THE INFLUENCE OF POSITION TENURE ON CEO WORK ROLES

Richard M. Castaldi, Management, San Francisco State University

ABSTRACT

Mintzberg proposed a contingency theory in which he posits that environmental, job, person, and situational variables affect the work of a manager. This study examined an untested proposition of the theory that position tenure, a situational variable, affects the relative importance of CEO work roles. Results suggest there are clear differences in the relative importance of three work roles that can be attributed to position tenure. An evolutionary pattern of work role importance based on CEO tenure also surfaced. Moreover, two recommendations for executive development programs are proffered based on these findings.

INTRODUCTION

The study of chief executive officers (CEOs) has been an important part of management research since Sune Carlson's classic study in 1951. The original studies focused primarily on identifying work activities associated with that position (Burns, 1957; Chandler, 1962; Copeman, 1959; Cordiner, 1965; Drucker, 1967; Dubin & Spray, 1964; Marples, 1967; Sayles, 1964; Stewart, 1967; Stogdill & Shartle, 1956). Although the differences may be largely semantic, other researchers have focused on more specific aspects of the CEO position. For example, Christensen (1953) examined CEO succession; Mace (1965) looked at the relationship between CEOs and corporate planning; Steiglitz (1968) studied CEOs and their duties; and Rock (1977) researched CEOs and their accountabilities.

More recently a specific body of research directly focusing on CEOs and managerial work roles has begun to emerge. Seminal studies by Hemphill (1960) and Mintzberg (1973) identified managerial work roles that are inherent to the position of the CEO. Furthermore, Mintzberg (1973) proposed a contingency theory of managerial work. He concluded that the work of a particular manager is a function of environmental, job, person, and situational

variables. Environmental variables are described as characteristics of the milieu, the industry, and the organization. Job variables include the level of the job and the function supervised. Person variables focus on personality and style characteristics of the individual in the job. Situational variables consist of temporal features of an individual job.

Various research studies have been conducted to explore contingency factors that affect managerial work. Two environmental variables, organizational size (Choran, 1969; Paolillo, 1984) and technological volatility (Castaldi, 1984); two job variables, hierarchical level (Alexander 1979; Paolillo, 1981; Pavett and Lau, 1985) and function supervised (Pavett and Lau, 1985); and one person variable, the manager's functional background (Alexander, 1979; Pavett and Lau, 1983), were all found to affect the degree of importance placed on specific work roles. This study examines the influence of position tenure, a situational variable, on CEO work role importance. Mintzberg stated, "As managers gain experience in their jobs they change their working behaviors" (1973, p. 122). This project tests that proposition and specifically identifies the nature and extent of work role changes

that can be attributed to position tenure.

These studies, which identify factors that affect the work of a manager, are important for two reasons. First, they provide fresh insights as to what managers actually do and why managerial jobs differ. These insights allow us to move beyond the POSDCORB (planning, organizing, etc.) paradigm that has dominated management literature since Fayol formulated it in 1916. Second, these studies facilitate a deeper understanding of the complexities associated with managerial work. The identification of specific contingency factors that affect managerial work can be instrumental in improving the selection, development, and evaluation of managers.

Nowhere is this complexity more pronounced than at the apex of the organization where the CEO operates. The position of the CEO is not only the most intricate in the organization, it is also the most important. In spite of this fact there is a relative paucity of empirical studies that focus on what factors affect the work of the CEO. Bacon and Laporte (1969) conducted the only study that investigated the effect that experience has on the working behaviors of CEOs. However, certain methodological shortcomings render these results suspect in regard to identifying the true effect of CEO tenure. They sent a questionnaire to 75 CEOs in four broad industry groupings regarding changes that occur in the CEO's job as tenure increases. Based on this survey they generated a list of work activities that accrued more importance with longer tenure. The major problem with their findings regarding CEO tenure is stated in their report:

Some of the changes noted in the duties and skills required of CEOs are not simply functions of time, or long tenure in office; they are a reflection of changes that have taken place in the last few years in particular industries

and in the general economy and business climate. (p. 7)

A second problem inherent to their methodology is that the effects of company growth are not separated from the effects of CEO tenure. In fact, "company growth is mentioned most often as the cause of changes in the CEO's job" (p. 7). Thus, in the Bacon and Laporte study, the influence of CEO tenure is blurred by the confounding effects of other variables. This research obviates the methodological shortcomings of that study so the true effect of CEO tenure emerges.

