AN ANALYSIS OF THE WORK ROLES OF CHIEF EXECUTIVE OFFICERS IN SMALL FURNITURE MANUFACTURING FIRMS

by

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Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Business Administration

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August, 1982

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ACKNOWLEDGEMENTS

The author wishes to extend sincere thanks and appreciation to the chairman of this committee, Dr. Max S. Wortman, Jr. Those who know Max know that words cannot express adequately all that he has done. When necessary, he provided support, constructive criticism and encouragement. However, his real contriubtions were much less tangible but much more important in my career and my life.

Specific thanks are also extended to the other members of my committee, Dr. Robert J. Litschert, Dr. Richard E. Wokutch, Dr. Arthur J. Keown and in particular, Dr. Kent B. Monroe who helped me perservere at a point when I needed it most.

I would also like to acknowledge my collegues in the doctoral program at Virginia Tech. We studied, sweated, laughed, and learned from each other. The synergy created by this group enhanced all of us.

Very special thanks and appreciation are extended to my Mother. Once again, words cannot do justice for a woman who, along with my Father, raised a "small organization" of 11 children. Her maximization of resources made her the most effective CEO I have ever encountered. Her contributions cannot be chronicled, only felt. All 10 of by brothers and sisters provided support throughout. However, Marian and Nancy deserve special acknowledgement for their special contributions.

Finally, I would like to thank some friends who helped along the way. In no particular order, they are: Bob A., Alex D., Susan P., Tricia S., Richard D., LuAnn R., and Bob P. Their support and friendship not only helped make this dissertation a reality, but also made it a special experience.

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CHAPTER 1

INTRODUCTION

The strategic management of an organization falls under the domain of top management. The acceleration of environmental change coupled with the increasing complexity of the internal aspects of an organization increases the necessity for effective top managers. Thus, top management's job involves operational as well as strategic functions.

This delineation of managerial work into strategic and operational components permits a closer study of the top manager's job. Obviously, efforts directed toward operational aspects of the firm must reduce or constrain efforts toward the strategic management of the firm. To be an effective manager, he/she must allocate their time and effort efficiently to achieve a proper "balance" between the strategic and operational management of the organization. The importance of striking this balance was noted by Ansoff:

> And yet, to survive and succeed, all organizations need to adapt to the environment (strategic management) and to operate in that environment (operations management). If both are to be attended to, a fundamental managerial dialectic has to be resolved: the conflict between the strategic and operations management [1, p.7].

Achieving this "balance" between strategic and operational management accrues ever more importance to top managers of small organizations for two reasons. First, small firms do not have the management depth of their larger counterparts, nor can they as readily absorb bad decisions, economic shifts and sales fluctuations [4]. Second, it has been shown that the top managers of small firms often have a propensity to emphasize operational management when more of their efforts should be directed toward the strategic management of the firm. In 1978, Cohn and Lindberg commented:

> Because so many small firms had to focus on controlling costs, pinching pennies, and developing an intimate knowledge of the internal organization [operations management] in order to stay alive in their early years, their managers later find it difficult to keep in touch with the outside world [strategic management]. The [operational] techniques that sustain a company when it is small and undercapitalized may later make its manager turn his back on the need to invest in the firm's future [4, pp. 20, 21].

BACKGROUND

For some time business policy and strategic management theorists have recognized that managerial work could be delineated into separate components. In the late 1960s, Ansoff divided managerial work into three distinct action and decision areas: strategic, administrative and operational [2]. Basically he described the strategic area as being "concerned with establishing the relationship

between the firm and its environment", the administrative area as "establishing the structure and the shape of the firm", and the operating area as "selecting the operating levels for the firm" [2, p. 14]. Naturally, it is up to top management to integrate these components. However, this integration and "balancing" is not a simple task. Ansoff stated:

> ...The responsibility for attending to all three classes of decisions resides in a level of top management usually called general management. Thus the three classes must compete for the resources of the firm as well as for top management time and attention. Of the three, operating decisions tend to receive priority for several reasons: first, because they are routine and repetitive; second, because they are automatically brought to top managers' attention by lower level managers; third, because they are frequent and large in volume; fourth, because many top managers find them familiar by virtue of their previous levels in the firm at which operating decisions are the sole management responsibility [2, p. 15-17].

