

## **Internal vs. External Successions and Their Effect on Firm Performance**

**Beni Lauterbach,<sup>1,3</sup> Joseph Vu,<sup>2</sup> and Jacob Weisberg<sup>1</sup>**

---

An examination of 165 top management successions in U.S. firms during 1989–91 reveals that external successions are more likely in small firms, in firms with poor economic performance, and in firms which offer the successor several top positions (for example, Chairman and CEO). This last finding illustrates that successor's interests and demands (such as organizational power) are also important in determining the final match between manager and firm. We also find that, on average, the postsuccession performance of external successors is superior to that of internal successors. This could indicate that the Board of Directors faces an agency problem, leading it to appoint too often from inside.

---

**KEY WORDS:** CEO successions; firm performance; agency problems.

### **INTRODUCTION**

The succession of the leader is a central event in the life of businesses and organizations. The general view is that the new manager would have a significant impact on firm performance (Hambrick & Mason, 1984). Hence, the successor choice decision appears crucial.

A frequently debated issue is the preferable source of top management successions (external or internal). Proponents of internal successions highlight the importance of continuity. They stress the insiders' greater knowledge of the firm, and their established social networks (Chung, Lubatkin, Rogers, & Owers, 1987). Internal candidates provide smooth transition and stability because they are well acquainted and have participated in developing the existing corporate strategy (Carlson, 1961). Internal successions

<sup>1</sup>Bar-Ilan University, School of Business Administration, Ramat Gan 52900, Israel.

<sup>2</sup>College of Commerce, DePaul University.

<sup>3</sup>Requests for reprints should be addressed to Beni Lauterbach, School of Business Administration, Bar-Ilan University, Ramat Gan 52900, Israel. (e-mail: lauteb@popeye.cc.biu.ac.il or beni@tx.technion.ac.il)

also promote loyalty. Employees feel more committed when upward mobility to the top rank is afforded.

External successions are generally prescribed as a remedy for firm difficulties (Helmich & Brown, 1972). When drastic changes are required, an external manager appears more promising because she or he are not binded by old policies and implicit contracts of the firm. An external succession can enrich the company with what it needs most—new perspectives, fresh ideas, and decisive actions.

Despite the strong intuitive appeal of the above arguments, their empirical support is weak. Kesner and Sebor (1994) review the studies on succession rate and successor's choice (see their Tables 2 and 3). There is evidence that poor performance increases the frequency of successions, but there is no conclusive evidence that poor performance triggers external successions. Only Datta and Guthrie (1994) find that firms with lower profitability prefer outside successions.

The present study examines the actual succession choices of 165 U.S. companies, in an attempt to answer the following questions: (a) What are the succession practices of U.S. firms, i.e., what are some of the factors that influence a firm to select its new top manager from inside or outside? (b) Did these succession practices prove themselves efficient? The first question seeks to characterize the existing situation with respect to the choice between an external and internal successor, hoping that firms' decisions are "largely rational." The second question motivates a direct measurement of the postsuccession success of firms. If succession practices are efficient, firm value should increase following successions, for external and internal successions alike.

## **THEORIES AND PREVIOUS EVIDENCE ON TOP MANAGEMENT APPOINTMENTS**

The decision on the source from which the new CEO would be appointed is complex and contingent upon numerous economic and organizational factors. Existing literature typically theorizes about the bivariate relations between specific "key" factors and the source of appointment. We will follow this common procedure, and first discuss the bivariate relations between several factors and the source of succession.

### **Firm's Past Performance and the Source of Successor**

The first and most frequently mentioned theory focuses on the relation between the company's past performance and the source of appointment. Kosnik (1987) emphasizes that an external succession is the most effective cure

for internal inefficiency because a new manager brought from outside is more likely to conceive and implement fresh initiatives. In the same spirit, Hambrick and Mason (1984) argue that when an organization performs poorly and needs a "change agent," an external succession becomes more likely.

Empirical evidence is however mixed. Datta and Guthrie (1994) find that lower profitability firms are more likely to recruit top management from outside. In contrast, studies such as Friedman and Singh (1989) do not find any significant relation between past performance and the successor's source. A third variation is presented in Dalton and Kesner (1985) who find a nonlinear relation: firms with poor or excellent past performance tend to appoint from inside, while firms with medium-grade past performance use a relatively high proportion of external successions. Finally, Boeker and Goodstein (1993) claim that performance influences successions, but board of directors composition (the percent of insiders on the board), firm ownership (percent ownership by insiders), and ownership concentration (number of insiders) moderate the relation.

It is reasonable that owners of a poor performing firm prefer an appointment from outside because such an appointment presents a better chance of jolting the firm and refreshing its thought. Thus, despite the inconclusiveness of existing evidence we maintain the following original hypothesis:

*Hypothesis 1.* Firms with poor past performance are more likely to appoint their new top manager from external sources.

### **Firm Size and the Source of Succession**

A second theoretical proposition concerns the relation between firm size and the source of succession (Dalton & Kesner, 1983). The argument is that larger companies have a larger reservoir and constantly develop and train good management prospects within the firm. Hence, larger firms are less likely to recruit from the outside. In contrast, smaller firms may not have a suitable internal candidate and may be forced to recruit from the outside.

