	.01	.00
+ $p < .10$					
* $p < .05$					
** $p < .01$					
*** $p < .001$					

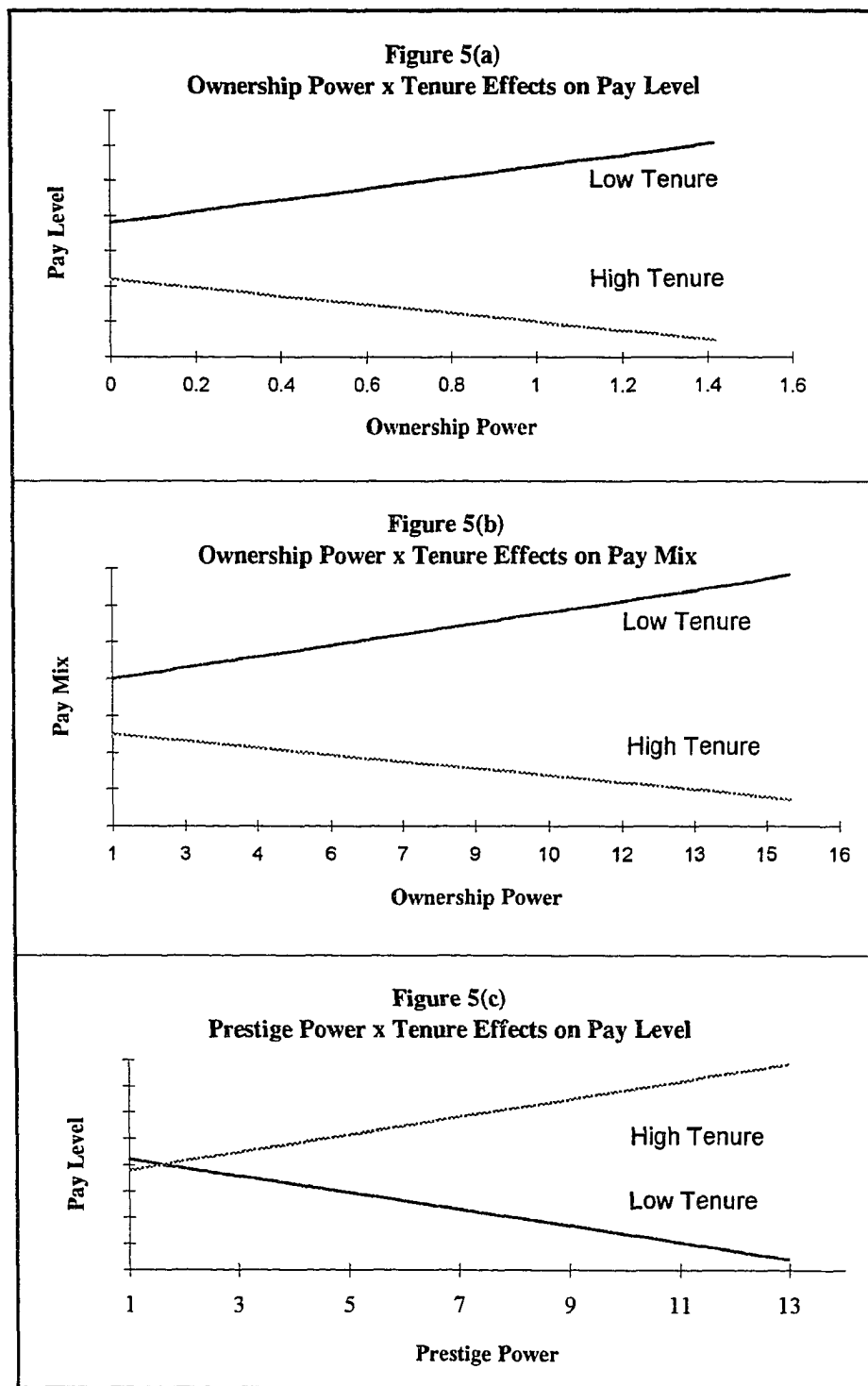
TABLE 6

Moderated Regression Results:
Regression Coefficients and R^2 Changes
Power x Tenure Effects on Performance Sensitivity

	1	2	3	4	5
CONTROL					
Firm size	.00	.00	.00	.00	.00
Firm performance	-.15+	-.14+	-.14+	-.15+	-.15+
R&D intensity	.00	.02	.01	.00	.01
MAIN					
Ownership power	-.10	-.14	-.13	-.11	-.10
Expert power	-.07	-.02	-.05	-.04	-.07
Prestige power	.03	.02	.01	.03	.04
Tenure	.04	.01	.04	.01	.04
INTERACTION					
Ownership power x tenure		.11	.10		
Expert power x tenure		-.07		-.07	
Prestige power x tenure		-.03			-.02
R^2	.03	.05	.04	.04	.04
ΔR^2		.01	.01	.00	.00
+ $p < .10$					
* $p < .05$					
** $p < .01$					
*** $p < .001$					

FIGURE 5

Significant Power/Tenure Interaction Effects on Compensation



interactions were entered reveals a possible multicollinearity problem associated with this cross-product term (Aiken & West, 1991). The regression results when the compensation variables were regressed onto the cross product terms that consisted of the individual power indicators are presented in Appendix B.

Exploratory Analysis

The direct effects analyses revealed few significant relationships between the power constructs and the compensation variables. The strongest findings pertained to the compensation components that constitute risk for the executive, pay mix and performance sensitivity, which the executive with expert power and/or ownership power is able to reduce. There is also marginal evidence suggesting that the executive is able to lessen these forms of risk as his/her tenure with the firm increases.

Indirect relationships between power and compensation were also tested. In the direct effect analyses, the three forms power were significantly and consistently correlated with firm size. Firm size, in turn, was consistently found to have highly significant direct effects on pay level and pay mix. These findings indicate that executive power, in conjunction with firm size, may be influencing executive compensation packages.

Following agency theory rationale and using the above results as a guide, the model was reconfigured to have firm size serve as a mediating variable between ownership power and the other two forms of power. Ownership power was negatively correlated with firm size in the direct effects analyses, suggesting that executives who

are also owners of the firm are taking measures to minimize firm-enlargement strategies. According to agency theorists (cf. Jensen & Meckling, 1976), executives whose interests are aligned with the other owners' of the firm pursue strategies that favor long-term firm performance. Excessive diversification is not such a strategy, as it has been found to result in profitability losses for acquiring firms (cf. Herman & Lowenstein, 1988). The influence that is granted to executives who are significant owners suggests that this type of power might causally precede strategic decisions affecting firm size. Firm size, therefore, is treated as a downstream variable in the exploratory model. To provide an additional test of the incentive alignment proposition, the reconfigured model also tests a direct influence of ownership power on firm performance.

Expert power and prestige power, on the other hand, might be better treated as outcomes of firm size. According to Agarwal (1981), CEOs gain more expertise as their companies get larger. As a firm increases in size, the CEO position grows in complexity, and requires a broader knowledge in order to handle such issues as a larger span of control, additional environmental complexities, and unrelated business-units (Gomez-Mejia & Balkin, 1992). Firm size, therefore, might determine the magnitude of expertise that is attained by the executive.