In 1972, Ansoff slightly altered his description of managerial work by dividing management into two components: strategic and operations management. In effect, he subsumed the activities included under "administration" to the strategic component. He also reiterates that "in today's environment there is a simultaneous demand for both strategic and operations management" [1, p 2]. In describing these two types of managerial work activities, Ansoff noted some specific behaviors that are displayed by managers when they "strategically" or "operationally" manage the firm:

> While in strategic management the individual is a change seeker, risk-propensive, divergent problem-solver, skillful in leading others into new and untried directions; the operations manager is a change absorber, cautious risk taker, convergent problem-solver, skillful diagnostician, coordinator and controller of complex activities [1, p. 7].

No wonder it is not easy to strike this proper "balance" between the strategic and operations management of the firm!

Taylor followed Ansoff's delineation between strategic and operations management and suggested that the increasing complexity of the external environment accelerates the importance of strategic management [7]. Like Ansoff, he also saw a basic conflict and a decided "imbalance" between these two managerial activities. In 1973, he stated:

> The task of managing the day-to-day operation tends to get priority over the problem of adapting the organization to its changing environment. Senior management tend by personality, experience and training to prefer managing the on-going financial, production or marketing system rather than planning for the future [7, p. 35].

Taylor goes further and suggested that present management systems (i.e., annual report, production schedules) all tend to focus management attention on short run results. It normally takes a significant environmental change such as the appearance of a new technology or new government legislation to induce managers to reappraise their organization's overall strategy.

The concept that strategic managers perform different functions than operations managers was explored further by Rawls, Rawls and Radosevich [6]. They attempted to isolate characteristics which typify successful strategic managers and suggested means of identifying individuals who are likely to perform effectively in that mode. They, like Ansoff and Taylor, stated:

> It is important to emphasize that neither strategic managers nor operations managers represent an ideal, generic type; most, if not all, firms need both. However, it is probable that the greatest relative scarcity pertains to capable strategic managers [6, p. 75].

The major reasons for this predilection towards operations management are twofold. First, the vast majority of formal management educational programs are geared toward developing operations oriented managers. Taylor, Chandler and Ansoff have also suggested this [7, 3, 2]. Second, the experience acquired in most lower-level management positions is heavily oriented toward operations.

Although the functions and characteristics of these distinct modes of top management work may differ, the skills needed to do both successfully can (and do) exist within individuals. Rawls, Rawls and Radosevich commented:

> Close analysis of the two modes or styles of management that have been discussed (strategic vs. operational) indicates that strategic management and operations management are not necessarily dichotomous dimensions, but probably exist in varying degrees within a particular manager [6, p. 78].

It appears from this background information that the top management of a firm is, in fact, forced to perform simultaneously both strategic and operational functions. Previous work has provided definitions, functions and even characteristics associated with each mode of management. Most important to this study has been the "concept" that most top managers do not give proper attention to the strategic functions of their jobs. This "concept" is not based upon empirical studies but rather formulated through observations.

PURPOSE

The purpose of this study is to determine the perceived importance of the strategic functions of top management relative to the operational functions in small corporations. To this end, the study draws upon and merges concepts about the nature of top managerial work and the concept of strategic management.

Specifically, the objectives of the study are the following:

(1) to determine whether top managers do have a predilection toward operational management, as others have observed;

(2) to assess the relative importance of specific strategic and operational roles; and

(3) to determine whether the size of the firm influences the top manager in his/her perception toward the strategic and operational management of the firm.

SIGNIFICANCE OF THE STUDY

The study of strategic management should look at the top managers within an organization. Although not looking at these individuals directly, the study of the strategic management of a firm (or industry), either directly or indirectly (as is most common), should examine the top managers because they are ultimately responsible. The Chief Executive Officer (CEO) of a firm is generally regarded as the single, most important top manager in an organization [4, 5]. There have been very few empirical studies on CEOs. This fact alone makes this study significant to researchers of strategic management. Most research on CEOs has been almost exclusively of a case study nature. To make generalizable statements from case studies is, at best, a risky proposition [8]. This study should help improve our understanding of the CEO's job and should provide empirical insights as to whether CEOs do, in fact, emphasize operational functions. The preliminary answers that this study provides as it achieves its objectives should provide fruitful starting points for future studies on CEOs. Finally, the determination of the relative importance of these strategic and operational functions will provide some initial direction into future studies on strategic management.

Of significance to the practitioner will be a clearer understanding of the functions of a CEO. This would be particularly important in the evaluation, training and selection of CEOs. By understanding how a CEO perceives the relative importance of the strategic and operational functions, the more easily studies of the position of CEO can be undertaken. Insights as to whether or not CEOs emphasize operational functions will provide some tangible criteria that would be specifically helpful in the evaluation and/or training of a CEO. A clearer understanding of the importance of the relative strategic and operational demands placed upon a CEO could aid in future selections of a CEO. The more that is known of the demands placed upon a position, the better a job may be successfully matched with an individual.