Empirical evidence on the effect of firm size on top management appointments is mixed. Helmich and Brown (1972) report that larger firms use more external recruiting than smaller firms, while Dalton and Kesner (1983) claim the opposite. Schwartz and Menon (1985) find no relation between successor origin and firm size.

It is plausible that larger firms have a deeper reservoir of talented intermediate-level managers who are well-trained and prepared to succeed incumbent management. Hence, despite the mixed evidence of previous research, we predict the following:

*Hypothesis 2.* Large firms are more likely to appoint from inside.

### **Delegated Power and the Source of Succession**

We present two hypotheses on the relation between successor's choice and the amount of power offered to the new manager. Pfeffer (1992) argues that the most difficult task of a top manager is not reaching correct decisions but implementing them, and that the efficient implementation of decisions requires hierarchical authority and exercising power. Thus, adequate power is a prerequisite for top management success.

We propose that prospective managers worry about their power and ability to affect the organization. Hence, particularly candidates from outside the organization, who are typically asked to conceive and enforce drastic changes, need the power to accomplish the goal, and are reluctant to join companies that do not offer them "sufficient" discretion. This illustrates the supply side of the top management labor market. It is not enough that the company demands an external succession. Competent external candidates must be convinced to step in.

Although power is a complex construct (Pfeffer, 1981), managers' power is generally defined as the capability to exert their will. According to Finkelstein (1992), power in the organization can stem from ownership, special expertise, or prestige, but most commonly it is associated with the hierarchical structure.

Hambrick and Finkelstein (1987) and Harrison, Torres, and Kukalis (1988) advocate the direct measure of structural power, namely, the number of top positions delegated to the new manager. More top positions indicate more discretion and fewer constraints on implementing the manager's programs. It appears to us that external managers, as change agents, depend more on discretion. Thus, the following is predicted:

*Hypothesis 3.* The more top positions the firm is willing to offer the new manager, the more likely it is that succession will be external.<sup>4</sup>

Another dimension of power is the disposition of the former top manager. Former CEOs are often retained on the Board of Directors, for example as Chairman of the Executive Committee.<sup>5</sup> This retention may seek to utilize the CEOs valuable knowledge on the company and business, or it may reflect a significant share holdings by the CEO and family.

<sup>4</sup>In this hypothesis, the direction of causality is indeterminate. Sometimes, several vacant positions at the top compel the firm to recruit from outside, while on other occasions there is a reverse causality, i.e., the decision of the firm to go external forces it to offer candidates multiple top positions.

<sup>5</sup>Another typical role for former CEOs is outside consultant to the firm.

It seems reasonable to assume that firms that retain the former manager in an official position related to the firm, signal their preferences for some continuity. Hence, when the former manager stays close by, the range of discretion afforded to the new manager is somewhat moderated (Friedman & Singh, 1989, p. 727), which deters some prospective external successors. Accordingly, our hypothesis is:

*Hypothesis 4.* When a predecessor stays with the firm, the likelihood of external successions decreases.

### Successor's Origin and Postsuccession Performance

Kesner and Seborá (1994) argue that CEO succession is a unique case. "The job is idiosyncratic, nonroutine, and unstructured . . . Thus, picking a new CEO is 'tricky'—there is nothing typical about the typical CEO" (Kesner & Seborá, 1994, p. 329). Moreover, "Unlike turnover at lower levels, CEO succession decisions frequently rest in the hands of individuals who may be relatively unfamiliar with the organization and its internal processes" (Kesner & Seborá, 1994, p. 329).

The choice of a new CEO may be an even more complex process. When making a decision board of directors members often face two questions. First, which candidate is best for achieving firm objectives? Second, which candidate fits best the board member's personal interests? This second question may be of secondary importance or even subconscious. Nevertheless, it affects decisions, and may divert the firm from its optimal choice.

The literature has mentioned this "agency problem" of Board of Directors. For example, Boeker and Goodstein (1993) show that the prospects of external successions are negatively correlated with insiders' influence (board dominance and ownership). Internal candidates also seem to have closer relations with the board of directors members. Thus, it appears that sometimes an internal candidate is selected to office despite the fact that an external succession might be optimal. In contrast, it is likely that an external candidate was appointed only after a comprehensive search during which the candidate proved herself or himself superior to other external and internal candidates for the post.

The above analysis suggests that on average firms that recruited from outside got a more skillful CEO than firms that appointed from inside. Thus, the following is predicted:

*Hypothesis 5.* On average, external successions would lead to better postsuccession performances than internal successions.

Hypothesis 5 is based on agency theory. The agency approach, which basically examines situations where one party (the principal) delegates work

to another (the agent), has gained momentum over the recent decade and proved itself useful in many cases (Eisenhardt, 1989).

## METHODS

### Sample

The sample is based on news reports of top management appointments in U.S. firms. All daily issues of the *Wall Street Journal* in the years 1989–1991 were scanned, with special emphasis on the *Who's News* section, and all published top-management appointments were recorded. Reinganum (1985) uses a similar sample selection procedure.

In order to refine and optimize the sample, the following groups were excluded: (1) lower-rank management changes such as an appointment in a division or an appointment to a position other than Chief Executive Officer (CEO), Chairman, or President; (2) minor management changes such as an appointment of a CEO to an additional top position;<sup>6</sup> (3) managerial changes during periods of merger or restructuring activity in the firm;<sup>7</sup> (4) appointments announced as interim; and (5) appointments in firms that did not trade on the New York Stock Exchange (NYSE) or the American Stock Exchange (AMEX) for at least 4 years prior to the succession.<sup>8</sup> The final sample consists of 165 appointment events.