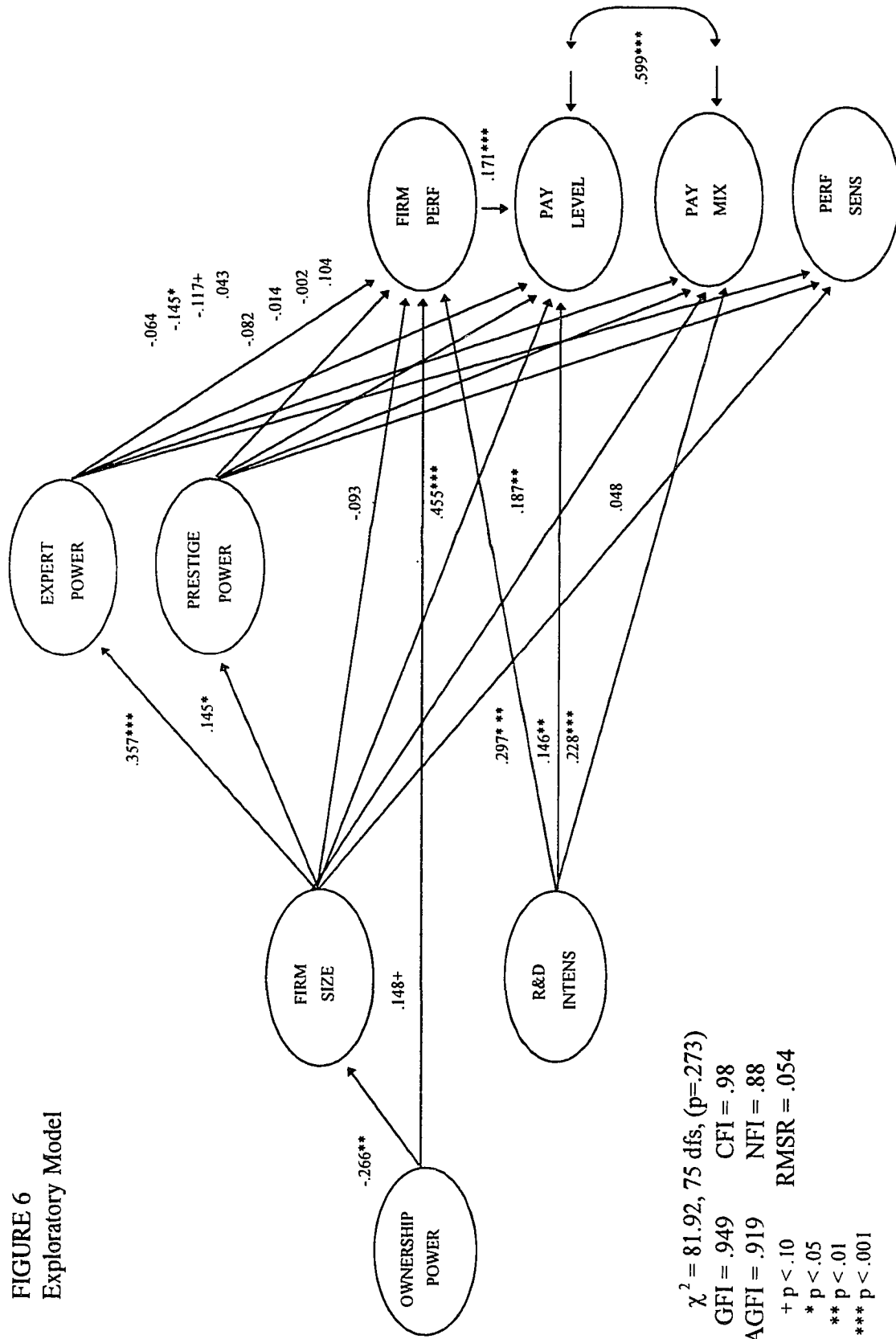
Firm size is also likely to lead to greater executive prestige. It is often suggested by agency theorists that executives who are not under complete control of the firm's owners will pursue firm-enlargement strategies for the sake of gaining greater

visibility in addition to larger compensation packages (Ahimud & Lev, 1981; Dyl, 1988; Hill & Snell, 1988; Kroll, Simmons, & Wright, 1990). According to Useem (1979), executives of a large firms are attributed a higher status than executives of smaller firms.

The three compensation variables were posited to be directly affected by firm size, expert power, prestige power, and R&D intensity. The model of the new relationships, with its standardized solution, is presented in Figure 6. The results indicated that the exploratory model fit the data very well ($\chi^2 = 81.92$, $df = 75$, $p = .273$; GFI = .949; AGFI = .919; RMSR = .054).

As expected, the effect of ownership power on firm size was negative and significant (t-value = -2.544, $p < .01$), and the effect of ownership power on firm performance was positive and marginally significant (t-value = 1.522, $p < .10$). On the other side of model were expert power, which had a highly significant relationship to firm size (t-value = 3.846, $p < .001$), and prestige power, which was also significantly predicted by firm size (t-value = 1.702, $p < .05$). Firm size, in turn, was significantly related to pay level (t-value = 6.268, $p < .001$), supporting the argument presented by the early managerialists (cf. Berle and Means, 1932) that executive decision-making is directed toward increasing firm size. Firm performance was also significantly related to pay level (t-value = 3.482, $p < .001$) as was R&D intensity (t-value = 2.169, $p < .01$). Unfortunately, expert power and prestige power did not have the predicted

FIGURE 6
Exploratory Model



relationships to total compensation. Moreover, expert power was negatively, but only marginally, related to pay level (t-value=-1.491, $p < .10$).

Firm size also significantly predicted pay mix (t-value=2.382, $p < .01$), as did R&D intensity (t-value=3.191, $p < .001$). Only expert power had the expected effect on pay mix out of the two power dimensions (t-value=-1.683, $p < .05$). Performance sensitivity was not significantly predicted by any of the variables in the model, although its relationship to expert power and prestige power were negative.

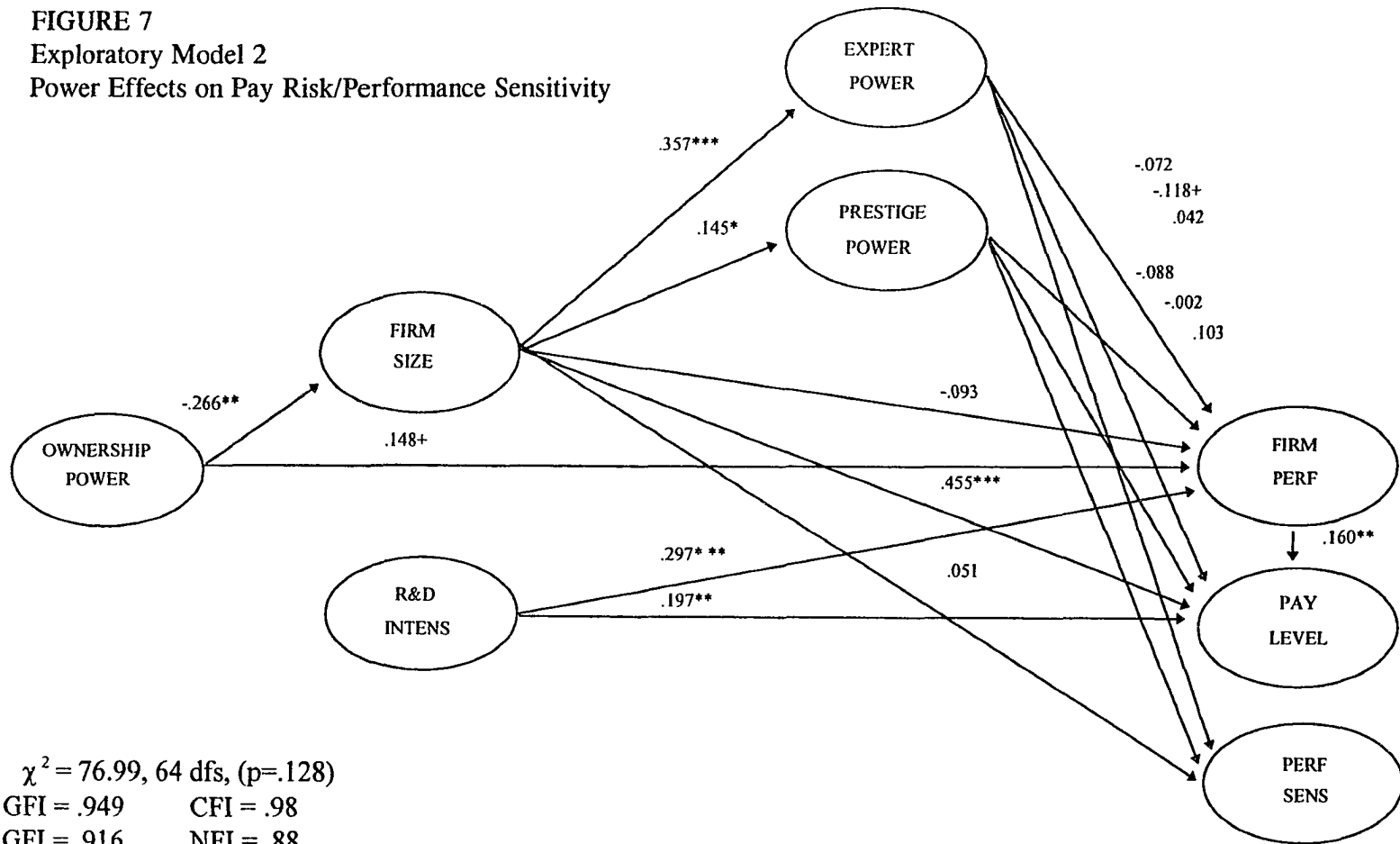
To test if firm size, expert power, and prestige power have any deleterious effects on the firms' owners, these three variables (in addition to R&D intensity) were allowed to directly influence the firm performance variable in the reconfigured model. As mentioned earlier, strategies implemented primarily to increase the size of the firm are not always in the best interest of the firm's shareholders as they often result in profitability and efficiency losses. It is therefore expected that firm size would be negatively related to firm performance. This, in fact, was found to be the case as the coefficient for the firm size-firm performance path was negative. Its effect, however, was not significant.