This study should be of significance to those who teach strategic management since it provides some empirical insights and, therefore, means less reliance must be placed on "armchair observations." It should also enable students to better recognize the complexity of being a top manager since it will force them to recognize that top management must consider both internal (operational) as well as external (strategic) factors and must also make trade-offs between them. In fact, students may see that often it is how the CEO makes these "trade-offs" as to whether a firm is successful or not.

In summary, the strategic and operational functions of a CEO are shown to be both necessary yet often in conflict. Its necessity is dictated by the position of the CEO. Because they have the available information and the needed authority, it is up to them to guide strategically the organization. However, simply because they are responsible for the strategic management of the firm does not preclude them from operationally managing certain aspects. This study attempts to determine if in fact there is an "imbalance" between the two sets of functions. This research should provide needed insights so that firms may be better managed strategically in general and more efficient and effective CEOs may be developed in particular.

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CHAPTER II

LITERATURE REVIEW

This review of the literature will be divided into two components. First, literature that is directly related to the study of chief executive officers in organizations will be presented. Second, background information that deals with the unique (to strategic management) methodology utilized in this study will be given. Moreover, a review of two studies that used this methodology will be provided.

CEO LITERATURE REVIEW

The first and still one of the most significant empirical studies of the CEO position was conducted by Carlson [2]. He studied the work of nine Swedish directors (equivalent to the CEO in the United States) through the use of a time diary and arrived at three types of conclusions. The first set of conclusions related to working time. Carlson noted that CEOs averaged about one hour alone each day, but these "alone" periods consisted of intervals 10 to 15 minutes in duration. In addition, he found that the CEO's working load was heavy, averaging between 8.5 and 11.5 hours daily. The second set of conclusions dealt with the communication patterns of the CEO. He found that CEOs initiated far fewer letters per day

than they received and that visitors consumed 3.5 hours per day of their time. Finally, conclusions were drawn about the work content of the position of the CEO. Carlson studied three different aspects of the work content: fields of activity, questions of development and of current operations; and questions of policy and application. This was the weakest area of the research as the conclusions were very nebulous and of little substance. The problem of accurately capturing the work content of the position was most likely due to the research methodology utilized in this study. Diary studies, although useful in studying the characteristics of managerial work, have not been effective in capturing work content. In one study, Stewart commented:

> The most important conclusion that I reached was that it is impossible to design a diary of kinds of action... This conclusion imposes a very important limitation on the possible scope of analyzing manager's jobs by means of diaries, since it means that if one wants comparable results - and that surely must be the aim - one is severely restricted in analyzing what the manager does, as distinct from where, how, or with whom he does it [11, p. 224].

Hemphill conducted a study which included CEOs in 1959 [5]. From examining job descriptions and interviewing executives, he compiled an initial list of 1,500 statements describing managerial work of which he selected 575. This list of statements was evaluated by 93 executives in five large manufacturing firms. His study included three levels of management within the five firms: upper, middle and beginning management as well as across five functional

areas: research and development, sales, manufacturing, general administration and industrial relations. Hemphill performed a factor analysis which isolated ten roles that managers perform:

(1) Providing a staff service in non-operational areas;

(2) Supervision of work;

(3) Business control;

(4) Technical concerns with products and markets;

(5) Human, community and social affairs;

(6) Long-range planning;

(7) Exercise of broad power and authority;

(8) Business reputation;

(9) Personal demands; and

(10) Preservation of assets [5, p. xiii].

These ten roles were compared with the three management levels and the five functional areas. Results included the fact that upper management tended to rank highest on human, community and social affairs, long-range planning and exercise of broad power and authority. The lowest levels of management ranked highest the roles of providing a staff service in a non-operational area, supervision of work and technical concerns with products and markets.

Mintzberg's study of CEOs in 1967-68 was

> designed to focus (1) on the job rather than the man, (2) on basic similarities in manager's work rather than on differences, and (3) on the essential content of the work rather than its peripheral characteristics [6, p. 230].

He used structured observation to collect his data. Five CEOs of medium to large organizations were intensively observed for a period of one week. Mintzberg isolated six sets of work characteristics:

(1) Much work at unrelenting pace;

(2) Actively characterized by brevity, variety, and fragmentation;

(3) Preference for live action;

(4) Attraction to the verbal media;

(5) Communication patterns within his organization and external to the organization; and

(6) Blend of rights and duties [6, p. 29].