To study the effect of position tenure, the work roles and associated work activities inherent to the CEO position were examined. Sarbin and Allen (1968) defined work roles as an organized set of behaviors belonging to an identifiable position. The work roles utilized in this study were those created by Hemphill. He generated his set of managerial work roles by compiling a list of 575 work activities from interviewing managers and examining job description statements. This list of work activities was evaluated by 93 executives in five large manufacturing firms. Using a Likert scale, each manager rated the extent to which each statement applied to his/her job. This analysis produced a set of eight work roles that would be germane to studying the position of the CEO. These roles and examples of related work activities are:

A. Providing a staff service in non-operational areas: (1) Selection of new employees, and (2) Assign jobs to subordinates;

B. Supervision of work: (1) Troubleshoot special operational problems as they arise, and (2) Decide the best use of available facilities;

C. Business control: (1) Review of budgets for operations, and Maintenance of proper inventories;

D. Technical concerns with products and markets: (1) Assist sales people in securing important accounts, and (2) Anticipate new or changed demand for products;

E. Human, community, and social affairs: (1) Active in community affairs, and Promotion of company to public;

F. Long-range planning: (1) Formulation of long-term objectives for organization, and Determination of business activities to engage in;

G. Business reputation: (1) Oversees delivery schedules, and Oversees the quality of company products;

H. Preservation of Assets: Oversees capital expenditures, and Determines utilization of capital assets (Hemphill, 1960, p. xiii).

Reliabilities for each set of work activities ranged from .74 to .89. Low intercorrelations among the work roles indicated their relative independence. Although these work roles were formulated in 1960, they are supported by recent work on managerial behavior. In his study of managerial work behavior, Whitely (1985, p. 344) notes, "Studies as widely spaced in time as Hemphill (1960) and Tornow and Pinto (1976) identify similar behavioral (work) dimensions."

Mintzberg's roles were not utilized in this study even though they are more widely recognized in the current literature on managerial work roles. This is due to the problem in relating specific work activities to his work roles. Snyder and Wheelen conducted a study using Mintzberg's work roles and stated:

One difficulty found in applying Mintzberg's scheme was that it was impossible to place many (work) activities into one and only one role group . . . Mintzberg's role categories are not mutually exclusive. For research pur-

poses, this problem becomes significant when one attempts to differentiate between (work) activities associated with roles. (1981, p. 251)

Since the instrument utilized to collect the data specifically uses work activities associated with roles, the set of work roles constructed by Hemphill was deemed more appropriate for this particular study.

HYPOTHESES

The contingency theory of managerial work suggests that the work of a CEO will vary depending upon specific environmental, job, person, and situational variables. Bacon and Laporte's (1969) study identified "organizing, planning, financial management, and absorbing technical knowledge" (p. 9) as activities that had accrued more importance as tenure increased. On the basis of that finding, the following is posited:

HYPOTHESIS 1: The work roles long-range planning, preservation of assets, and technical concerns with products and markets will be perceived as more important roles to CEOs with long tenure.

The second hypothesis is guided by prior studies (Alexander, 1979; Choran, 1969; Cohn and Lindberg, 1978; Cooper and Bruno, 1977; Kotter, 1982; Paolillo, 1981; Taylor, 1973; Van Hoorn, 1979), which suggest that newer CEOs tend to prioritize working behaviors closely related to their former positions. Generally these former positions are more operational in nature than the position of the CEO. Mintzberg called this "the new job pattern" (1973, p. 124). Also, less experienced CEOs may tend to emphasize operational-oriented activities because they have not had time to build a team of executives on whom they rely to manage the operational side.¹ Finally, in the Bacon and Laporte (1969) study, many CEOs with longer tenure stated that the added attention given to certain, more strate-

gic-oriented work activities was "at the expense of dealing with day-to-day operating matters" (p. 9). These conclusions provide the basis for the following:

HYPOTHESIS 2: The work roles supervision of work and business control will be more important to CEOs with less tenure since these work roles have a distinct operational orientation.

METHOD

Research Design

The primary thrust of this research centers on the judgment of the CEOs as to their perception of the relative importance of the managerial work roles identified with their position. One method of accomplishing this would be to simply ask each CEO to rank each work role in terms of relative importance. However, Slovic and Lichtenstein (1971) established that most decision makers have poor insight when utilizing such subjective estimates of their own multiple-criteria decision process. To overcome this problem, Brunswik's Lens Model was used to study the judgment process of the CEOs.