A potential bias in the sample stems from its source—the *Wall Street Journal* (WSJ). It is possible that the WSJ does not report all management changes. Some management changes which are “routine” may not be considered “news” and may not get published. It is likely that the omitted announcements include predominantly internal successions which explains the relatively high frequency of external successions in our sample (39% vs. 25% in Vancil, 1987).

We claim that the possible sampling bias has also a positive aspect. It limits the sample to important management changes only. In such cases,

<sup>6</sup>In many cases, the addition of a title does not represent a significant change in the firm. Given our large sample, and the difficulty of past research in extracting conclusive results, we have decided to be conservative and focus on major management changes only.

<sup>7</sup>The period before the conclusion of a merger is characterized by steep stock price increases in anticipation of the post-merger improvements. This abnormal price advance could distort our presuccession performance measure (that is based on stock prices) because many of these firms would appear to us as excellent past performers, while in fact they are poor performers impatiently waiting for an imminent takeover. To avoid this potential bias, we excluded management changes during outside control contests or restructuring.

<sup>8</sup>In this study we employ common stock return data, and the focus on companies traded on the NYSE and AMEX for a sufficient period before the succession is meant to increase the accuracy of the data and the reliability of the results.

perhaps, the key factors underscoring the successor's choice would become more transparent.

## Measures

For each succession event, we either collected or calculated data on the following variables: (1) the source from which the successor was appointed (internal or external);<sup>9</sup> (2) the former manager's disposition (left or stayed in the firm);<sup>10</sup> (3) the number of positions awarded to the new manager (single or multiple);<sup>11</sup> (4) the presuccession performance of the firm; (5) the postsuccession performance of the firm; and (6) the size of the company (relative to other firms traded on the NYSE and AMEX). Data on the first three variables were retrieved from the Wall Street Journal articles describing each appointment, while the remaining variables were calculated using the Center for Research in Security Prices (CRSP) tapes, available from the University of Chicago.

Two of the three calculated variables utilize CRSP stock return data. In the spirit of Lubatkin, Chung, Rogers, and Owers (1989), we estimate presuccession performance as the "excess return" of the firm's stock in the 2 years preceding the appointment, and postsuccession performance as the excess return in the 2 years after the appointment. These measures rely on the notion that security markets are efficient in the sense that they follow the firm's value closely and quickly. Thus, any pre-appointment deterioration of the firm must be accompanied by lower than normal stock returns (i.e., negative excess returns) during that period. The excess return measure was preferred to accounting earnings because accounting numbers are frequently marred with problems (Davidson III & Worrell, 1988).

Details on the technical calculation of excess returns are provided in the Appendix. The procedure employed has previously been used in numerous studies (Reinganum, 1985; Beatty & Zajac, 1987; Friedman & Singh, 1989).

The third calculated variable, relative size of the company, is constructed in two steps using the CRSP data. First, the total market value of the company's common stock is computed at the end of the year preceding the appointment. Then, this stock capitalization figure is ranked relative to the

<sup>9</sup>Successors who were part of the firm's management team or served on the board of directors prior to the appointment, are classified as internal successors.

<sup>10</sup>Former managers are classified as having "stayed in the firm" whenever they retained a top position in the firm or on the board of directors.

<sup>11</sup>The *Wall Street Journal* reports the exact positions awarded to the new manager, which helps us construct the number of positions variable. It is noteworthy that our number of positions variable indicates the initial power of the new manager. Some new managers act like "brooms" and increase their power over time, but we referred only to their initial power.

stock capitalization of all NYSE and AMEX companies at that time, in order to determine the stock capitalization decile (relative size) of the firm.

## RESULTS

### Descriptive Statistics

Table I outlines the main characteristics of the sample. Most of the appointments (61%) were internal; in most of the cases (60%), the former manager left the firm; and about half of the new managers (51%) received more than one top position (for example, were appointed as both CEO and President). In addition, the companies in the sample tend to be larger than average; and the average excess return of the companies in the 2 years preceding the succession is negative (-7% with a standard error of 6%) and reflects lower than average performance.

The Pearson correlation coefficients in Table I support three of our hypotheses concerning the source of appointment. First, the poorer the firm's performance, the more likely are external successions (Hypothesis 1). Second, the larger the company size, the higher is the proportion of internal successions (Hypothesis 2). Third, the more top positions offered to the new manager, the higher is the proportion of external successions (Hypothesis 3).

The other significant relations documented in Table I indicate that: (1) External successions are associated with better postsuccession performance than internal successions (Hypothesis 5), and (2) large firms performed relatively better before the succession.

One key correlation in Table I is however statistically insignificant. Predecessor's disposition (which is the focus of Hypothesis 4) does not appear to impact the source of successor.

### Firm Presuccession Performance and the Source of Appointment

The correlation analysis in Table I revealed that past performance affects successor's choice. Dalton and Kesner (1985) identify nonlinearities in the past performance-successor's choice relation. They find that firms with medium presuccession performance appoint more from outside than firms with high or low performance. To examine this possible nonlinearity, we sort the sample firms according to presuccession excess returns, and divide them into performance quintiles. Then, we calculate and compare the proportion of external successions in each performance quintile.

