

# Personality Differences and Executive Compensation

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## THE EXECUTIVE EARNINGS DEBATE

The debate over the relative importance of sales versus profits as determinants of executive earnings has evolved over three decades. The controversy paralleled the debate about whether firms maximize firm size, as measured by sales, given a respectable profit margin (the managerial perspective) or whether firms maximize profits (the neoclassical perspective). In an early managerialist study, Roberts (1956) argued that executive compensation is a function of both company size and the separation of management from ownership. Later, Patton (1961) argued that executive pay varies with company size across industries. McGuire, Chui, and Elbing (1962), using market and book value of returns as measures of profitability, claimed that sales are more highly correlated with executive compensation than are profits. Baumol observed that “. . . executive salaries appear to be more closely correlated with the scale of operations than with its [the firm’s] profitability . . .” (1967, p. 46) In a more recent study, Ciscel (1974) examined groups of executives within companies and confirmed these earlier findings.

Though several attempts were made at rebutting the managerialist findings, the first convincing evidence was not presented until Lewellen and Huntsman’s (1970) work. After demonstrating that a simple measure of executive earnings (salary plus bonus) serves as an excellent proxy for total compensation, they concluded that profits most strongly affect executive rewards. The studies that followed attempted to control for other determinants of executive earnings. Studies by Auerbach and Siegfried (1974) and Nathan (1980) added firm- and industry-specific variables. Nathan claimed that market concentration and lack of government regulation are positively correlated with executive earnings. Agarwal (1981) found that organizational attributes, particularly levels of management, dominate but do not entirely replace individual characteristics as determinants of executive earnings.

Smyth, Boyes and Peseau (1975), correcting the statistical problems found in Lewellen and Huntsman’s work, were the first to conclude that both sales and profits are important determinants of executive earnings. Ciscel and Carroll (1980) claimed that because profits are computed as the value of sales minus economic costs, there is a simultaneity bias in standard estimates.<sup>1</sup> They “correct for this bias and conclude that . . . the managerialists and neoclassical models for the firm are complementary, rather than substitute, explanations for the patterns of executive compensation” (p. 7). While this conclusion basically ended the debate over the relative importance of profits vs. sales as determinants of executive compensation, the search for a more complete understanding of the forces affecting executive compensation continued.

Carroll and Ciscel (1982) extended their work to include the effects of government regulation of corporate activities on executive salaries. When they viewed the degree of government regulation as both a measure of executive discretion and of the firm’s financial risk, they found that regulation reduces executive salaries. Carroll and Ciscel’s work demonstrates the need to consider the impact of forces beyond the discretion of the chief executive officer on his/her compensation. In this vein, Bartlett, Grant, and Miller (1989) argued that the fortunes of a firm and thus the fortunes of its chief executive officer are subject to aggregate swings in economic activity. Since some firms are more susceptible to business cycles

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than others, executives of cycle-sensitive firms receive higher earnings to compensate them for working in relatively less stable economic environments. Using a model of compensating differentials, Bartlett *et. al.* find that systematic or cyclical risk, as measured by a firm's Beta coefficient, is a very important determinant of executive compensation. Executives who head firms in areas of the economy with greater market volatility earn more *ceteris paribus*.

In summary, the theoretical and empirical literature on executive earnings has grappled with both the profit maximization and sales maximization arguments as primary determinants of executive earnings. Models of executive earnings have been extended to include additional individual, firm, and industry variables. Models have been re-specified and re-estimated to correct previous statistical problems. The debate over the importance of profitability versus sales has diminished with the finding that profitability and sales are complementary determinants of executive earnings.

## MANAGERS VS LEADERS

Recent discussions concerning executives in disciplines other than economics suggest that a fundamental, and heretofore, unrecognized distinction may exist which would necessitate a reexamination of this issue. Each of the studies reviewed above treat all executives as if they were similarly motivated. However, an article in the *Wall Street Journal* (1987) reported on two chief executive officers who are motivated differently, but effectively compete in the same industry. The news headline reads:

### *Rival Goliaths:*

Two Giant Oil Firms Battle for Supremacy With Differing Tactics  
Exxon Emphasizes Earnings But Shell Seeks Growth; Both See Industry Upturn

A Wildcatter vs. Cambridge (*WSJ*, July 8, 1987 p. 1)

The article reported that Lawrence G. Rawl, the chief executive officer of Exxon, pushes to be number one in profits, and admits that "Revenues don't count with [him]. What counts is net revenues after taxes." In comparison, Peter F. Holmes, the chief executive officer of Royal Dutch/Shell concedes that being number one in profitability "isn't [his] prime objective." Shell is pushing to be number one in sales.