In the Lens Model, each subject is required to make a quantitative evaluation of a large number of situations so that each subject's behavior may be tested for statistical significance. This ideographic-statistical approach allows for the utilization of a small sample size and is one of the primary advantages of the Lens Model.

In this study, each CEO was presented with a set of 35 hypothetical CEO profiles. Each profile contained specific work activities that represented each of the eight work roles. Each work role was described in terms of two ability levels, excellent or poor, and was distributed in a 4:4 ratio. Thus, each of the 35 hypothetical CEO profiles has four excellent-ability work

roles and four poor-ability work roles. In using such a split, the design is controlled for rater judgment bias that may occur should the profile be weighted unevenly with either more "excellent" or "poor" work role abilities. With instruction by the researcher, each CEO made judgments as to the predicted effectiveness of each hypothetical CEO, based on a scale of 1 (extremely ineffective) to 9 (extremely effective). By varying the two different levels of ability for each work role on each hypothetical CEO profile, it is possible to determine the relative degree of importance that the CEO places on each work role.

Sample

The subjects of this research project consisted of 10 CEOs of wood furniture manufacturing firms (SIC # 2510). The sample was constructed to hold constant as many extraneous variables as possible. A single industry was selected, firms were of comparable size, and each reported profitable operations over the last five years.

Ten years in office was selected as the cut-off point because that is the mean CEO tenure reported by Bacon and Laporte in their 1969 study of 75 CEOs. In this study, three subjects have been CEOs for less than ten years, while seven have been CEOs for ten or more years. Each CEO was interviewed, and the data collection instrument was completed in the author's presence.

DATA ANALYSIS

To measure the influence of each work role, an ANOVA was performed on each CEO's set of responses. This technique was used because of its ability to describe linear aspects of the judgment process (Kerlinger, 1970). Within the framework of the model, it is possible to calculate two indices of importance for each work role. One is the standard calculation of the mag-

nitude of the effect. This is based upon the degree to which the dependent variable (i.e., "predicted effectiveness") shifted as the levels of the work role varied from poor to excellent. A positive magnitude of effect indicates the work role is important, while a negative magnitude of effect indicates the work role is unimportant. In other words, a negative magnitude of effect occurs if the predicted effectiveness variable is reduced when the level of ability goes from poor to excellent. Therefore, this index provides the "direction" and "degree" of importance of each work role.

A second index, omega (w) is a function of the squared magnitudes of effect, while w^2 gives the proportion of variance accounted for in the dependent variable when the independent variables are qualitative. Thus, this w^2 statistic provides an estimate of the proportion

of the total variance in the CEO's judgments that may be attributed to a particular work role.

Scheffe's post hoc test for multiple comparisons was used to compare the group of CEOs with less than ten years of tenure with the group of CEOs with ten or more years of tenure to identify which work roles were significantly different ($p < .05$) between the two groups of CEOs.

RESULTS

All ten CEOs rejected the null hypothesis and accepted the alternative hypothesis that there are significant differences in the degree of perceived importance of the eight work roles. Table 1 presents the major results of the ANOVA for each CEO.

The R^2 ranged from .48 to .93 and

Table 1
Summary of ANOVA of Each CEO

CEO #	F Value	Significance Level	R^2	Standard Deviation
1	5.42	.0007	.65	.41
2	39.38	.0001	.93	.18
3	26.53	.0001	.90	.24
4	5.71	.0005	.66	.34
5	6.17	.0003	.68	.33
6	3.46	.0092	.54	.37
7	2.63	.0331	.48	.47
8	4.44	.0023	.61	.52
9	5.75	.0004	.67	.38
10	22.96	.0001	.89	.20

had a mean of .70, indicating the model predicts well in terms of explaining the variance. The level of significance for the computed F values for the ten CEOs ranged from .0001 to .0331. Clearly, the CEOs in this study perceived differences in the relative importance of the eight work roles. This supports Mintzberg's proposition that "to say all work roles form a gestalt is not to say that all managers give equal attention to each role" (1973, p. 58).