Executives who have expertise about their firms and prestige in the business community may be able to use their influence to get their own agendas approved without paying heed to the interests of the firms' owners. It would therefore be expected that expert power and prestige power would be negatively related to firm performance. The results of the exploratory model indicated, however, that these two

forms of power positively influence firm performance; but again, their effects are not significant. The only variable in the model that significantly predicted firm performance was R&D intensity (t-value=4.250, $p < .001$).

A consistent finding in all the models tested in this study was a significant and positive correlation between pay level and pay mix. This is surprising because self-interested executives who desire to increase their compensation levels should also be motivated to reduce their risk associated with variable pay. However, the models tested indicate a positive, not a negative, relationship between these two variables. To explore this issue, the reconfigured model was ran an additional time without the pay mix variable in attempts to increase power effects on performance sensitivity. Significant negative relationships with performance sensitivity, be it either direct with expert power or prestige power or indirect with ownership power, would indicate pay risk for the executives. Alternatively, insignificant or positive relationships would reveal that the executives' compensation packages, including their pay mix ratios, are not truly presenting risk. The results of the modified model are presented in Figure 7; and, as might be apparent from the previous models, indicate that performance sensitivity is not significantly related to the power constructs, providing a rationale for the positive correlation between pay level and pay mix.

FIGURE 7
Exploratory Model 2
Power Effects on Pay Risk/Performance Sensitivity



$\chi^2 = 76.99, 64 \text{ dfs}, (p=.128)$
 GFI = .949 CFI = .98
 AGFI = .916 NFI = .88
 + $p < .10$ RMSR = .054
 * $p < .05$
 ** $p < .01$
 *** $p < .001$

Chapter 5

DISCUSSION

This study continued the seventy year-long stream of research on the determinants and components of executive pay packages. Agency theory is the primary framework that has guided this study and a majority of the past research on executive compensation. Agency theory predicts that the magnitude of monetary rewards can be directly determined by the financial performances of firms, as executives (agents) are rewarded by shareholders (principals) in the form of compensation for maintaining the viability of their firms. Thus, a strong relationship between firm performance and executive compensation should be evident. However, the numerous attempts to find the determinants of executive compensation have found only modest pay-for-performance relationships.

A potential missing causal link between compensation and firm performance was explored in this study. Both agency theorists and managerialists have proposed that a power imbalance, which favors agents, attenuates the agency contract and grants executives the freedom to pursue their own financial self-interests. Indeed, research has found that executive compensation is significantly related to shareholder dispersion and the breakdown of the board monitoring mechanism (Allen, 1981; Baysinger & Butler, 1985; Dyl, 1988; Fosberg, 1989; Gomez-Mejia, Tosi, & Hinkin, 1987; Hill & Snell, 1988; Kosnik, 1987; Kosnik, 1990; Tosi & Gomez-Mejia, 1989). Thus,

executive power is a potentially stronger determinant of executive compensation than traditional firm performance indicators.

The model of executive power developed by Finkelstein (1992) that was used to test the power and compensation relationships received partial support from factor analyses conducted in this study. Results from both exploratory and confirmatory factor analyses indicated that nine out of the 13 power measures successfully loaded onto the theoretical power dimensions originally proposed by Finkelstein (1992). By eliminating the non-significant items, the confirmatory analysis provided a well-fitted model comprising three dimensions of executive power. Ownership power is the ability of the executive to pursue self-interests due to his or her legal authority over the operating decisions of the firm, including choices regarding monetary rewards. The ownership dimension of power may also serve to align interests between the executive and the other owners of the firm, motivating the executive to pursue performance-maximizing strategies. Expert power creates a dependency on the executive for his or her knowledge of organizational resources, environmental contingencies, and firm activities. The executive with expert power has the potential ability to tailor information so that it appears to other board members that he or she deserves a pay increase. Prestige power portrays to the other members of the board that the executive has affiliations with prominent members of society that could provide resources needed for organizational survival. The executive with prestige power is likely to be rewarded

for his or her contacts with the business elite and for the potential to include the other board members in the resource network.

A fourth dimension of power proposed by Finkelstein was not supported in the factor analyses. Structural power, which characterizes the distribution of executive authority that based on the hierarchy of the firm, resulted in a less than satisfactory model. The measurement model including this power dimension did not fit the data, and the indicators of structural power did not significantly represent this construct. Because this study was limited to the CEO position, the sample may not have captured the validity of the structural measurement indicators. In fact, the indicators of all the power constructs in the model may have been subject to range restriction. However, range restriction would affect structural power the most because, unlike the other power constructs, it was intended to measure the distribution of power within the executive hierarchy, not of just one executive position. For this reason, future research is needed to examine the four-factor model with samples consisting of executives from several hierarchical levels.

Hypothesis 1 predicted positive relationships between compensation level and (b) ownership power, (c) expert power, and (d) prestige power. The results testing the structural model found no direct effects of each individual form of power on pay level. Instead, the findings indicated strong relationships between the three forms of power and organizational size. Firm size, in turn, was significantly and positively related to pay level, which is consistent with the early managerialists' prediction that firm size is

a major determinant of the magnitude of executive compensation packages (cf. Berle & Means, 1932). The significant correlations between power and firm size and the significant direct effect of firm size on pay level potentially indicate that powerful executives take measures to increase the sizes of their firms to obtain larger compensation packages. According to managerialists, executives have the motivation to diversify because larger firms pay more, and executives are free to pursue firm-enlargement strategies because of shareholder dispersion. However, diversification might not be in the best strategic interests of shareholders (Agarwala, 1981; Dyl, 1988; Kroll, Simmons, & Wright, 1990; Schmidt & Fowler, 1990). Because atomistic owners are removed from the firm's operating decisions and choices regarding board appointments, executives have the discretion to pursue firm-enlargement strategies. The results of this study appear to support the managerialists' contention that executives are making strategic decisions that are not directed at shareholders' interests except, of course, in the situation in which executives are major shareholders themselves.