He also delineated ten working roles which were divided into three distinct groups as such:

(1) Interpersonal roles

a) Figurehead.

b) Liaison.

c) Leader.

(2) Information roles

a) Monitor.

b) Disseminator.

c) Spokesman.

(3) Decisional roles

a) Entrepreneur.

b) Disturbance handler.

c) Resource allocator.

d) Negotiator [6, p. 55].

Differences in manager's work were also noted. A contingency theory was proposed in which these variations are attributed to the job itself, its environment, the person in the job and the situation of the moment.

In 1969, Choran conducted a study of three CEOs of small companies [3]. The study paralleled Mintzberg's work and provided data that were useful in comparing chief executives of organizations of different sizes. Using structured observation for two days to collect his data, Choran concluded that the three CEOs being studied performed the ten roles and exhibited the six sets of work characteristics specified by Mintzberg. In addition, two new roles emerged in "specialist" and "substitute operator". The CEO performed the former role when he/she felt that any one function was vital to the organization's well being. The substitute operator role reflected the fact that the CEO often must be prepared to perform operating functions when needed. This is basically due to the lack of depth in small organizations.

Other differences between the management of large and small organizations emerged. CEOs of small firms performed many more activities per day. They spent less time in scheduled meetings and they were involved in more organizational activities and less ceremonial

functions. Generally, Choran found that CEOs of small firms did not assume the same importance for the "figurehead" and "liaison" roles that Mintzberg found in large organizations. Conversely, the "leader" and "information processing" roles appeared to be more important for these CEOs.

Two major differences between the CEOs of small and large firms became evident. First, in the small organization there is a marked decrease in formality. Second, CEOs of small organizations displayed an increase in the concern for internal operating issues.

Many of Choran's findings were supported by the work of Steiglitz who conducted a study of CEOs for the National Industrial Conference Board in 1969 [10]. Questionnaires were administered to 280 CEOs, of whom more than half were non-American. Sixty-one of the CEOs were from firms with more than 10,000 employees and 48 from firms with less than 3,000. Steiglitz found that the CEOs of small firms were more personally involved in short term operations oriented problems which he attributed to the fact that they lacked the staff support provided CEOs in larger firms.

A set of duties that are basically inherent to the position of a CEO was developed:

(1) Determining overall objectives and plans;

(2) Establishing priorities and allocating resources;

(3) Formulating policy;

(4) Organization and executive selection and development;

(5) Development and designation of a successor;

(6) Relationships with Boards of Directors;

(7) Key external relationships; and

(8) Control [10, p. 10].

Many CEOs reported they do not allocate their time to correspond with the importance they attached to certain activities. They also stated that workdays were extremely long and that it was difficult to separate their private and occupational lives. Ultimately Steiglitz drew a statistical profile of the group he studied.

The most recent study of CEOs was conducted by Rock in 1977 [8]. The accountabilities of the CEO and how they impact upon human resource management was the primary focus of the study. Some of the major findings were:

(1) The accountabilities charged to a CEO depend, in part, on the company's industry, size and degree of diversification.

(2) A CEO does not often reach down several organizational levels to select an individual for top management accountabilities.

(3) Although a CEO can and usually does delegate many top management accountabilities, he (she) almost never delegates the accountability for Human Resource Management.

(4) A CEO emphasizes certain responsibilities circumscribed by the accountability for Human Resources Management, depending upon the particular stage of his (her) tenure [8, p. 3].

Interview, case studies and examination of chief executive job descriptions were utilized to collect his data. He developed a conceptual framework from which an empirically based job description of the CEO in a large, diversified industrial company was created.

Previous studies have permitted the conceptualization of roles which are inherent to the position of the CEO. There is a high degree of agreement among the studies as to the roles themselves. Table 2.1 compares Mintzberg's roles with Hemphill's roles that were utilized in this study. Although these roles are not exactly consistent on a one-to-one basis, they are very similar. In fact, the sets of roles can be considered comparable.

The delineation of these working roles have provided insights into studying the job of a CEO. It has finally allowed the study of what top level managers actually do. Previously if one asked what a CEO does, the answer would probably be that a CEO plans, organizes, coordinates and controls. This desciption of the executive's job can be traced back to 1916, when Henri Fayol first described it. These "roles" provide a much clearer insight as to what executives actually do. Mintzberg commented:

> Indeed what do words such as 'coordinating' and 'planning' mean in the context of real activity? In fact, these four words do not describe management work at all, but only certain of its vague objectives. They are convenient abstractions what we use to label our ignorance of the manager's job [7, p. 21, emphasis added].