The empirical results, summarized in Table II, do not manifest a Dalton and Kesner-like phenomenon. Instead, we obtain that poor performers (firms in the two lowest performance quintiles) appoint mostly (about 60%)



Table I. Means, Standard Deviations and Pearson Correlation Coefficients

Variables	Levels	Means <sup>a</sup>	SD	Pearson correlations <sup>b</sup>						
				1	2	3	4	5	6	
1. Source of appointment	0-external 1-internal continuous	0.61 (165) -0.07	0.49	1.00						
2. 2 years presuccession performance (excess return)	continuous	(165) -0.19	0.78	.329 (.000)	1.00					
3. 2 years postsuccession performance (excess return)	continuous	(165) 6.22	0.75	-1.158 (.043)	.020 (.795)	1.00				
4. Size of the company	ten levels, 1-smallest 10-largest	(165)	2.93	.302 (.000)	.342 (.000)	.031 (.690)	1.00			
5. Disposition of predecessor	0-stayed with the firm 1-left	0.60 (163)	0.49	-.065 (.412)	-.024 (.761)	-.073 (.352)	-.009 (.912)	1.00		
6. Number of positions offered to new manager	0-one 1-multiple	0.51 (165)	0.50	-.259 (.001)	.083 (.288)	-.114 (.145)	-.105 (.179)	.053 (.505)	1.00	

<sup>a</sup>The number of observations is shown in parentheses.

<sup>b</sup>Significance levels (*p*-values) of the correlations appear in parentheses.

**Table II.** Contingency Analysis of the Effect of Past Performance on Successor's Origin<sup>a</sup>

	Number and percent of external successions	Number and percent of internal successions
Lowest performance quintile (past excess returns < -50%) <sup>b</sup>	20 60.6%	13 39.4%
Low performance quintile (-50% ≤ past excess returns < -25%) <sup>b</sup>	18 54.5%	15 45.5%
Mid-performance quintile (-25% ≤ past excess returns < -2.5%) <sup>b</sup>	14 42.4%	19 57.6%
Good performance quintile (-2.5% ≤ past excess returns < 35%) <sup>b</sup>	6 18.2%	27 81.8%
Top performance quintile (35% ≤ past excess returns) <sup>b</sup>	6 18.2%	27 81.8%
Chi-square test of homogeneity (4 <i>df</i> ) <sup>c</sup>		23.07

<sup>a</sup>The number of observations is 165.

<sup>b</sup>Past excess returns are the excess returns on the firm's stock in the 2 years preceding the succession.

<sup>c</sup>The null hypothesis that the percent of external successions is identical across all performance quintiles is rejected at the 0.1% level.

from outside. In contrast, top performers tend to appoint from inside. In the top two performance quintiles, including mainly firms with positive pre-succession performance, the frequency of internal successions is 82%. The difference in the choice of successor among the five performance quintiles is statistically significant ( $\chi^2$  of 23.07; *p*-value of 0.001).<sup>12</sup>

### Firm Size and the Source of Appointment

A separate analysis of the relation between firm's size and the source of appointment was also performed. Firms were classified into five quintiles according to their size relative to all NYSE and AMEX firms. The source of the appointment was then related to the size quintile.

Table III reports the results of this analysis. The hypothesis that there does not exist any relation between firm size and the source of succession is unequivocally rejected ( $\chi^2$  of 16.29, *p*-value of 0.001). It is found that the frequency of external successions is highest (over 60%) in the smallest firms quintile (quintile 1). Medium-sized firms (size quintiles 2-4) use external succession in only 40% of the cases, while our largest size (quintile 5) firms recruit from outside in only 20% of the cases.

One may wonder how independent the size effect is. From Table I, we see that large firms have better pre-succession performances. Hence, the

<sup>12</sup>A possible reason for the difference in results from Dalton and Kesner (1985) is the difference in prior performance measures. Dalton and Kesner use the accounting return on equity and the trend in stock price as their estimate of prior performance, while we use the excess return measure which is essentially the trend in stock price corrected for the general trend of the stock market.

**Table III.** Contingency Analysis of the Effect of Firm Size on Successor's Origin<sup>a</sup>

Firm size <sup>b</sup>	Number and percent of external successions		Number and percent of internal successions	
	Number	Percent	Number	Percent
1—small	18	64.3%	10	35.7%
2	9	37.5%	15	62.5%
3	13	46.4%	15	53.6%
4	14	40.0%	21	60.0%
5—big	10	20.0%	40	80.0%
Chi-square test of homogeneity (4 <i>df</i> ) <sup>c</sup>		16.29		

<sup>a</sup>The number of observations is 165.

<sup>b</sup>Firm size is the stock capitalization quintile relative to all NYSE and AMEX stocks. Stock capitalization is computed as the number of shares times the price per share of the company's common stock.

<sup>c</sup>The null hypothesis that the percent of external successions is identical across all size quintiles is rejected at the 0.1% level.

larger frequency of internal successions in large firms may be a result of their superior presuccession performances. To check this suspicion, we ran a two-way analysis-of-variance. It is found that both performance and size are important and statistically significant determinants of successor's choice. Hence, firm size affects successor's choice irrespective of past performance. Further results on this issue are offered later in this section.