The standardized coefficients reveal in standard deviation (SD) units how much a downstream variable would change given a one-unit (SD) increase in the preceding variable, holding the effects of other causal variables in the model constant. For example, in the firm size to pay level path, an increase in one SD unit of firm size (measured as the log of sales) would increase the executive's pay package by \$1,390,689 ($.443 \times 3,139,253$). Similarly, a one-unit SD increase in firm performance would increase the executive's pay level by \$533,673. By increasing R&D intensity by

one SD unit (measured as the log of R&D expenditures per employee), the executive can expect to receive a raise in total pay of \$442,634. The pay increases brought about by firm size is larger than that yielded by R&D intensity and firm performance, indicating that executives have the potential for more compensation without maximizing the interests of the shareholders. This ability to raise pay through firm enlargement is greatest among executives who have expert and prestige power, as these two power forms were positively correlated with firm size. For example, the total effect of expert power in the direct effects model, which includes the effect of expert power on pay (-.120) plus the indirect effect of pay level when expert power is transmitted through firm size (.443*.353), indicates that a one-unit SD increase in expert power boosts executive pay by \$114,203. Similarly, a one-unit SD increase in prestige power raises the executive's pay by \$199,584. These tests of total effects are not robust, however, because the direct effects of expert power and prestige power to pay level were not significant.

Hypothesis 2 predicted negative relationships between performance sensitivity and (b) ownership power, (c) expert power, and (d) prestige power. Though the direct effects of power on performance sensitivity to this variable were all negative, none of the power constructs, including control variables, significantly affected this variable. In retrospect, the non-significant findings of power associated with performance sensitivity are not that surprising given that the significant path from firm performance to total pay indicates a coupled relationship between firm performance and

compensation. What is indicated by the direct effects model is that compensation is tied to both firm size and to firm performance. The performance to pay path may explain the insignificant negative relationships between power and performance sensitivity. The computation of indirect effects to performance sensitivity would be insubstantial due to the weak paths leading to this variable.

Performance sensitivity is a form of risk to the executive because it implies that the executive has to exert effort on the behalf of shareholders to increase his or her pay. Rational and self-interested executives would rather receive pay that is not contingent on performance measures, as this could ultimately lead to less compensation when strategies implemented by the executive fail. Like most people, executives prefer compensation that is received on a consistent and predictable basis.

Similar to the predictions given in Hypotheses 2 (b through d), Hypothesis 3 gets at the risk aversion associated with executive compensation, specifically the relative emphasis placed on the variable pay versus fixed pay components. Hypothesis 3 predicted that executive pay mix, operationalized as variable pay divided by fixed pay, would be negatively related to (b) ownership power, (c) expert power, and (d) prestige power. Tests of the direct effects of power on pay mix yielded the expected negative relationships. However, only the path from expert power to pay mix was significant, revealing that executives who have privileged knowledge about their firms are able to convince compensation committee members to reduce the emphasis placed on incentive compensation. It may not be all that counter-intuitive that a

significant relationship to pay mix was found with only expert power. Expert power may enable executives to tailor their compensation to meet their interests more than would the other forms of power because expert power makes the executive influential on three accounts. In addition to being attributed power simply because of one's knowledge, the expert executive can conceal relevant information that would help to determine the best strategies for the firm and the appropriate compensation package for the executive. Furthermore, the executive's expertise may be valuable to other companies, so the expert executive has other possible employment opportunities to pursue if he or she is dissatisfied with his or her current position. Such perceived marketability may increase his economic worth to the board of directors. The ability to harbor relevant information and the greater likelihood of giving the board of directors an early termination notice add to the influence that comes from one's perceived expertise. Ownership power and prestige power do not imply additional privileges; they only suggest that executives are influential to the extent that they are significant stock holders and members of a high social class.

Out of the control variables, firm size and R&D intensity positively predicted pay mix. R&D intensity, as might be expected from prior research (cf. Balkin & Gomez-Mejia, 1987), was the most significant of the two. The significant paths indicate that the executive will increase his or her pay mix ratio by 60 percent with a one-unit SD increase in R&D intensity and by 48 percent with a one-unit SD increase in firm size. Alternatively, the executive can reduce his or her pay mix ratio by 37

percent per a one-unit SD increase in expert power. The total effect of expert power, which includes the direct path of expert power going to pay mix, plus the indirect effect path of expert power going to firm size and then to pay mix, reduces the executive's pay mix ratio by 20 percent.

It was surprising to find a strong, positive correlation between the pay level and pay mix variables since both were assumed to present opposite degrees of satisfaction for the executive. A greater amount of total compensation should please the executive, but sizeable variable compensation relative to fixed pay should dissatisfy an executive who is averse to having unpredictable pay components as a major part of his or her compensation package. What was also surprising is that firm size, which executives presumably want to increase for self-interested reasons, was positively related to pay mix. These findings indicate that variable pay is not actually a high form of risk because it is almost certain to bring a larger total compensation package. In fact, criticisms are made about the opportunities executives have to engage in insider trading, making stock options lucrative components of their pay packages (cf. Lublin, 1995). Furthermore boards have been accused of resetting the option price when the value of the stock falls (Crystal, 1990). Contrary to an ideal agency model, firm performance is not significantly related to pay mix, and pay mix does not appear to be related to risk sharing among principals and agents.

So then, why is expert power negatively associated with pay risk? A possible explanation is that the expert executive, because of his or her opportunity to take

advantage of information asymmetries and other job prospects, is able to successfully reduce his or her pay mix ratio. Unbeknownst to the executive, however, he or she is losing out on receiving a higher total pay package. In fact, the path from expert power to pay level was negative. If pay mix is truly aligning the interests between executives and shareholders, then there would be a positive relationship between firm performance and pay mix and a negative relationship between pay level and pay mix.

Hypotheses 4 and 5 predicted significant tenure interaction effects on the compensation variables. Hypothesis 4 pertained specifically to the tenure interaction with expert power and its effect on (a) pay level, (b) performance sensitivity, and (c) pay mix. Similarly, Hypothesis 5 concerned the interaction of tenure with prestige power. Out of the moderator predictions, only the prestige power/tenure interaction was found to have a significant, but marginally, stronger effect on pay level (Hypothesis 5(a)), indicating that long-tenured executives gain higher levels of total compensation as their prestige increases. However, other significant power/tenure interactions results were obtained. Although not predicted, ownership power was found to significantly interact with tenure such that higher levels of total compensation and variable pay accrue to executive owners only if they are short-tenured. It appears that executives who are significant owners of the firm are attributed power immediately due to their legal status, which is exemplified in large compensation packages but that contain more variable pay relative to fixed pay. It may be that executives with ownership power are able to break away from the traditional method of tying pay to

objective indicators that the board uses to motivate short-tenured executives (Murphy, 1986). Ownership power appears to provide short-tenured executives with the ability to obtain the compensation that they prefer. Executive owners may even be powerful enough to successfully negotiate lucrative compensation packages as newcomers to the firm - pay packages that provide opportunities for increasing both their pay and power further, such as stock options.