Table 2.1

Comparison of Managerial Roles
as Identified by Hemphill and Mintzberg

	Hemphill	Mintzberg
1.	Providing a Staff Service in a Non-Operational Area	Leader
2.	Supervision of Work	Leader, Monitor, Disturbance Handler
3.	Business Control	Monitor
4.	Technical Concerns with Products and Markets	Disseminator, Entrepreneur
5.	Human, Community and Social Affairs	Figurehead, Liaison, Spokesman
6.	Long-Range Planning	Resource Allocator, Leader, Entrepreneur
7.	Business Reputation	Leader, Resource Allocator
8.	Preservation of Assets	Negotiator, Monitor, Resource Allocator

SOURCES: Hemphill, J. K., Dimensions of Executive Positions, (Columbus, Ohio: Bureau of Business Research, Ohio State University, 1960).

Mintzberg, H., The Nature of Managerial Work, (New York: Harper and Row, Publishers, Inc., 1973).

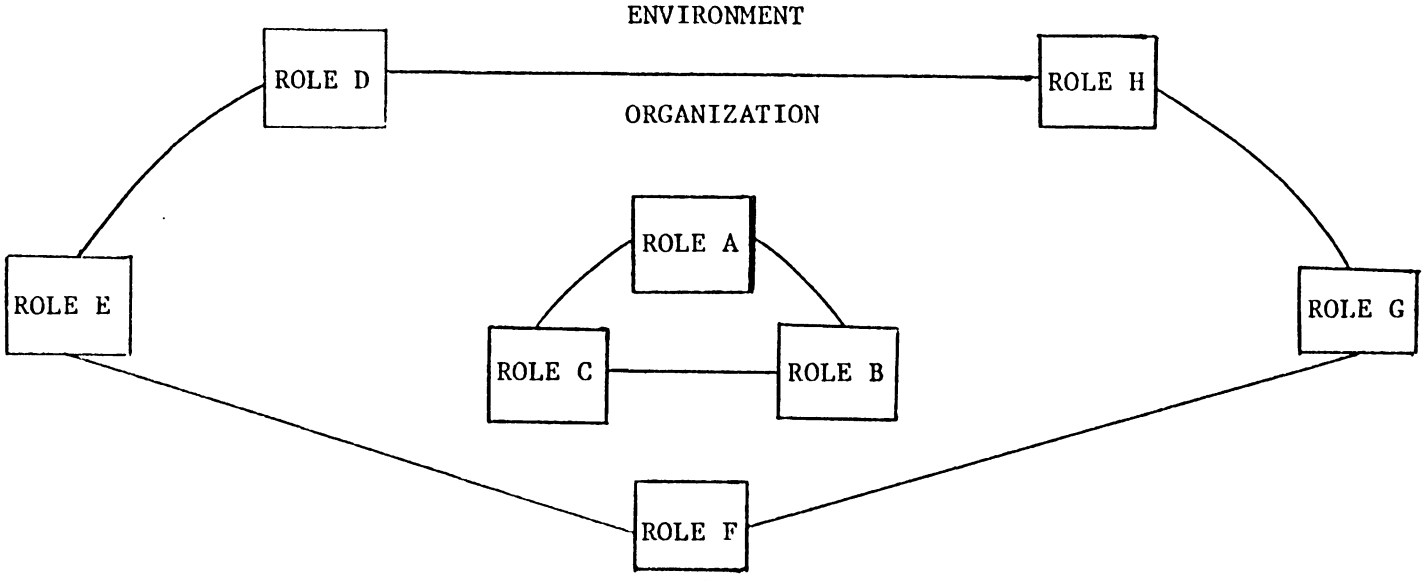
These roles have also permitted a closer look at the CEO's job and have allowed for further breakdown because some roles are strategic in nature while others are operational. Figure 2.1 shows how Hemphill's roles can be divided in such a manner.

This prior research has aided in the conceptualization of defined roles which describe an executive's job. However, the relative importance of each role remains in question. Mintzberg commented on the roles he defined, "To say that all ten roles form a gestalt is not to say that all managers give equal attention to each role" [6, p. 58]. Hopefully, this study sheds some light on this area of managerial work.