The degree and direction of work role importance for each CEO is displayed in Table 2. The mean of the magnitude of effect of each work role for each group of CEOs was used to rank the work roles in order of importance. The first hypothesis stated that the work roles "technical concerns with products and markets" (D), "long-range planning" (F), and "preservation of assets" (H) were more important to CEOs with longer tenure. This hypothesis was generated based on the results that emerged from Bacon and Laporte's (1969) study, which suggested these work activities accrue most importance as tenure increases. CEOs with ten or more years of tenure and CEOs with less than ten years of tenure basically agree that "technical concerns with products and markets" (D) is not an important work role. Table 2 shows that both groups of CEOs had a negative mean magnitude of effect index for this role. Five of the seven CEOs with ten or more years of tenure had a negative magnitude of effect index, and two of the three CEOs with less than ten years of tenure had a negative magnitude of effect index. Thus, the length of CEO tenure appears to have no influence as to the relative importance or unimportance of the work role "technical concerns with products and markets" (D).

Both groups of CEOs also had similar perceptions as to the relative importance of the work roles "long-range planning" (F) and "preservation of assets" (H). Table 2 shows CEOs with

ten or more years of tenure ranked work roles F and H as the two most important work roles. Every CEO in this group had a positive magnitude of effect index for both roles. The results of the ANOVA of each CEO presented in Table 3 also supports this conclusion. Six of the seven CEOs with ten or more years of tenure had significant and relatively high amounts of variance explained for work role F, and all seven had significant and relatively high amounts of variance explained for work role H.

CEOs with less than ten years of tenure perceived work roles "long-range planning" (F) and "preservation of assets" (H) to be important although not as definitively as the other group of CEOs. Table 3 shows work role H had a relatively high w^2 for two of the three CEOs in this group; however, the third CEO had no variance explained and a negative magnitude of effect index as shown in Table 2. There were significant results for only one of the three CEOs. CEOs with less than ten years of tenure also perceived the work role "long-range planning" (F) in a similar context. Two of the three CEOs had significant results for this work role. However, little variance was explained as indicated in Table 3. Also, one of the three CEOs in this group had a negative magnitude of effect index as shown in Table 2.

Scheffe's post hoc test of multiple comparisons, a very conservative test (Hays, 1963; Wilson, 1978) was not significant at the .05 level that was set a priori. The p values of the differences between the group means was .142 for work role F and .112 for work role H. Thus, the hypothesis that the work roles "technical concerns with product and markets" (D), "long-range planning" (F), and "preservation of assets" (H) are more important to CEOs with longer tenure is rejected. However, the evidence does suggest that there is a positive relationship between CEO tenure and the relative importance of

Table 2

Direction and Degree of Work Role Importance for Each CEO*

CEO < 10 Years Tenure	Magnitude of Effect of Managerial Work Roles**							
	A	B	C	D	E	F	G	H
1	.125	.016	.375	-.307	-.667	.159	-.159	.466
2	.375	.612	-.500	.308	-.095	.223	-.476	.467
3	<u>-.063</u>	<u>-.114</u>	<u>1.063</u>	<u>-.425</u>	<u>-.341</u>	<u>-.294</u>	<u>.166</u>	<u>-.107</u>
$\bar{X}$	.145	.171	.312	-.141	-.368	.030	-.156	.305
Rank	4	3	1	6	8	5	7	2
CEO $\geq$ 10 Years Tenure								
4	-.375	-.188	-.125	.324	-.254	.381	-.127	.400
5	-.125	-.243	-.250	-.024	-.397	.270	.365	.433
6	.188	-.058	-.062	-.076	-.326	.326	-.326	.350
7	-.188	-.247	-.188	-.012	-.198	.452	-.071	.483
8	.000	-.125	-.625	-.259	-.254	.635	.127	.533
9	.000	-.408	-.250	.227	-.317	.191	-.063	.666
10	<u>.000</u>	<u>-.408</u>	<u>-.250</u>	<u>-.033</u>	<u>-.191</u>	<u>.571</u>	<u>-.191</u>	<u>.533</u>
$\bar{X}$	-.071	-.240	-.250	-.021	-.277	.404	-.041	.485
Rank	5	6	7	3	8	2	4	1
p value***	.061	.004	.001	.952	.803	.142	.912	.112

* Calculation based upon the degree to which the dependent variable (predicted effectiveness) shifted as the level of the work role varied from poor to excellent. A minus (-) sign denotes a negative direction, which indicates the work role is considered unimportant.