Agency theorists posit that an alignment of interests between principals and agents can be obtained when the agent becomes part-owner of the firm. This, in fact, was found to be true in the exploratory analysis. In the exploratory model, ownership power significantly and negatively predicted firm size, and marginally and positively predicted firm performance. Furthermore, the effect of ownership power on firm performance, when transmitted through the firm size variable, was significantly positive, indicating that executives with ownership power are taking measures to keep firm-enlargement strategies to a minimum which are, in turn, having significant positive effects on firm performance. Also following agency theory propositions, firm size significantly and positively predicted expert power and prestige power. Again, only expert power was found to have a significant effect on the compensation variables. However, in addition to the expert power to pay mix path being significant, expert power was also found to be marginally and negatively related to total compensation.

Contributions and Limitations

Power has been referred to as the missing link between executive pay and firm performance (Steers & Ungson, 1987). The loss of shareholder control of the firm has often been used to explain the weak pay-for-performance relationship. Although often implied as a major determinant of executive compensation, power has never been directly operationalized or tested for its effects on levels and components of executive pay packages. Consequently, a major contribution of this study is that a model designed specifically to test executive power was used to examine both direct and indirect relationships between power and the structure of executive compensation packages. More specifically, this study provided supporting evidence that executives can directly reduce their risks associated with variable pay by increasing their expertise about their organizations and to indirectly influence the size and structure of their compensation packages through ownership power and firm size. Furthermore, there is some evidence that executives accumulate power to reduce their pay risk as their tenures with their firms increase.

An additional contribution of this research is that the relationships between power, compensation, and the control variables were tested using structural equation modeling. Structural equation models permit the control of measurement errors that bias estimates of causal effects. Most of the studies on executive compensation have examined single and direct associations among variables, overlooking indirect effects and the possibility that several of the measures may underlie a single factor. As such,

this research contributed to the understanding of power, its dimensions, and the relationships between the individual power dimensions on compensation. Additionally, the use of structural equation models permits the simultaneous testing of several cause-effect relationships that are suggested by theory.

This study also incorporated a behavioral determinant of executive compensation into agency theory. Economic models are normally limited in their assumptions about human behavior and are simplistic in their definitions of social constructs. Agency theorists regard executive power simply as a cost to shareholders that is emanated from self-interest. This study was able to extend the definition of power within the agency theory framework by identifying several underlying dimensions of power and their individual contributions to the principal-agent relationship. More specifically, this study found that executive power serves as both an antecedent to and a consequent of strategy implementation, which, in turn, affects pay and firm performance.

Finally, one additional contribution of this research is that it provided partial support for the executive power model developed by Finkelstein. This study found that the Finkelstein model could be successfully employed in a comprehensive test of the effects of power on compensation, firm performance, firm size, and R&D intensity. Unfortunately, not all of power dimensions of the Finkelstein model could be supported. Consequently, one of the limitations of this study is that only one hierarchical level was used to examine executive power. Despite the extensive attempts

to capture the distribution of power within firm hierarchies with only the level of CEO in the sample, structural power could not be significantly identified with the measurement indicators used.

A second limitation of this research concerns sample size. Although the sample size of 185 permits adequate structural equation analysis using the maximum likelihood procedure (Anderson & Gerbing, 1984), it did not permit the split-sample analysis in LISREL. Furthermore, there were indications that the variables used in this study were not normally distributed. However, in order to employ the method of weighted least squares to adjust for non-normality, the sample should consist of at least 300 observations to permit an adequate sample size after the cross-tab computations (Jereskog & Sorbom, 1989).

Finally, an additional limitation of this study concerns the dilemmas associated with archival research. Finkelstein developed a model partially intended to provide objectivity for the researcher. However, as Gomez-Mejia and Balkin (1992) would attest, relying on archival data presents a “false sense of objectivity”. Among the problems of archival research are the following: variations in the way companies compute executive compensation and firm performance, executive use of creative accounting techniques to bolster profitability measures, and inconsistent information among data sources. This study used data strictly from archival sources and is therefore subject to these limitations.

Future Research

Following the dilemmas presented above on archival research, future studies on executive power might be improved with the simultaneous use of subjective and objective measures to fully capture the dynamics of power within organizations (Pfeffer, 1981). Research that is based on the perceived power of the executive could provide confirmation to the results found in this study. Alternatively, asking subjects (e.g., board members) to identify powerful executives on the four dimensions might provide new insights into the power and compensation relationships, possibly indicating non-linear relationships as expected in this study, or new power dimensions altogether.

The model developed by Finkelstein, although empirically supported and seemingly comprehensive, may have excluded other aspects of power. In particular, the influence that is attributed individuals for their abilities to reward, punish, and coerce (French and Raven, 1959) are features of power that were not directly tested. Future investigations of the power-to-compensation relationships should consider including the French and Raven power typology for comprehensiveness, as it has received decades of empirical testing and confirmation. Additionally, studies might be improved over this one with a larger sample size and with data collected on executives from several hierarchical levels. A more extensive sample than the one used here, would serve to provide a substantial investigation of structural power and would permit the use of methodologies that can test the relationships between non-normally distributed variables.

An additional suggestion for future research would be to expand agency theory and its definition of principal and executive performance. Although it is not the purpose here to scrutinize agency theory, the concern by researchers for the lack of empirical findings pertaining to the pay-for-performance relationship suggests that other possible contingencies facing executives need to be explored. Meyer and Zucker (1989) stated that accounting measures of executive performance are imperfect because they do not reflect the interests of multiple groups who are dependent upon the organization. A recent view of executive responsibilities is that executives are not only required to pay heed to the interests of the shareholders, but also to the other constituents of the firm, including clients, suppliers, competitors, employees, government, and the general public. Furthermore, the obligations that executives have to these other stakeholders are not necessarily financial in nature. For example, it has been suggested that executives are evaluated by their political skills and their effectiveness in serving as boundary spanners for their organizations (Steers & Ungson, 1987). It may be that agency theory has taken too narrow of a view in its definition of the principal and the executive performance criterion. As such, an expansion of the agency framework may be an avenue for future research.

To summarize, this study contributed to the executive compensation literature by incorporating a comprehensive definition of power into the agency theory framework and directly measuring and testing its oft-assumed effects on executive compensation. As hypothesized, this study found that power directly affects the risk

components of executive pay packages. Additionally, this study confirmed the agency theory propositions regarding the causal order of the power constructs on organizational strategy and compensation. A stronger test of the effects of power on compensation could be done with a larger sample size that includes executives from several hierarchical levels. Despite sample-size limitations, this study provided a richer understanding of how power affects executive compensation.

REFERENCES

- Agarwal, N.C. 1981. Determinants of executive compensation. Industrial Relations, 20, 36-46.
- Ahimud, Y. & Lev, B. 1981. Risk reduction as a management motive for conglomerate mergers. Bell Journal of Economics, 12, 605-617.
- Aiken, L.S. & West, S.G. 1991. Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage Publications.
- Allen, M.P. 1981. Power and privilege in the large corporation: Corporate control and managerial compensation. American Journal of Sociology, 86, 1112-1123.
- Allen, M.P. & Panian, S.K. 1982. Power, performance, and succession in the large corporation. Administrative Science Quarterly, 27, 538-547.
- Anderson, J. & Gerbing, D. 1984. The effect of sampling error on convergency, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. Psychometrika, 49, 155-173.
- Antle, R. & Smith, A. 1986. An empirical investigation of the relative performance evaluation of corporate executives. Journal of Accounting Research, 24, 1-39.
- Aoki, M. 1984. The cooperative game theory of the firm. Oxford, U.K.: Clarendon Press.