METHODOLOGY BACKGROUND

The second component of this Literature Review Section will: (a) discuss briefly some background information on the methodology utilized in this study and (b) present two examples of business related studies which have used it. This background information will demonstrate the possible application of this unique methodology to strategic management research.

In spite of its lack of usage in the business policy area, it has been utilized in over 200 studies since 1964 [4]. Topics



ROLE A: PROVIDING STAFF SERVICE IN A NON-OPERATIONAL AREA (OPERATIONAL)

ROLE B: SUPERVISION OF WORK (OPERATIONAL)

ROLE C: BUSINESS CONTROL (OPERATIONAL)

ROLE D: TECHNICAL CONCERNS WITH PRODUCT AND MARKET (STRATEGIC)

ROLE E: HUMAN, COMMUNITY AND SOCIAL AFFAIRS (STRATEGIC)

ROLE F: LONG RANGE PLANNING (STRATEGIC)

ROLE G: BUSINESS REPUTATION (STRATEGIC)

ROLE H: PRESERVATION OF ASSETS (STRATEGIC)

Figure 2.1

Framework of CEO Work Roles

have ranged from investment decision making and bank lending policies to effects of psychotherapeutic drugs and research on learning and interpersonal conflict [4, 19].

The methodology used in this study was developed in 1935 by Egon Brunswik and, not surprisingly, is called the Brunswik's Lens Model [4]. This lens model is based on two principles. One principle is the representative design of experiments, and the other is the ideographic-statistical approach. Each will be discussed briefly.

Representative Design of Experiments. Brunswik has distinguished between what he calls systematic and representative designs of experiments. In systematic experiments, variables are independently arranged (or orthogonal). "The environment is taken apart, so to speak, in order to separate various potential causes of behavior" [9, p. 2]. Since individual subjects or respondents cannot be taken apart piece by piece, they are sampled in order to generalize to those not included in the study. This problem is best described by Hammond:

> Note the asymmetry, however. Systematic arrangement has no reference to the situation toward which the generalization is intended on the environmental side, while representative sampling has the statistical logic of inference to safeguard generalization on the subject side.
>
> ... If the logic of induction is required in order to generalize from elements present to elements absent on one side, why not on the other? To require some logical defense for generalizations over subjects but none for generalization or inference over conditions is to employ a double standard [9, p.2].

Thus, the Brunswik Lens Model incorporates this representative design of experiments in favor of the systematic design to increase a study's generalizability.

Ideographic-Statistical Approach. Ideographic simply implies that each person's behavior is unique. This term is contrasted with nomothetic which implies generality. The term "ideographic-statistical" simply means that each subject or respondent's behavior must meet a statistical test of significance. This step obviously demands that a sufficient number of situations be given to each subject to perform the appropriate statistical tests. Hammond states:

> Indeed, conventional methodology often cheats; exchanging the number of subjects for the number of situations and trials and (wrongly) using this number in testing generalizations over conditions [9, p. 3].

Schematically, the Lens Model is shown in Figure 2.2 Each subject is required to make quantitative evaluations of a fairly large number of cases, each of which is defined by certain cue dimensions or characteristics. These cue dimensions must be quantifiable, if only to the extent of a 0 - 1 relationship (e.g., high vs. low, yes vs, no, etc.). The left side of the schematic contains the criterion value and $r_{e,n}$ represents the correlation between each cue and the criterion value. This criterion value is the "true state" or the correct answer and achievement represents the level of accuracy between the subject's judgment and the "true state". The right side of the schematic contains the subject's