### Successor's Choice and Postsuccession Performance

Table IV documents the average excess return in the 2 years before and 2 years after the succession. For internal successions, the presuccession average excess return is 13% and the postsuccession average excess return is -28%. The difference between the pre- and postsuccession excess returns

**Table IV.** The Effect of Successor's Origin on Firm Performance

	Average excess return in 2 years		Difference in average excess returns (after-before)
	Before succession <sup>a</sup>	After succession <sup>a</sup>	
Internal successions	13%	-28%	-41%
	(1.8)	(-4.8)	(-4.4)
External successions	-39%	-4%	+35%
	(-4.3)	(-0.4)	(2.6)
Difference between internal and external successions	52%	-24%	-76%
	(4.5)	(-2.0)	(-4.8)

<sup>a</sup>*t*-statistics are reported in parentheses.

is statistically significant, indicating that, on average, firm performance deteriorates following an internal succession.

An almost opposite picture is obtained when external successions are analyzed. The presuccession average excess return is dismal (-39%) while the postsuccession performance is about normal (-4%). The difference between the pre- and postsuccession performance is statistically significant. It appears that external successions stop firm deterioration, rehabilitate it, and help it embark on a normal course.

The last row of Table IV highlights the evidence from a different angle. Internal successions have a significantly higher presuccession performance, but a significantly lower postsuccession performance, than external successions. On average, internal successions have transformed firms from a relatively superior to a relatively inferior status.

### Multivariate Analysis

More rigorous tests of the research hypotheses require multivariate regression techniques. For example, the four hypotheses on successor's choice (Hypotheses 1-4) can be simultaneously tested by running a multivariate logistic regression. A dichotomous variable indicating the origin of the successor (0 = external, 1 = internal) is logistically regressed on four independent variables: past stock performance, size of the company, former manager disposition, and amount of power afforded to the successor (number of top positions she or he receive). The form of the Logit function fitted is:

$$\text{Logit}(P) = \ln(P/1-P) = a + b \cdot X$$

where  $P$  is the probability of external succession conditional on the vector  $X$  of independent variables;  $b$  is a vector of coefficients;  $a$  is the intercept; and  $\ln(\cdot)$  is the natural (base  $e$ ) logarithm.

Table V summarizes the results of the logistic regression. The estimated regression equation is:

$$\begin{aligned} \text{Logit} \left[ \begin{array}{l} \text{Probability} \\ \text{of external} \\ \text{successions} \end{array} \right] &= -0.439 - 0.912 \left[ \begin{array}{l} \text{Pre - succession} \\ \text{performance} \end{array} \right] + 0.237 \left[ \begin{array}{l} \text{Predecessor} \\ \text{disposition} \end{array} \right] \\ &+ 1.044 \left[ \begin{array}{l} \text{Number of} \\ \text{positions} \end{array} \right] - 0.137 \left[ \begin{array}{l} \text{Size of the} \\ \text{company} \end{array} \right] \end{aligned}$$

where the variables are defined and measured as in Table I.

Table V. Results of Logistic Regressions of the Source of Succession<sup>a</sup>

Independent variables	Coefficients (and <i>p</i> -values in parentheses)	
	The general model	A parsimonious model
Constant	-0.439 (0.420)	-0.287 (0.566)
Pre-appointment performance	-0.912 (0.005)	-0.922 (0.005)
Firm size	-0.137 (0.042)	-0.142 (0.035)
Number of position offered to new manager	1.044 (0.004)	1.052 (0.004)
Predecessor disposition	0.237 (0.520)	
Number of observations	163	165
Percent of correct predictions of the model	75.7	76.0
Wald test chi-square of the model ( <i>p</i> -value)	35.27 (0.0001)	35.77 (0.0001)

<sup>a</sup>Logit(*P*) = ln(*P*/1-*P*) = *a* + *b*·*X*. *P* is the probability of an external succession conditional on the vector of independent variables; *X* is the vector of independent variables used in this regression; *b* is a vector of coefficients; *a* is the intercept; ln() is the natural (base *e*) logarithm.

In the logistic regression the coefficient of former manager disposition is statistically insignificant, while the coefficients of past performance, number of positions and firm size are statistically significant. External successions are indicated to be relatively more frequent in smaller firms, in companies with poor past performance, and in companies which offer the successor more top positions. The null hypothesis that the variables employed have no explanatory power with respect to the source of succession is rejected at the 0.01% significance level, using a Likelihood Ratio Wald test.

Diagnostics of the logistic regression reveal that it is well specified. No serious problems of multicollinearity or serial correlation are detected. Furthermore, the model exhibits a significant predictive power. The proportion of correct predictions of the fitted model relative to the actual succession-choice observations is 0.757.