** A: Providing a staff service in a non-operational area
 B: Supervision of work
 C: Business control
 D: Technical concerns with products and markets
 E: Human, community, and social affairs
 F: Long-range planning
 G: Business reputation
 H: Preservation of assets

*** Scheffe's test for post hoc comparisons of each work role for each group of CEOs.

Table 3
Percent of Variance Explained (ω^2)
for Each CEO and Each Work Role***

CEO < 10 Years Tenure	ω^2 of Managerial Work Roles****							
	A	B	C	D	E	F	G	H
1	.000	.000	.081**	-.047**	-.285*	.002	-.002	.124
2	.094*	.255*	-.170*	.060*	-.003	.030*	-.152*	.138*
3	-.000	-.003	.651	-.097*	-.062*	-.045*	.012**	-.000
CEO $\geq$ 10 Years Tenure	A	B	C	D	E	F	G	H
4	-.124*	-.020	-.001	.085*	-.048	.126*	-.001	.133*
5	-.002	-.045**	-.049**	-.000	-.142*	.058**	.118*	.125*
6	.020	-.000	-.000	-.000	-.098**	.098**	-.098**	.110**
7	-.005	.026	-.005	-.000	-.008	.136*	-.000	.150*
8	.000	-.000	-.175*	-.015	-.014	.180*	.000	.114*
9	.000	-.116*	-.035**	.025	-.064**	.014	-.000	.314*
10	.000	-.160*	-.057*	-.000	-.031*	.315*	-.031*	.261*

* $p < .01$

** $p < .10$

*** The positive and negative notation is determined by the direction of the magnitude of effect. A positive sign indicates work role importance; a negative sign indicates that work role is unimportant.

**** A: Providing a staff service in a non-operational area
 B: Supervision of work
 C: Business Control
 D: Technical concerns with products and markets
 E: Human, community, and social affairs
 F: Long-range planning
 G: Business Reputation
 H: Preservation of assets

"long-range planning" (F) and the "preservation of assets" (H) work roles.

The second hypothesis stated that the work roles "supervision of work" (B) and "business control" (C) were more important to CEOs with less tenure due to their operational orientation. Table 2 shows that the group of CEOs with less than ten years of tenure had

virtually opposite perceptions as to the relative importance of these work roles when compared with the group of CEOs with ten or more years of tenure. CEOs with less than ten years of tenure ranked "business control" (C) first and "supervision of work" (B) third in overall importance. Conversely, CEOs with ten or more years of tenure ranked work roles B and C sixth and next-

to-last in importance. In fact, every CEO in this group had a negative magnitude of effect index for each of the roles.

Scheffe's method for post hoc comparisons was again used to test whether the differences between the group means were significant. The results of this test show that the differences between the two groups of CEOs in the relative importance of the work roles "supervision of work" (B) and "business control" (C) are indeed significant as indicated by the p values in Table 2 of .004 and .001, respectively. Thus, the hypothesis that these work roles would be perceived as being more important, because of their operational orientation, to CEOs with less tenure is substantiated.

There also appears to be a difference as to how both groups of CEOs perceive the work role "providing a staff service in a non-operational area" (A). Table 2 shows that this work role is important to CEOs with less than ten years of tenure. Two of the three CEOs in this group had a positive magnitude of effect index, while only one of the seven CEOs with ten or more years of tenure had a positive index. Moreover, Scheffe's post hoc test showed this difference in the group means to be important as evidenced by the p value of .061.

Both groups of CEOs agree that "human, community, and social affairs" (E) and "business reputation" (G) are not important work roles. In fact, Table 2 shows that every CEO in both groups had a negative magnitude of effect index for work role E. This work role was also ranked last in importance by both groups. Five of the seven CEOs with ten or more years of tenure had a negative magnitude of effect index for the work role "business reputation" (G). Two of the three CEOs with less than ten years of tenure also had a negative magnitude of effect index for this work role, and

both groups had a negative mean index. The general agreement between the two groups of CEOs as to their perception of the unimportance of work roles E and F is also supported by the high p values of .803 and .912, respectively.

Overall, it appears there are differences in perceived work role importance between the two groups of CEOs. CEOs with less than ten years of tenure perceive the work roles "business control" (C), "preservation of assets" (H), "supervision of work" (B), "providing a staff service in a non-operational area" (A), and "long-range planning" (F) to be the important roles. CEOs with ten or more years of tenure perceive the work roles "preservation of assets" (H) and "long-range planning" (F) to be of paramount importance as all other roles were viewed as unimportant by this group.