This *Wall Street Journal* article also implies that each chief executive officer has a very different personality type. The executives in this article could easily represent the stereotypical personality types discussed by Abraham Zaleznik, a social psychologist at the Harvard Business School. Beginning with his seminal article (1977), Zaleznik has contended that chief executives display one of two fundamentally different personality types: "Leaders," and "Managers." In this and subsequent work (1977, 1985 [with Ketz de Vries], 1989a, 1989b, 1989c) he explores the possible psychological development of managers and leaders, their different orientations toward corporate goals, their own work, interpersonal relations, and corporate conduct and performance.

According to Zaleznik, managers' goals are passive and deeply imbedded in the structure of the organization. The stereotypical manager is concerned with process over substance. Managers relate to people according to the roles they play in the process. They do not typically make independent decisions. Managers are measured by how well they get people to go along with the company's expectations, not by how well the company performs. They smooth conflicts and grease the wheels of human interrelations (1989a-c).

In contrast, according to Zaleznik, the stereotypical leader faces situations actively rather than passively. Not bound by process, leaders have substance driven goals. Leaders shape ideas rather than respond to them. What Zaleznik terms the "leadership compact" demands commitment to the performance of the organization; it stresses intuition, risk taking and individual creativity [even at the expense of

structure] (1989b). Leaders are interested in performance and productivity, the substance of real work (1989a).

Zaleznik writes that managers work with people; "while no hard data exist, observation tells me that too many managers put interpersonal matters, power relations, and pouring oil over troubled waters ahead of real work." (1989a p. 61) Leaders create structures which appear "turbulent, intense, and at times even disorganized" (1977 p. 74), "One of the jobs of business leaders is to keep politics out and substance in." (1989b p. 37). Managers are team players, while leaders find the team limiting.

For Zaleznik, these manager-leader differences stem from differences in sense of self. Managers are characterized as having a once-born personality—a sense of self that comes from belonging and being in harmony with the people and structures around them. In contrast, leaders tend to have twice-born personalities. Leaders tend to feel separate from their surroundings, including the people in it, "[Leaders] may work in organizations, but they never belong to them. Their sense of who they are does not depend upon memberships, work roles, or other social indicators of identity" (1977 p. 74-75).

Zaleznik observes a steady increase in the numbers of organizations run by managers rather than leaders. He finds this disheartening. He sees firms' goals drifting away from substance and drifting toward process. "The crucial difference between managers and leaders is in their respective commitments. A manager is concerned with how decisions get made and how communication flows; a leader is concerned with what decisions get made and what he or she communicates. In short, for the manager it is style over substance and process over reality." (1989b p. 19). According to Zaleznik, consistently placing process over productivity will eventually doom the organization. "Organizations run by managers function well, but herein lies their main problem. Because the troubles generated in managerially run companies are incipient . . . the maladies act like time bombs that will explode long after the perpetrators are gone from the scene." (1989c p. 64).

The implication for a study of executive compensation is straight forward. Zaleznik's work provides a foundation for the following hypothesis. There are, in fact, two executive types: managers and leaders. Each has different goals, and different, complementary (Ciscel and Carroll, 1980) compensation structures associated with these goals. "In my view this [managerial] concept of executive work [has] led to an unhealthy preoccupation with process at the expense of productivity." (1989a p. 59). It is the job of the leader to place product over process. The leader's compensation should be more sensitive to changes in productivity. The manager's job is to place process over product. The manager's compensation should be more sensitive to those factors associated with a smooth running organization, for example sales growth, interpersonal skills, etc.

When estimating executive compensation structures econometrically, it is therefore incorrect to ignore an executive's personality type. Empirical work based on the assumption that all executives are similarly motivated would, almost certainly, commit specification errors and violate the classical assumption of homoscedasticity. These resultant problems would adversely affect the accuracy of the econometric results and cast doubt on conclusions drawn from them.

The problem for this executive compensation study is one of distinguishing managers from leaders in our sample. This study asserts that the key to identifying the two groups of executives is in their personality types as described above. Managers are more likely to be where people are. They are more likely to belong to organizations which fulfill their need to be, work and play with other people. Managers will be people with many group affiliations. Leaders, however, are loners and are less likely to have many group affiliations. The more affiliations an executive has the more likely that he/she will be a manager. One way to measure an executive's tendency to affiliate with people is to observe whether he/she belongs to clubs. If the tendency to join clubs is a good predictor of an executive's personality traits, then the managers in our sample can be differentiated from the leaders in our sample on this basis. We would expect, if our hypothesis is correct, that the coefficients of executive compensation models estimated for these two groups separately would be statistically different from each other and that the estimation of separate models of executive compensation for each personality type would reduce the likelihood of heteroscedasticity.