A slight improvement of the overall fit and predictive power of the model is obtained in the parsimonious model:

$$\text{Logit} \left[ \begin{array}{l} \text{Probability} \\ \text{of external} \\ \text{successions} \end{array} \right] = -0.287 - 0.922 \left[ \begin{array}{l} \text{Pre - succession} \\ \text{performance} \end{array} \right] \\ + 1.052 \left[ \begin{array}{l} \text{Number of} \\ \text{positions} \end{array} \right] - 0.142 \left[ \begin{array}{l} \text{Size of the} \\ \text{company} \end{array} \right]$$

Table VI. Regression Analysis of Postsuccession Performance<sup>a</sup>

Independent variables <sup>b</sup>	Coefficients ( <i>p</i> -values in parentheses)	
	General model	Parsimonious model
Constant	0.136 (0.47)	0.122 (0.31)
Source of appointments	-0.376 (0.005)	-0.306 (0.012)
Presuccession performance	0.060 (0.46)	
Firm size	0.016 (0.45)	
Number of positions offered to new manager	-0.241 (0.045)	-0.246 (0.038)
Predecessor disposition	-0.120 (0.31)	
Number of observations	163	165
Adjusted <i>R</i> <sup>2</sup>	0.037	0.039

<sup>a</sup>Two years postsuccession performance =  $a + b'X$ .  $X$  is the vector of independent variables used in this regression;  $a$  is an intercept;  $b$  is the vector of coefficients.

<sup>b</sup>These variables are defined and described in Table I.

The parsimonious model predicts correctly the source of succession in 76.0% of the sample.

There is also interest in a multivariate regression of postsuccession performance on successor's origin, presuccession performance, firm size, successor's discretion (number of positions), and predecessor's disposition. Such a regression should reveal some determinants of postsuccession success. If Hypothesis 5 is correct, then the coefficient of the source of succession should be statistically significant.

Table VI presents the results of the multivariate regression. The coefficient of the source of succession is negative and statistically significant, indicating that external successions lead to significantly better postsuccession performances. This evidence confirms Hypothesis 5 in a multivariate framework.

The multivariate regressions summarized in Table VI further identify a statistically significant relation between postsuccession performance and the number of positions delegated to the new manager. It appears that granting multiple top positions to the new manager reduces the postsuccession performance. Perhaps some opposition and diversity at the top are beneficial for maximizing firm value.

## DISCUSSION

The empirical analysis of successor choice practices in U.S. firms found three significant relations: (a) poor performing firms have a significantly

higher proportion of external successions; (b) larger firms appoint from their internal sources more frequently than smaller firms; and (c) when the number of positions offered to the new manager increases, the proportion of external successions also increases. These findings support Hypotheses 1–3 and reject Hypothesis 4. Predecessor's disposition is insignificantly correlated with the source from which the successor is drawn.

The support of the presuccession performance hypothesis is consistent with recent evidence on managerial appointments in the 1980s (see Datta & Guthrie, 1994). The fact that research with 1970s and earlier data recorded mixed results on the performance impact, may imply that the poor performance–external succession link has strengthened over the past two decades. It is possible that the intensifying threat of corporate raiders and takeovers in the 1980s and 1990s forced the boards of directors to undertake bolder steps when their companies underperformed. Companies could no longer sweep the dirt under the rug or laundry it inside the organization. They had to bring outside help and provide the new manager with ample authority.

The sampling technique of the study could also contribute to the finding of a significant effect of past performance. First, the *Wall Street Journal* (our source of succession events) could be biased toward publishing only management changes that are of public interest. It is likely that in such cases of public interest appointments boards of directors act more decisively than usual. Second, all the cleaning procedures of this study, designed at eliminating minor management changes, might have made the difference. In such a case, a cautious interpretation of the results would be that for major management changes presuccession performance matters.

The relation between performance and successor's origin does not seem to be linear. In the sample of poor performing firms (two lowest performance quintiles), the proportion of external successions is about 60%, while in the samples of reasonably performing and well performing firms (two highest performance quintiles) it is about 20%. The pressure to appoint from outside appears prevalent in poor performing firms.

Beyond the firm performance context, the size of the company appears as a key factor in the succession decision. Large firms motivate workers and build loyalty by promising progress opportunities within the firm. Large firms also typically develop management talent inside the firm and probably have reasonable internal candidates for the “vacant” top positions. Consequently, large companies have less incentive and recruit less from outside. According to our estimates in Table III, small (lowest size quintile) firms recruit predominantly from outside, while large (top size quintile) firms use external successions infrequently (in only 20% of the cases).

The third relation conceived in the study and upheld in the empirical tests is the relation between power and external successions. In firms that offer the successor more structural power (more top positions), there is a higher frequency of external successions. This finding is consistent with the basic presumption of Hypothesis 3 that external successors, as change agents, seek the power ingredient and prefer firms which offer them more top positions.

Hypothesis 4 focusing on another aspect of power, namely on predecessor's disposition (left or stayed), was however rejected. It is possible that Hypothesis 4 is fundamentally wrong. External successors may be largely indifferent to predecessor's disposition. This is because a staying predecessor who typically maintains only a seat on the Board of Directors may not present such a serious threat for the external successor. In addition, from the external successor perspective, there are some advantages in having the predecessor close by and available for explanations, at least during the new manager first steps in the firm (the "learning period"). Friedman and Singh (1989), the only other study to examine predecessor's disposition explicitly, could not find a significant relation between the origin of successor and predecessor's disposition either.

On reflection, the split performance of the power hypotheses in the tests is an indication that the investigation of the relation of power to succession choice is still at its preliminary stages. The successful tests of Hypothesis 3 must be supplemented by field studies on the motives of external candidates and the intentions of the recruiting firms.