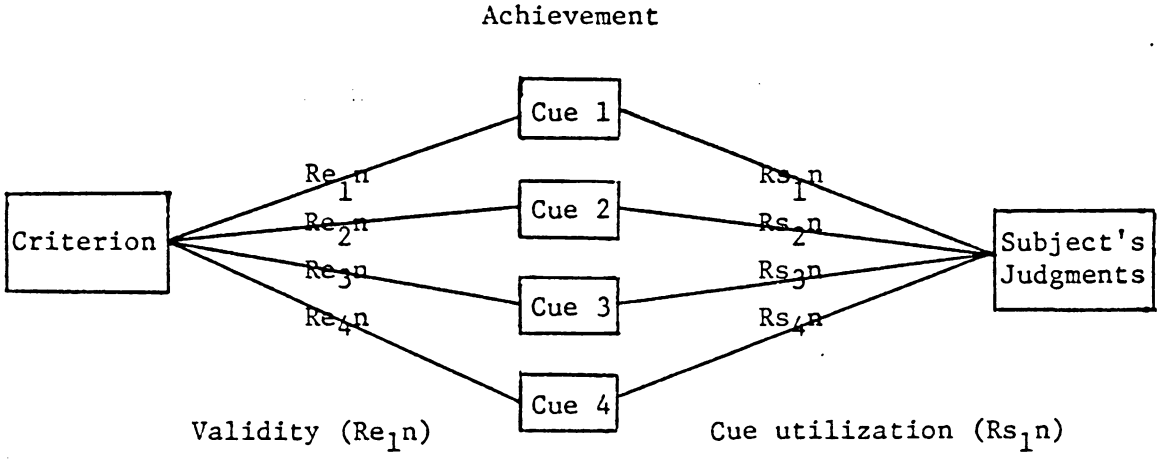


Figure 2.2

Brunswik's Lens Model

judgment based on the utilization of the cues. The term "$r_{s,n}$" represents the correlation of the subject's judgment with the i^{th} cue and can therefore be called the cue utilization coefficient.

TWO STUDIES UTILIZING BRUNSWIK'S LENS MODEL

In 1969 Slovic conducted a study of how stockbrokers rated the growth potential of 128 stocks using the Lens Model [9]. He selected two stockbrokers who evaluated the potential of the stocks based on 11 factors (e.g., past year's performance, volume, trend, etc.) taken from Standard and Poor's reports. Using analysis of variance he constructed a quantitative description of configural and non-configural cue (11 factors) utilization. That is, he rated each factor (cue) for each stockbroker by the magnitude of effect that it had on the judgment process. Each stockbroker also gave his subjective impressions of the relative importance of each of the 11 factors.

Results showed there was little agreement between the two stockbrokers with regard to the degree of importance that they placed on each of the 11 factors. On the one hand, stockbroker A ranked near term prospects, price/earnings ratio and earnings quarterly trend as the three most important factors in the judgment process. On the other hand, stockbroker B ranked earnings yearly trend, price/earnings ratio and profit margin trend as the three most important factors in the

judgment process. Configural cue usage for both stockbrokers was considered negligible. Results also indicated that Stockbroker A had a much higher correlation between the subjective impression of the factors' importance and the objective evaluation (judgments) based upon the cues.

In 1974 Ashton used analysis of variance to study cue usage, decision rule form, subjective cue usage and decision consistency and consensus of auditors' judgments and decision related to internal control [1]. The focus of the study was to judge the strength of a payroll internal control subsystem on a six point scale. The expert judges were 63 practicing auditors from four firms. Each subject was given 32 cases represented by six dichotomous indicators of internal control. The cases were constructed using a 1/2 fractional replication of a 2^6 factorial design. Six to thirteen weeks later, a second administration of the experiment was given to the same 63 subjects.

Results showed that the auditors' judgments were highly consistent for each administration and had an average coefficient of correlation of .81. The auditors also showed a great deal of judgment consensus between themselves because the average correlation between pairs of auditors' judgments was .70. Two-thirds of the subjects made significant use of at least five of the six factors. The two most important factors in the auditors' decision models dealt with separation of duties.

These two studies utilizing the Lens Model are only examples of its usage in business related research. There appears to be much potential for this methodology, particularly in the study of executive modeling, decision making and performance.

SUMMARY

The work of a Chief Executive Officer can be broken down into specific roles which can be described as being either strategic or operational in nature. The importance of these roles lies in the fact that they best describe what a manager "does". Although different researchers identified different roles, the sets of roles noted by each researcher are, in fact, very similar.

Although these sets of roles describe CEO work, not much is known of their relative importance. Prior studies appear to indicate that in small firms the operational aspects dominate. To gather data to determine the relative importance of these roles, a unique (to strategic management) methodology has been employed. This methodology is called the "Brunswik's Lens Model" and has been used in over 200 studies since 1964. In essence, a subject is required to make quantitative evaluations of a fairly large number of cases, each of which is defined by certain cue dimensions. By utilizing analysis of variance, these cue dimensions are assigned weights as to their relative importance. In this study the cue dimensions will represent

the roles utilized and, thus, the roles will have weights which show their importance relative to each other.

Although new to research in the strategic management area, this methodology appears to have much potential. In more and more business research studies it is being utilized and appears to have many applications which are still untapped.

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CHAPTER III

SOURCES AND METHODS OF INVESTIGATION

This chapter will describe the definitions, research hypotheses, methodology and data analysis utilized in this study along with background information on the firms that were used in the sample.