DISCUSSION

The results of this study suggest that CEOs do change their working behaviors as they gain experience. Moreover, there appears to be an evolutionary pattern to this change in working behaviors. CEOs with ten or more years of tenure perceive only the work roles "long-range planning" (F) and "preservation of assets" (H) to be important. CEOs with less than ten years of tenure perceive those two roles, plus "business control" (C), "supervision of work" (B), and "providing a staff service in a non-operational area" (A) to be important work roles. This suggests that newer CEOs perceive their responsibilities in a broader context than more experienced CEOs. As tenure increases, the individual appears to become more narrow in focus. Certainly some of the more operational activities of a CEO's job are relegated to a lower degree of importance. As hypothesized, CEOs with less tenure are likely to place more importance on certain operational-oriented activities. This is primarily due to an individual's predilection to prioritize working be-

haviors more closely related to their former position. As they build up their own team of executives and become more ensconced in their job as a CEO, they focus more on strategic-oriented activities such as long-range planning and utilization of capital assets.

These findings have implications for management and executive development programs. Inherent to such programs should be an awareness of one's propensity for prioritizing responsibilities that were incumbent to prior positions but not necessarily to a new position. New CEOs and other high-level executives would particularly benefit from being more cognizant of tendencies to overemphasize some of the more operational activities of their position. This accrues additional importance because efforts directed towards operational activities would usually be at the expense of more important strategic activities.

The fact that CEOs with more than ten years of tenure only place importance on two of the eight work roles

may be another issue that executive development programs should address. No doubt long-range planning and preservation of assets are critical responsibilities for CEOs. However, it is surprising that all other work roles were perceived as unimportant. This may suggest that CEOs who have spent a long-time in that position may tend to focus on too narrow a range of responsibilities. Executive development programs could emphasize the need to recognize the full spectrum of activities that is necessary to effectively manage an organization.

The results of this study spawn another important research question. What is the proper balance among managerial work roles for CEOs? Certainly there is no one right answer for all CEOs. However, the CEO position is too intricate and important to organizational success for this question not to be addressed. Relative to other managerial positions, there is a distinct paucity of research on CEOs. This study provides a starting point for a closer examination of this important position.

1. Special thanks to Rosemary Stewart for this suggestion.

REFERENCES

- Alexander, L. D. (1979). 'The effect level in the hierarchy and functional area have on the extent Mintzberg's roles are required by managerial jobs'. *Academy of Management Proceedings*.
- Ansoff, H. I. (1972). 'The concept of strategic management'. *Journal of Business Policy*, 2, 4, 2-7.
- Ansoff, H. I., Declerck, R. P. and Hayes, R. L. (eds.) (1976). *From Strategic Planning to Strategic Management*. London: John Wiley and Sons.
- Bacon, J. and Laporte, L. (1969). 'The chief executive and his tenure'. *Managing the Moderate-Sized Company, Report No. 12*. New York: National Industrial Board.
- Burns, T. (1957). 'Management in action'. *Operational Research quarterly*, 8, 45-60.
- Castaldi, R. M. *An Analysis of Work Roles and Strategic Orientation of CEOs in a Technologically Stable and a Technologically Turbulent Industry*. Paper presented at the Academy of Management Conference, 1984.
- Chandler, A. D. (1962). *Strategy and Structure*. Cambridge: MIT Press.
- Choran, I. (1969). *The Manager of a Small Company*. Unpublished master's thesis, McGill University, Montreal.
- Christensen, C. R. (1953). *Management Succession in Small and Growing Enterprises*. Boston: Division of Research, Harvard University.
- Cohn, T. and Lindberg, R. A. (1978). *Survival and Growth: Management Strategies*