Hypothesis 5 on the postsuccession performance is confirmed by the tests. We find that external successions lead on average to better postsuccession performances than internal successions. External successions transform poor performing firms into normal firms, while internal successions lead on average to performance losses.

The postsuccession performance results are consistent with the conjecture that an agency problem exists. Sometimes, board of directors members let their personal acquaintances and relations with internal candidates distort their succession choice. Thus: (1) some internal appointments are *ex ante* poor choices, and (2) external successors (who overcome the bias against recruiting from outside) ought to be, on average, better managers, and accomplish superior performances. It is interesting to note that the frequency of external successions has increased over time (Vancil, 1987), which might reflect some progress over time in the control of the internal succession associated agency problem.

Our interpretation of Hypothesis 5 findings may be criticized for ignoring the potential influence on stock prices of financial analysts and other Wall Street experts. It is possible that the opinion of these analysts triggered



the board room coup in the first place. If so, then the relatively good stock price behavior after external successions might partially reflect an attempt by these experts to justify and support their previous actions and recommendations. The new external managers may simply receive a honeymoon period, compliments of these important stock analysts.

On this occasion, and before concluding, it appears appropriate to recall the study limitations. First, our sample is not representative, as it is based on newspaper reports and not on a comprehensive scientific database of company executives.

Second, our measures may not be accurate. Specifically: (1) there is still no widely accepted definition in the literature of the exact cutoff between internal and external successions; (2) our pre- and postsuccession performance measures are based on stock prices which can be criticized; and (3) our size variable is based on the market value of firm equity, which is nonstandard.

Last, our hypotheses are not exhaustive and our evidence is only suggestive. The hypotheses we offer are statements about averages and general tendencies. We do not make individual firm predictions. For example, we do not claim, nor do we find, that it is optimal for every poor performer to appoint from outside. (Indeed, some poor performers exhibit improved performances after internal successions.) Likewise, while our results appear generally consistent with the hypotheses, they do not confirm the motivation we offered for the hypotheses. For example, we did not conduct interviews and did not show that external candidates demand power before accepting the job. Thus, much remains for future research.

## SUMMARY AND CONCLUSIONS

The study examines four theoretical hypotheses on the likely source of appointment (internal vs. external), and one hypothesis on the postsuccession performance. Using multivariate logistic regressions on a sample of 165 top management appointments in U.S. firms, it is found that internal successions are more likely in larger firms, in firms with good economic performance, and in firms which offer the successor only one of the top three positions (CEO, Chairman, and President). Predecessor's disposition (left or stayed with the firm) did not significantly impact the successor's choice.

Our findings on successor's choice contribute to existing literature in two ways. First, they confirm the effect of past performance on successor's choice. Such a relation was empirically established only by recent research. Second, they demonstrate the importance of the organizational power delegated to the new top manager. It appears that new managers from outside demand or are attracted by more positions at the top of the organization.

On a deeper level, these hierarchical power results suggest that successor's interests are also important in the managerial labor market. Future research should examine prospective successors' motives and considerations in more detail.

The study further analyzes the postsuccession performance, and finds that, on average, external successions turn the firm around, while internal successions weaken the firm. This evidence is consistent with the hypothesis that due to agency problems board of directors members sometimes choose an internal successor even when she or he is not an optimal choice for the firm. This agency problem, and its possible remedies should be further discussed by academics and practitioners alike.

### APPENDIX: THE CALCULATION OF EXCESS RETURNS

Excess returns are estimated using the event study methodology, originated by Fama, Fisher, Jensen, and Roll (1969). The procedure proceeds in the following steps:

1. Stock returns are assumed to follow the market model (Eq. 1), and the parameters of the model,  $a$  and  $b$ , are estimated in the period preceding the "event window":

$$R_{i,t} = a_i + b_i R_{m,t} + e_{i,t} \quad (1)$$

where  $R_{i,t}$  = the return of stock  $i$  on month  $t$ ,  $R_{m,t}$  = the return of the market portfolio on month  $t$ ,  $e_{i,t}$  = a random error term, and  $a_i, b_i$  = intercept and slope coefficients.

In this study an equally-weighted portfolio of all stocks on the NYSE and AMEX serves as a proxy of the market portfolio, and the parameters are estimated over the 36 months preceding the event window.

2. The excess return of each stock in each month of the event window is estimated as:

$$AR_{i,T} = R_{i,T} - \hat{a}_i - \hat{b}_i R_{m,T} \quad (2)$$

Where  $T$  = time relative to the event ( $T < 0$  for periods before the event and  $T > 0$  for periods after the event),  $AR_{i,T}$  = the estimated excess return of stock  $i$  on month  $T$ ,  $R_{i,T}$  = the realized return of stock  $i$  on month  $T$ ,  $R_{m,T}$  = the return of the equally-weighted market portfolio on month  $T$ , and  $\hat{a}_i, \hat{b}_i$  = the parameters of stock  $i$ 's market model (as fitted in step 1 above).

3. Individual stocks' excess returns are averaged cross-sectionally to obtain

$$AR_T = \frac{N_T}{\sum_{i=1}^{N_T} AR_{i,T}} / N_T \quad (3)$$

where  $AR_T$  = the average excess return of the sample stocks on month  $T$  of the event window,  $AR_{i,T}$  = the excess return of stock  $i$  on month  $T$ , and  $N_T$  = the number of stocks for which excess return on month  $T$  can be computed.