- Astley, W.G. & Sachdeva, P.S. 1984. Structural sources of intraorganizational power: A theoretical synthesis. Academy of Management Review, 9, 104-113.
- Baker, G., Jensen, M., & Murphy, K.J. 1988. Compensation and incentives: Practice vs. theory. The Journal of Finance, 43, 593-616.
- Balkin, D.B. & Gomez-Mejia, L.R. 1987. Toward a contingency theory of compensation strategy. Strategic Management Journal, 8, 169-182.
- Baum, J.A.C. & Oliver, C. 1991. Institutional linkages and organizational mortality. Administrative Science Quarterly, 36, 187-218.
- Baumol, W.J. 1958. On the theory of oligopoly. Economica, 25, 187-198.
- Baumol, W.J. 1959. Business behavior, value, and growth. New York: MacMillan.
- Baysinger, B. & Butler, H. 1985. Corporate governance and the board of directors: Performance effects of changes in board composition. Journal of Law, Economics, and Organizations, 91, 101-125.
- Bentson, G.J. 1985. The self-serving management hypothesis: Some evidence. Journal of Accounting and Economics, 7, 67-84.
- Berle, A.A. & Means, G.C. 1932. The modern corporation and private property. New York.

- Boje, D.M. & Whetten, D.A. 1981. Effects of organizational strategies and contextual constraints on centrality and attributions of influence in interorganizational networks. Administrative Science Quarterly, 26, 378-395.
- Brass, D.J. 1984. Being in the right place: A structural analysis of individual influence in an organization. Administrative Science Quarterly, 29, 518-539.
- Brass, D.J. & Burkhardt, M.E. 1993. Potential power and power use: An investigation of structure and behavior. Academy of Management Journal, 36, 441-470.
- Bucharach & Lawler 1980. Power and Politics in Organizations. San Francisco: Jossey-Bass Publishers.
- Byrne, B.M. 1989. A primer of LISREL: Basic applications and programming for confirmatory factor analytic models. New York: Springer-Verlag New York, Inc. .
- Byrne, J.A. & Bongiorno, L. 1994, April 25. That eye-popping executive pay: Is anybody worth this much? Business Week, 52-59.
- Caranikas, F.C., Goel, S., Gomez-Mejia, L.R., Cardy, R.L., & Grabke, A.M. 1994. CEO compensation, research and development intensity, and subjective assessment of performance. Academy of Management Proceedings.

- Ciscel, D.H. & Carroll, T.M. 1980. The determinants of executive salaries: An econometric survey. Review of Economics and Statistics, 62, 7-13.
- Coase, R. 1937. The nature of the firm. Economica Nov, 386-405.
- Coughlin, A.T. & Schmidt, R.M. 1985. Executive compensation, management turnover, and firm performance: An empirical investigation. Journal of Accounting and Economics, 7 1, 43-66.
- Crystal, G.S. 1990. The great Ceo pay sweepstakes. Fortune, 68-78.
- Downey, H.K. & Ireland, R.D. 1979. Quantitative vs qualitative: Environmental assessment in organizational studies. Administrative Science Quarterly, 24, 630-637.
- Duncan, R.B. 1972. Characteristics of organizational environments and perceived environmental uncertainty. Administrative Science Quarterly, 17, 313-327.
- Dyl, E.A. 1988. Corporate control and management compensation: Evidence on the agency problem. Managerial and Decision Economics, 9 1, 21-25.
- Eisenhardt, K.M. 1988. Agency & institutional explanations of compensation in retail sales. Academy of Management Journal, 31, 488-511.
- Emersen, R.M. 1962. Power-dependence relations. American Sociological Review, 27, 31-41.
- Falbe, C.M. & Yukl, G. 1992. Consequences for managers of using single influence tactics and combinations of tactics. Academy of Management Journal, 353, 638-652.

- Fama, E.F. 1980. Agency problems and the theory of the firm. Journal of Political Economy, 88, 288-307.
- Fama, E.F. & Jensen, M.C. 1983. Separation of ownership and control. Journal of Law and Economics, 26, 327-349.
- Finkelstein, S. 1992. Power in top management teams: Dimensions, measurement, and validation. Academy of Management Journal, 35, 505-538.
- Fombrun, C.J. 1983. Attributions of power across a social network. Human Relations, 36, 493-508.
- Fosberg, R.H. 1989. Outside directors and managerial monitoring. Akron Business & Economic Review, 20, 24-32.
- French, J.R.P. & Raven, B. 1959. The bases of social power. In D. Cartwright (Eds.), Studies in Social Power. Ann Arbor, MI: Institute for Social Research.
- Gomez-Mejia, L.R. & Balkin, D.B. 1992. Compensation, organizational strategy, and firm performance. Cincinnati: South-Western Publishing Co.
- Gomez-Mejia, L.R., Tosi, H., & Hinkin, T. 1987. Managerial control, performance, and executive compensation. Academy of Management Journal, 30, 51-70.

- Gomez-Mejia, L.R. & Welbourne, T.M. 1990. The role of compensation in the human resource management of strategies of high technology firms. In M.A. Von Glinow & S.A. Mohrman (Eds.), Managing Complexity in High Technology Organizations, pp. 255-277. New York: Oxford University Press.
- Granovetter, M.S. 1973. The strength of weak ties. American Journal of Sociology, 78, 1360-1380.
- Harrison, J. & Kaplan, M. 1991. Corporate board interlocks and business relationships. Paper presented at the Academy of Management 1991 Annual Meeting, Miami, FL.
- Herman, E.S. 1981. Corporate control, corporate power. New York: Cambridge University Press.
- Herman, E.S. & Lowenstein, L. 1988. The efficiency effects of hostile takeovers. In J.C. Coffee, L.Lowenstein, & S. Rose-Ackerman (Eds.), Knights, raiders, and targets. New York: Oxford University Press.
- Hill, C.W. & Phan, P. 1991. CEO tenure as a determinant of CEO pay. Academy of Management Journal, 34, 712-717.
- Hill, C.W. & Snell, S.A. 1988. External control, corporate strategy, and firm performance in research-intensive industries. Strategic Management Journal, 9, 577-590.

- Ibarra, H. 1993. Network centrality power, and innovation involvement: Determinants of technical and administrative roles. Academy of Management Journal, 363, 471-501.
- Jensen, M.C. & Meckling, W.H. 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3, 305-350.
- Jensen, M.C. & Murphy, K.J. 1990. Performance and top management incentives. Journal of Political Economy, 98 2, 225-264.
- Joreskog, K.G. & Sorbom, D. 1989. LISREL 7: A guide to the program and applications. Chicago: SPSS Inc.
- Kanter, R.M. 1983. Power failure in management circuits. In Allen, R.W. & Porter, L.W. Eds., Organizational Influence Processes. Palo Alto, CA: Scott, Foresman and Company.
- Kenny, D.A. & Judd, C.M. 1984. Estimating the nonlinear and interactive effects of latent variables. Psychological Bulletin, 96, 201-210.
- Kerr, J. & Bettis, R.A. 1987. Boards of directors, top management compensation and shareholder returns. Academy of Management Journal, 30, 745-664.
- Kosnik, R.D. 1987. Greenmail: A study of board performance in corporate governance. Administrative Science Quarterly, 322, 163-185.

- Kosnik, R.D. 1990. Effects of board demography and director's incentives on corporate greenmail decisions. Academy of Management Journal, 22, 129-150.
- Kroll, M., Simmons, S.A., & Wright, P. 1990. Determinants of chief executive officer compensation following major acquisitions. Journal of Business Research, 20, 349-366.
- Larcker, D.F. 1983. The association between performance plan adoption and corporate capital investment. Journal of Accounting and Economics, 53, 3-30.
- Lewellen, W.G. & Huntsman, B. 1970. Managerial pay and corporate performance. American Economic Review, 60, 710-720.
- Loehlin, J.C. 1987. Latent variable models: An introduction to factor, path, and structural analysis. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.
- Lublin, J.S. 1995. Executive pay: Raking it in. Wall Street Journal, April 12, R1-R15.
- Marris, R.L. 1964. The economic theory of managerial capitalism. London: MacMillan.
- McGuire, J.W., Chiu, J.S.Y., & Elbing, A.O. 1962. Executive income, sales, and profits. American Economic Review, 52, 753-761.