### THE EMPIRICAL MODEL

We examine the compensation of 215 top corporate executives, [as measured by total salary plus bonus in 1980] in major U.S. corporations. The sample is comprised of the top two executives per company listed in *BusinessWeek*, May 11, 1981. Salary plus bonus data were obtained from the same issue. Market condition variables appeared in *BusinessWeek*, March 16, 1981. Finally, *Who's Who in America, 1980-81* supplied all of the individual executive characteristics and affiliations. We estimated both linear and semilog versions of our model and found that there was no statistical evidence favoring one form over the other. Since human capital earnings models typically have a semilog empirical specification, we have chosen to report the estimates from our semilog model. The model used was:

$$y = \beta_0 + \beta_1 M + \beta_2 H + \beta_3 C + U. \text{ Where:}$$

$y$  = natural logarithm of salary plus bonus for each executive (in thousands of dollars)

(1)  $M$  = a vector of variables reflecting market conditions: profitability, sales, and risk<sup>2</sup> for each firm.

$H$  = a vector of variables reflecting individual executive characteristics.

$C$  = a vector of variables measuring the extent of an executive's club affiliations.

All persons in the sample are male with a mean annual salary plus bonus of \$493,540. Table One contains the means for each of the variables in Equation [1]. Market conditions are measured by a firm's sales and profits. These variables appear in current year and lagged forms. For the reasons discussed

TABLE 1  
Means of the Variables Used, 1980

Variable	Pooled	Leaders	Managers
Salary Plus Bonus (000s)	493.54	484.27	501.03
Market Conditions:			
% Change in Profits	7.48	6.79	8.04
Earnings per Share	4.69	4.53	4.80
Sales (000s)	6483.70	6088.60	6802.50
Profits Last Year (000s)	311.45	322.08	302.87
Sales Last Year (000s)	5351.9	5067.70	5581.20
Risk	1.03	1.05	1.02
Individual Characteristics:			
Age (years)	59.56	59.23	59.82
Tenure (years)	7.81	7.91	7.73
College (years)	3.67	3.52	3.80
MBA (%)	19.01	14.58	21.85
Married (%)	92.22	84.37	99.16
Children (number)	2.86	2.42	3.22
Club Affiliation			
Number Social			2.71
Number Country			2.13
Links (%)			27.73
Sky (%)			12.61
Bohemia (%)			6.72
Pinnacle			4.20
University			10.08
Number of Observations	215	96	119

above, we expect managers' salaries to be less responsive to changes in profits than are leaders' salaries. It is reasonable to assume that an executive's base salary is determined at the beginning of each year and therefore is at least partially dependent on the previous year's performance. Although we did not choose to measure current profits as a residual in the manner of Ciscel and Carroll, we did choose to represent it using two related variables—percentage change in profits and earnings per share. We made these substitutions for two reasons. First, a relatively large increase in profits or increased earnings per share may result in an increase in the bonus portion of an executive's compensation. Second, the measures of profitability chosen have the advantage of being less correlated with sales.

Recently, researchers have recognized the importance of individual characteristics, either as measures of human capital or as screening devices, in the determination of executive compensation. We incorporate a number of the human capital/screening measures. Hogan and McPheters (1980) use variables reflecting age, years as a chief executive officer, years with the firm, job mobility in the lower ranks, and administrative and educational background. They find that age, tenure and mobility are statistically significant determinants of executive salaries. We therefore include in our regression Age, Age squared, Tenure, Years in College and a variable measuring whether the executive has an MBA degree.

Family status may also signal an executive's motivational characteristics. Arguments for inclusion of such variables are developed elsewhere.<sup>3</sup> Though we do not know the employment status of the spouse of an executive in the sample, we did include variables reflecting an executive's marital status and the number of children in his household.

Finally, we expect that executives who tend to affiliate with clubs will behave differently from executives who are not club members. We argue that executives who belong to clubs tend to be people-oriented and are more likely to be managerial-type executives than those who do not belong to clubs. Consequently, we argue that executives who belong to clubs are more likely to be the managers: attuned to process, to human interaction, to short-run problems and to more risk aversion than executives who do not belong to clubs; that is, they are more likely to have Zaleznik's managerial characteristics. We argue that executives who are not affiliated with a club are more likely to fall into a second group of executives—the leaders.<sup>4</sup> We reasoned that simply adding an independent dummy variable to a basic executive compensation model to signify club affiliation would not give us any definitive results since there is little *a priori* reason to anticipate that one group would earn more than the other group, *ceteris paribus*. It is also probable that the impact of club membership upon compensation differs among the various clubs and may be positive for some and negative for others. A more detailed approach is to group clubs according to their purpose and to measure the number of clubs to which executive belongs. Since the data were available, we were able to determine the number of social clubs and the number of country clubs to which each executive belonged. We chose to enter these as separate variables.