4. Cumulative average excess return measures are computed as:

$$CAR(T_b, T_e) = \sum_{T=T_b}^{T_e} AR_T \quad (4)$$

where  $CAR(T_b, T_e)$  = the cumulative average excess return in months  $T_b$  through  $T_e$ .

In this study,  $CAR(-24, -1)$  and  $CAR(1,24)$  are calculated.  $CAR(-24, -1)$  serves as a measure of the presuccession performance of the firm, and  $CAR(1,24)$  approximates the postsuccession performance of the firm.

## REFERENCES

- BEATTY, R. P., & ZAJAC, E. J. CEO change and firm performance in large corporations: Succession effects and manager effects. *Strategic Management Journal*, 1987, 8, 305-317.
- BOEKER, W., & GOODSTEIN, J. Performance and successor choice: The moderating of Management effects of governance and ownership. *Academy of Management Journal*, 1993, 36, 172-186.
- CARLSON, R. Succession and performance among school superintendents. *Administrative Science Quarterly*, 1961, 6, 210-227.
- CHUNG, K., LUBATKIN, M., ROGERS, R., & OWERS, J. Do insiders make better CEOs than outsiders? *Academy of Management Executive*, 1987, 1, 323-329.
- DALTON, D. R., & KESNER, I. F. Inside/outside succession and organizational size: The pragmatics of executive replacement. *Academy of Management Journal*, 1983, 26, 736-741.
- DALTON, D. R., & KESNER, I. F. Organizational performance as an antecedent of inside/outside chief executive succession: An empirical assessment. *Academy of Management Journal*, 1985, 28, 749-762.
- DATTA, D. K., & GUTHRIE, J. P. Executive succession: Organizational antecedents of CEO characteristics. *Strategic Management Journal*, 1994, 15, 569-577.
- DAVIDSON III, W. N., & WORRELL, D. L. The impact of announcements of corporate illegalities on shareholder returns. *Academy of Management Journal*, 1988, 31, 195-200.
- EISENHARDT, K. M. Agency theory: An assessment and review. *Academy of Management Review*, 1989, 14, 57-74.
- FAMA, E. F., FISHER, L., JENSEN, M. C., & ROLL, R. The adjustment of stock prices to new information. *International Economic Review*, 1969, 1, 1-21.
- FINKELSTEIN, S. Power in top management teams: Dimensions, measurement, and validation. *Academy of Management Journal*, 1992, 35, 505-538.
- FRIEDMAN, S. D., & SINGH, H. CEO succession and stockholder reaction: The influence of organizational context and event content. *Academy of Management Journal*, 1989, 32, 718-744.

- HAMBRICK, D. C., & FINKELSTEIN, S. Managerial discretion: A bridge between polar views of organizational outcomes. In B. M. Shaw and L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 9). Greenwich, CT: JAI Press, 1987, pp. 369-406.
- HAMBRICK, D. C., & MASON, P. A. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 1984, 9, 193-206.
- HARRISON, J. R., TORRES, D. L., & KUKALIS, S. The changing of the guard: Turnover and structural change in the top management positions. *Administrative Science Quarterly*, 1988, 33, 211-232.
- HELMICH, D. L., & BROWN, W. B. Successor type and organizational change in the corporate enterprise. *Administrative Science Quarterly*, 1972, 17, 371-381.
- KESNER, I. F., & SEBORA, T. C. Executive succession: Past, present & future. *Journal of Management*, 1994, 20, 327-372.
- KOSNIK, R. D. Greenmail: A study of board performance in corporate governance. *Administrative Science Quarterly*, 1987, 32, 163-185.
- LUBATKIN, M., CHUNG, K., ROGERS, R. C., & OWERS, J. E. Stockholder reactions to CEO changes in large corporations. *Academy of Management Journal*, 1989, 32, 47-68.
- PFEFFER, J. *Power in organizations*. Marshfield, MA: Pitman, 1981.
- PFEFFER, J. *Managing with power*. Boston, MA: Harvard Business School Press, 1992.
- REINGANUM, M. R. The effect of executive succession on stockholder wealth. *Administrative Science Quarterly*, 1985, 30, 46-60.
- SCHWARTZ, K. B., & MENON, K. Executive succession in failing firms. *Academy of Management Journal*, 1985, 28, 680-686.
- VANCIL, R. F. *Passing the baton: Managing the process of CEO succession*. Boston, MA: Harvard Business School Press, 1987.

## BIOGRAPHICAL NOTES

BENI LAUTERBACH received his Ph.D. in finance from the University of Chicago and is currently an Associate Professor at the Graduate School of Business Administration of Bar Ilan University, Israel. His main research focus is corporate control and specifically studies on top management selection, success and compensation.

JOSEPH D. VU is an Associate Professor of Finance at De Paul University in Chicago, Illinois. He received his Ph.D. in finance from the University of Chicago and his research focuses on corporate control and investment.

JACOB WEISBERG heads the division of Management and Organizational Behavior Studies at the Graduate School of Business Administration, Bar Ilan University, Ramat Gan, Israel. His research interests include labor turnover, human resource management, quantitative models in HRM, and labor market issues.