- Meyer, M.W. & Zucker, L.G. 1989. Permanently failing organizations. Newbury Park, CA: Sage Publications, Inc.
- Milkovich, G.T., Gerhart, B. & Hannon, J. 1991. The effects of research and development intensity on managerial compensation in large organizations. The Journal of High Technology Management Research, 2, 133-150.
- Mintzberg, H. 1983. Power in and around organizations. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Murphy, K.J. 1985. Corporate performance and managerial remuneration. Journal of Accounting and Statistics, 7, 11-42.
- Murphy, K.J. 1986. Incentives, learning, and compensation: A theoretical and empirical investigation of managerial labor contracts. Rand Journal of Economics, 171, 59-76.
- O'Reilly, C.A., Main, B.G., & Crystal, G.S. 1988. CEO compensation as tournament and social comparison: A tale of two theories. Administrative Science Quarterly, 33, 257-274.
- Perrow, C. 1986. Complex Organizations: A Critical Essay. Palo Alto, CA: Scott, Foresman and Company.
- Pettigrew, A.M. 1972. Information control as a power resource. Sociology, 187-204.
- Pfeffer, J. 1981. Power in organizations. Cambridge: Ballinger Publishing Company.

- Podsakoff, P.M. & Schriesheim, C.A. 1985. Field studies of French and Raven's bases of power: Critique, reanalysis, and suggestions for future research. Psychological Bulletin, 973, 387-411.
- Porter, M.E. 1980. Competitive strategy: Techniques for analyzing industries and competitors. New York: Macmillan Publishing Company.
- Prasad, S.B. 1974. Top management compensation and corporate performance. Academy of Management Journal, 17 3, 554-558.
- Raven, B. H. & Kruglanski, A.W. 1970. Conflict and power. In P. Swingle (Eds.), The Structure of Conflict, New York: Academic Press.
- Salancik, G.R. & Pfeffer, J. 1983. Who gets power and how they hold on to it: A strategic-contingency model of power. In Allen, R.W. & Porter, L.W. (Eds.), Organizational Influence Processes. Palo Alto, CA: Scott, Foresman and Company.
- Schmidt, D.R. & Fowler, K.L. 1990. Post-acquisition financial performance and executive compensation. Strategic Management Journal, 11, 559-570.
- Simpson, R.L. 1985. Social control of occupations and work. American Review of Sociology, 11, 415-436.
- Snyder, N.H. & Glueck, W.F. 1982. Can environmental volatility be measured objectively? Academy of Management Journal, 25, 185-192.

- Stearns, T.M., Hoffman, A.N., & Heide, J.B. 1987. Performance of commercial television stations as an outcome of interorganizational linkages and environmental conditions. Academy of Management Journal, 30, 71-90.
- Steers, R. & Ungson, G.R. 1987. Strategic issues in executive compensation decisions. In D.B. Balkin & L.R. Gomez-Mejia (Eds.), New perspectives on compensation. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Thompson, J.D. 1967. Organizations in action. New York: McGraw-Hill.
- Tosi, H.L. & Gomez-Mejia, L.R. 1989. The decoupling of CEO pay and performance: An agency theory perspective. Administrative Science Quarterly, 34, 169-190.
- Tosi, H.L. & Gomez-Mejia, L.R. 1994. Measuring the effects of CEO compensation monitoring on firm performance: A behavioral approach. Unpublished technical report, University of Florida, Gainesville, Florida.
- Tosi, H.L., Gomez-Mejia, L.R., & Moody, D.L. 1991. The separation of ownership and control: Increasing the responsiveness of boards of directors to shareholders' interests? Journal of Law and Public Policy, 4, 39-58.
- Tosi, H.L., Katz, & Gomez-Mejia, L.R. 1995. Tenure and executive compensation. Unpublished technical report, Arizona State University, Tempe, AZ.
- Tosi, H.L., Warner, & Gomez-Mejia, L.R. 1995. Meta-Analysis of the Executive Compensation Literature. Unpublished technical report, Arizona State University, Tempe, AZ.

- Tushman, M.L. & Romanelli, E. 1983. Uncertainty, social location and influence in decision making: A sociometric analysis. Management Science, 29 1, 12-23.
- Tushman, M.L. & Scanlon, T.J. 1981. Characteristics and external orientations of boundary spanning individuals. Academy of Management Journal, 24, 83-98.
- Useem, M. 1979. The social organization of the American business elite and participation of corporate directors in the governance of American institutes. American Sociological Review, 44, 553-572.
- Useem, M. & Karabel, J. 1986. Pathways to top corporate management. American Sociological Review, 51, 184-200.
- Wade, J., O'Reilly, C.A., & Chandratat, I. 1990. Golden Parachutes: Ceos and the exercise of social influence. Administrative Science Quarterly, 35, 587-603.
- Walsh, J.P. & Seward, J.K. 1990. On the efficiency of internal and external corporate control mechanisms. Academy of Management Review, 153, 421-458.
- Wilhelm, P.G. 1993. Application of distributive justice theory to the CEO pay problem: Recommendations for reform. Journal of Business Ethics, 12, 469-482.

Williams, M.J. 1985, April 1. Why chief executives pay keeps rising. Fortune, 66-73.

Zald, M. 1969. The power and functions of board of directors: A theoretic synthesis. American Journal of Sociology, 75, 97-111.

APPENDIX A
ELITE UNIVERSITIES AND COLLEGES

Amherst College	Pamona College
Brown University	Princeton University
California Institute of Technology	Stanford University
Carleton College	Swarthmore College
Columbia University	U.S. Military Academy
Cornell University	U.S. Naval Academy
Dartmouth College	U. of California, Berkeley
Duke University	U. of California, Los Angeles
Grinnell College	U. of Chicago
Harvard University	U. of Michigan
Haverford College	U. of Pennsylvania
Johns Hopkins University	Wellesley College
Massachusetts Institute of Technology	Wesleyan University
New York University	Williams College
Northwestern University	Yale University
Oberlin College	

APPENDIX B

**REGRESSION COEFFICIENTS AND R^2 CHANGES:
POWER MEASUREMENT INDICATORS X TENURE**

Ownership Power Indicators x Tenure Effects on Pay Level

	1	2	3	4	5
CONTROL					
Firm size	.41***	.42***	.41***	.41***	.42**
Firm performance	.16*	.15*	.16*	.16*	.15*
R&D intensity	.14+	.12+	.14+	.13+	.12+
MAIN					
Executive shares	-.07	-.02	-.03	-.06	-.07
Family shares	-.01	-.09	-.02	-.08	.00
Founder/relative	.11	.13+	.11	.10	.14+
Tenure	-.10	-.08	-.11	-.09	-.09
INTERACTION					
Executive shares x tenure		-.04	-.05		
Family shares x tenure		.11		.09	
Founder/relative x tenure		-.11+			-.11+
R^2	.24***	.25***	.24***	.24***	.25***
ΔR^2		.02	.00	.00	.01+
+ p < .10					
* p < .05					
** p < .01					
*** p < .001					

Ownership Power Indicators x Tenure Effects on Pay Mix

	1	2	3	4	5
CONTROL					
Firm size	.15*	.16*	.15*	.15*	.16*
Firm performance	-.02	-.02	-.01	-.02	-.03
R&D intensity	.21**	.19*	.21**	.21**	.19*
MAIN					
Executive shares	.01	-.01	-.03	.03	.01
Family shares	-.07	-.14	-.06	-.16	-.07
Founder/relative	.12	.16+	.12	.11	.16*
Tenure	-.17*	-.14+	-.16*	-.16*	-.17*
INTERACTION					
Executive shares x tenure		.06	.05		
Family shares x tenure		.11		.09	
Founder/relative x tenure		-.14+			-.13+
R^2	.13**	.14**	.11**	.12**	.13**
ΔR^2		.02	.00	.01	.01+