- for the Small Firm*. New York: AMACOM.
- Cooper, A. and Bruno, A. (1977, April). 'Success among high-technology firms'. *Business Horizons*, 16-22.
- Copeman, G. H. (1959). *The Role of the Managing Director*. London: Business Publications Ltd.
- Cordiner, R. J. (1965) 'The work of the chief executive'. In T. Maranian et al., *Business Policy and Its Environment*. New York: Harper and Row.
- Drucker, P. F. (1967). *The Effective Executive*. New York: Harper and Row.
- Dubin, R., and Spray, S. L. (1964). 'Executive behavior and interaction'. *Industrial Relations*, 3, 99-108.
- Fayol, H. (1916). *Administration Industrielle et Générale*. Paris: Donod.
- Hammond, K. R., and Wascoe, N. E. (eds.) (1980). *New Directions for Methodology for Social and Behavioral Science*, 3.
- Hays, W. L. (1963). *Statistics for Psychologists*. New York: Holt, Rinehart and Winston.
- Hemphill, J. K. (1960). *Dimensions of Executive Positions*. Columbus, OH: Bureau of Business Research, Ohio State University.
- Kerlinger, F. N. (1970). *Foundations of Behavioral Research*. 2nd edition. New York: Holt, Rinehart and Winston.
- Kotter, J. P. (1982). *The General Manager*. New York: The Free Press.
- Mace, M. L. (1965). 'The president and corporate planning'. *Harvard Business Review*, 43, 1, 49-62.
- Marples, D. L. (1967). 'Studies of managers: A fresh start?' *The Journal of Management Studies*, 4, 282-299.
- Mintzberg, H. (1973). *The Nature of Managerial Work*. New York: Harper and Row.
- Mintzberg, H. (1973). 'A new look at the chief executive's job'. *Organizational Dynamics*, 1, 3, 20-30.
- Mitroff, I. (1974). 'A Brunswik Lens Model of dialectical inquiring systems'. *Theory and Decision*, 5, 45-67.
- Paolillo, J. G. P. (1984). 'The manager's self assessments of managerial roles: Small vs. large firms'. *American Journal of Small Business*, 5, 3, 58-64.
- Paolillo, J. G. P. (1981). 'Role profiles for managers at different hierarchical levels'. *Academy of Management Proceedings*.
- Pavett, C. M., and Lau, A. W. (1983). 'Managerial work: The influence of hierarchical level and functional specialty'. *Academy of Management Journal*, 26, 1, 170-177.
- Rock, R. H. (1977). *The Chief Executive Officer*. Lexington, MA: D. C. Heath and Company.
- Sarbin, T. R., and Allen, V. L. (1968). 'Role theory'. In G. Lindzey and E. Aronson, eds., *The Handbook of Social Psychology* (488-567). 2nd edition. Reading: Addison-Wesley.
- Sayles, L. (1964). *Managerial Behavior*. New York: McGraw-Hill Book Company.
- Schendel, D., and Hofer, C. (eds.) (1979). *Strategic Management: A New View of Business Policy and Planning*. Boston: Little Brown and Company.
- Slovic, P. (1972, September). 'Psychological study of human judgment: Implications for investment decision-making'. *Journal of Finance*, 779-799.
- Slovic, P., and Lichtenstein, S. (1971). 'Comparison of bayesian and regression approaches to the study of information processing in judgment'. *Organizational Behavior and Human Performance*, 2, 6, 649-744.
- Snyder, N. H., and Wheelen, T. L. (1981). 'Managerial roles: Mintzberg and the Management Process Theorists'. *Academy of Management Proceedings*.
- Stahl, M. J., and Zimmerer, T. W. (1984, June). 'Modeling strategic acquisition policies: A simulation of executives' acquisition decisions'. *Academy of Management Journal*, 27, 2, 369-383.

- Steiglitz, H. (1968). 'The chief executive and his job'. *Personnel Policy Study No. 214*. New York: National Industrial Conference Board.
- Stewart, R. (1967). *Managers and Their Jobs*. London: Macmillan.
- Stogdill, R. M., and Shartle, C. L. (1956). *Patterns of Administrative Performance*, Research Monograph No. 18. Columbus: The Ohio State University, Bureau of Business Research.
- Taylor, B. (1973). 'Introducing strategic management'. *Long-Range Planning*, 6, 3, 34-38.
- Tornow, W. S. and Pinto, P. (1976). 'The development of a managerial job taxonomy: A system for describing, classifying and evaluating executive positions'. *Journal of Applied Psychology*, 61, 410-418.
- Tosi, H., Aldag, R., and Storey, R. (1973). 'On the measurement of the environment: An assessment of the Lawrence and Lorsch Environmental Uncertainty Subscale'. *Administrative Science Quarterly*, 18, 27-36.
- Van Hoorn, T. (1979, April). 'Strategic planning in small and medium-sized companies'. *Long-Range Planning*, 84-91.
- Whitely, W. (1985, June). 'Managerial work behavior: An integration of results from two major approaches'. *Academy of Management Journal*, 28, 2, 344-462.
- Wilson, T. C. (1978). *Researchers Guide to Statistics*. Washington: University Press of America.