Tests of our hypothesis that determinants of executive compensation differ according to personality type (manager vs. leader) require estimating the compensation model for various subsamples. If there are significant differences in the determinants of compensation between managers and leaders, then combining both groups in one specification results in an estimated model that correctly specifies neither group; the empirical results can only reflect averages across groups. We will conduct Chow Tests<sup>5</sup> for differences in specification according to executive type. In addition, unless the model is specified in such a manner that it explicitly takes into account the relevant group differences, heteroscedasticity is a probable outcome of combining the two diverse groups. We choose standard econometric methods to test for heteroscedasticity. The empirical evidence will support our hypothesis if the Chow Test leads us to reject a hypothesis of identical model specification for managers and leaders, if the evidence of heteroscedasticity is greater when dealing with the combined sample than when dealing with separate samples, if we find that the interaction of club affiliation with various market conditions and individual characteristics is significant, and if the profit coefficients differ for managers and leaders.



of executives. The test results indicated that once the model appropriately accounts for manager-leader differences (based upon club membership), its specification is not statistically different from separately estimated manager and leader models. (The F-statistic for the Chow Test was not significant at the 10% level).

The results presented in Table Three indicate a number of differences between managers and leaders. It appears that Tenure, Earnings per Share, and Risk [the impact of market variability on the firm] are more important determinants of compensation for managers than for leaders. On the other hand, last year's profits are statistically more significant determinants of compensation for leaders than for managers. The impact of last year's sales on compensation is also stronger for leaders than for managers, suggesting that leaders may be compensated more for successful change in corporate performance than are managers. There is some slight empirical support for Zaleznik's notion that profits ("substance") are more important for leaders than for managers. There is also some evidence that time spent in obtaining an undergraduate education is a positive factor for managers but not for leaders. Finally it seems clear that the effects of club membership differ substantially among various prestigious clubs.

The results presented in Table Three were checked for various violations of the classical econometric assumptions. Mild levels of multicollinearity were found. The absence of severe multicollinearity may result from the larger than average sample size and/or the way in which variables were defined. Because we were very interested in determining what effect, if any, the use of an expanded executive compensation model which explicitly takes into account executive personality types might have on the detection of heteroscedasticity, eight different tests were employed. The test procedures used were the Goldfeld-Quant Test and the Glejser Test. Both of these procedures were tried with Sales, Earnings per Share, Last Year's Salary, and Last Year's Profits as "suspect" variables. Heteroscedasticity was not detected at the 10% level by any of these tests. This supports our hypothesis that the heteroscedasticity problem commonly inherent in executive compensation studies stems from failure to distinguish between the different compensation structures of managers and leaders in the sample.

In sum, our findings give new life to the debate over the relative importance of profitability versus sales as determinants of executive compensation. The structure of managers' and leaders' compensation appear to be different. The importance of profitability versus sales appears to be different for the two different types of executives. Our findings provide empirical evidence which supports Zaleznik's claim that managers are driven by process and leaders are driven by substance.

## NOTES

1. When one explanatory variable is a linear function of the other explanatory variables, the consequence is severe multicollinearity and not simultaneous equation bias. As Dunlevy (1985) points out, the method used by Ciscel and Carroll tends to slant the interpretation of their results in favor of the managerialist position. Thus their approach is an inappropriate response to multicollinearity.
2. The risk variable is the firm's "Beta" coefficient as constructed by *Value Line* and discussed by Bartlett, Grant, and Miller (1989).
3. See Ransom (1987) or Kokoski (1987) for recent household welfare models and household labor supply models which depend on family status of the householders.
4. Dividing the sample such that all executives who belong to at least one club are grouped together may seem a bit arbitrary. Fortunately, no executive in our sample belonged to only one club and only three executives belonged to just two clubs. Thus, in our sample, the division between those who joined clubs and those who did not was quite distinct.
5. The econometric tests used in this paper may be found in Mirer (1988) and Johnson, Johnson, and Buse (1987).
6. In the light of this finding, weighted least squares was used to estimate the simple model as applied to the combined data set. The Chow Test was repeated and its results again indicated that the two subsamples were statistically significantly different from one another at the 1% level and thus should not be combined for the purposes of estimating the simple model.

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