+ p < .10
* p < .05
** p < .01
*** p < .001

Ownership Power Indicators x Tenure Effects on Performance Sensitivity

	1	2	3	4	5
CONTROL					
Firm size	-.01	-.02	-.01	-.01	-.02
Firm performance	-.15+	-.14+	-.15+	-.15+	-.14+
R&D intensity	.01	.02	.00	.01	.02
MAIN					
Executive shares	-.04	-.09	-.09	-.05	-.05
Family shares	.05	.09	.06	.07	.04
Founder/relative	-.09	-.12	-.09	-.09	-.13
Tenure	.02	.01	.03	.01	.01
INTERACTION					
Executive shares x tenure		.05	.06		
Family shares x tenure		-.05		-.03	
Founder/relative x tenure		.10			.11
R^2	.04	.05	.04	.04	.04
ΔR^2		.01	.00	.00	.01
+ p < .10					
* p < .05					
** p < .01					
*** p < .001					

Expert Power Indicators x Tenure Effects on Pay Level

	1	2	3	4	5
CONTROL					
Firm size	.44***	.44***	.44***	.44***	.44**
Firm performance	.16*	.16*	.16*	.16*	.16*
R&D intensity	.14*	.13+	.14*	.14*	.14*
MAIN					
No. of positions	-.05	-.08	-.06	-.06	-.05
Functional experience	.02	.07	.02	.06	.02
Critical experience	-.06	-.05	-.05	-.06	-.06
Tenure	-.07	-.07	-.06	-.08	-.07
INTERACTION					
No. of pos. x tenure		.06	.02		
Functional exp. x tenure		-.07		-.05	
Critical exp. x tenure		-.03			-.01
R^2	.23***	.23***	.23***	.23***	.23***
ΔR^2		.00	.00	.00	.00

+ p < .10
* p < .05
** p < .01
*** p < .001

Expert Power Indicators x Tenure Effects on Pay Mix

	1	2	3	4	5
CONTROL					
Firm size	.17*	.18*	.18*	.17*	.17*
Firm performance	-.02	-.02	-.02	-.02	-.02
R&D intensity	.21**	.22**	.22**	.21**	.20**
MAIN					
No. of positions	-.06	.00	-.01	-.06	-.06
Functional experience	.00	-.01	.01	.03	.01
Critical experience	-.03	-.05	-.04	-.03	-.03
Tenure	-.13+	-.17*	-.18*	-.14+	-.15+
INTERACTION					
No. of pos. x tenure		-.14	-.12		
Functional exp. x tenure		.03		-.04	
Critical exp. x tenure		.01			-.06
R^2	.10**	.11**	.11**	.10*	.11**
ΔR^2		.01	.01	.00	.00
+ p < .10					
* p < .05					
** p < .01					
*** p < .001					

Expert Power Indicators x Tenure Effects on Performance Sensitivity

	1	2	3	4	5
CONTROL					
Firm size	.00	.01	.00	.00	.00
Firm performance	-.16*	-.17*	-.16*	-.16*	-.16*
R&D intensity	.00	.02	.00	.00	.00
MAIN					
No. of positions	.05	.09	.06	.05	.04
Functional experience	-.18*	-.19	-.17*	-.16	-.18*
Critical experience	.00	-.02	.00	.00	.00
Tenure	.00	.00	-.01	.00	.02
INTERACTION					
No. of pos. x tenure		-.11	-.04		
Functional exp. x tenure		.01		-.02	
Critical exp. x tenure		.11			.05
R^2	.05	.06	.05	.05	.05
ΔR^2		.01	.00	.00	.00
+ $p < .10$					
* $p < .05$					
** $p < .01$					
*** $p < .001$					

Prestige Power Indicators x Tenure Effects on Pay Level

	1	2	3	4	5
CONTROL					
Firm size	.44***	.41***	.43***	.44***	.42***
Firm performance	.15*	.11	.15*	.13+	.14*
R&D intensity	.16*	.12+	.13+	.16*	.14*
MAIN					
Corporate boards	.13+	.11	.07	.16+	.13
Nonprofit boards	-.08	-.14+	-.08	-.06	-.07
Average board rating	-.09	.10	-.06	-.11	-.10
Tenure	-.10	-.14*	-.11	-.12+	-.09
INTERACTION					
Corporate bds. x tenure		.10	.11		
Nonprofit bds. x tenure		-.14+		-.08	
Avg. bd. rating x tenure		.10			.11
R^2	.24***	.27***	.25***	.24***	.25***
ΔR^2		.03+	.01	.00	.01
+ $p < .10$					
* $p < .05$					
** $p < .01$					
*** $p < .001$					

Prestige Power Indicators x Tenure Effects on Pay Mix

	1	2	3	4	5
CONTROL					
Firm size	.16*	.13+	.16*	.15*	.15*
Firm performance	-.02	-.06	-.02	-.05	-.03
R&D intensity	.22**	.21**	.22**	.23**	.21**
MAIN					
Corporate boards	.07	.10	.06	.11	.07
Nonprofit boards	-.02	.02	-.03	.00	-.02
Average board rating	-.07	-.11	-.06	-.10	-.07
Tenure	-.16*	-.21**	-.17*	-.20**	-.16*
INTERACTION					
Corporate bds. x tenure		.03	.02		
Nonprofit bds. x tenure		-.17*		-.13+	
Avg. bd. rating x tenure		.09			.05
R^2	.10**	.13**	.10**	.12**	.11**
ΔR^2		.02	.00	.01+	.00

+ p < .10
* p < .05
** p < .01
*** p < .001

Prestige Power Indicators x Tenure Effects on Performance Sensitivity

	1	2	3	4	5
CONTROL					
Firm size	.05	.03	.06	.04	.04
Firm performance	-.16*	-.19*	-.16*	-.18*	-.16*
R&D intensity	.02	.04	.05	.03	.02
MAIN					
Corporate boards	.22*	.32**	.28**	.25**	.21*
Nonprofit boards	-.21**	-.18**	-.21**	-.19**	-.21**
Average board rating	-.17+	-.25*	-.20*	-.20*	.17+
Tenure	.00	-.01	.01	-.03	.00
INTERACTION					
Corporate bds. x tenure		-.13	-.10		
Nonprofit bds. x tenure		-.12		-.12	
Avg. bd. rating x tenure		.12			.03
R^2	.09*	.12*	.10*	.10*	.09*
ΔR^2		.02	.01	.01	.00 [^]

+ p < .10
* p < .05
** p < .01
*** p < .001

BIOGRAPHICAL SKETCH

Arden Grabke Rundell was born in Chico, California, on December 16, 1961. She received her elementary education in Edmonds, Washington and completed her secondary education in 1980 at Mariner High School, Mukilteo, Washington. She attended Western Washington University in Bellingham where she received her Bachelor of Arts degree in Psychology in 1985 and her Master of Business Administration degree in 1986. She has worked as a Human Resource professional for the City of Bellingham; Spacelabs, Inc.; Seattle's Children's Hospital and Medical Center; and the Army National Guard. In August 1990, she enrolled in the Management doctoral program at Arizona State University where she served as both a graduate research assistant and teaching assistant. While attending Arizona State University, she met her husband, Robert Rundell, then a doctoral student in Electrical Engineering, and was married August 7, 1994. She has published in The Handbook of Human Resource Management and The Academy of Management Best Paper Proceedings.