DEFINITIONS

This project will attempt to determine the relative importance of the managerial work roles incumbent upon CEOs in small furniture manufacturing firms. These work roles are divided into operational or strategic components. Other researchers have observed that managers have a predilection toward operational roles. This research will determine if this is true for the CEOs included in this study. This project also will determine whether the size of the firm influences the CEO in his/her perceptions toward the importance of the operational and strategic work roles. Roles are defined as "... a categorizing process, a somewhat arbitrary partitioning of the managers' activities into affinity groups" [10, p. 53]. Small furniture manufacturing firms are defined as those which have annual sales between $1 million and $25 million.

These parameters of sales were selected as the criterion for size because CEO work roles are largely dependent upon the size of the managerial and support staff [4]. Cohn and Lindberg state:

> We feel that below $1 million in sales, companies require operating skills but not a great deal of management skill. The number of employees is usually so small that pronounced organizational differentiation is rare. Above $1 million, differentiation begins to be clear and the need for a separate, distinctive administration emerges. At the $5 million level the differentiations have become almost universal and the need has become very clear indeed. The next threshold of organizational change is somewhere around $25 million because it entails the next generation of management practices -- that marks the point at which a firm moves out of the small firm category [4, p. VIII].

Ansoff, Taylor and Chandler have delineated two distinct types of management: strategic and operating management [1, 5, 2]. Rawls, Rawls and Radosevich also utilized this distinction and their definitions were used in this study [11]. They defined strategic management as being "... primarily concerned with the relationships between the firm and its environment." Strategic managers are externally oriented; they must deal with financiers, suppliers, customers and representatives of governments to develop the potential for accomplishment of the firm's objectives [11, p. 74]. Operating management is defined as "... the utilization of the potential developed by strategic management through conversion of inputs to outputs on a day-to-day routine basis." Operations managers are internally oriented; they must deal with a myriad of internal issues to put into action this potential for accomplishment [11, p. 75].

The roles to be examined in this study will be those described by Hemphill in his study of 93 executives from five large manufacturing firms [8]. His study included three levels of management within the five firms: upper, middle and beginning management. Although Hemphill's study consisted of large firms and different layers of management within those firms, the roles uncovered are appropriate for use in this study of CEOs in small manufacturing firms for three major reasons. First, CEOs of small firms do not normally have the managerial and staff support that is prevalent in larger firms [3, 4]. Therefore, CEOs appear to assume roles and responsibilities of several layers of management. Second, Hemphill's study provided concise descriptions of roles which emanated from a factor analysis of 575 descriptive role items. Finally, the resulting questionnaire was designed to study individual job positions. Hemphill stated:

> It is suggested that the revised questionnaire will serve a distinct purpose in research on the abilities or personal qualities required in executive work by making it possible to conduct studies on more homogeneous classes of positions [8, p. XIV].

Hemphill's role variables which are included in this study were defined as follows [8] (In this study, each role variable was identified as either "operating" or "strategic".):

A. Providing a staff service in non-operational areas.

Renders various staff services to supervisors: selects

employees, checks statements, gathers information and makes recommendations (operating role).

B. Supervision of work.

Plans, organizes and controls the work of others; concerned with the motivation of subordinates, efficiency of operations and the maintenance of a work force (operating role).

C. Business control.

Concerned with the maintenance of proper inventories, cost reductions, budget preparations, determination of goals and definition of supervisor responsibilities (operating role).

D. Technical concerns with products and markets.

Concerned with activities of competitors, development of new markets and assisting salesmen (strategic role).

E. Human, community and social affairs.

Participation in community affairs, maintenance of company goodwill in the community and speaking before the public (strategic role).

F. Long-range planning.

Concerned with the future of the company and is broad in nature (strategic role).

G. Business reputation.

Concerned with product quality and public relations (strategic role).

H. Preservation of assets.

Concerned with capital expenditures and preservation of company assets (strategic role).

These roles are represented on the instrument utilized in this study by specific work activities as shown by Table 3.1. Hemphill, in his study of managerial roles, isolated various work activities which describe each role through factor analysis. Those activities which had high factor loadings on each role will be used to represent that role. There are two reasons for this. First, the respondents must have a consistent frame of reference in evaluating the roles. That is, one respondent may perceive the role of "preservation of assets" differently from another respondent, thus making comparisons across the CEOs being studied more difficult. Second, the use of specific work activities precludes the respondent from being aware of the main focus of the study. In other words, the respondents will not be aware that this is a study of their perceptions as to the importance that they place on the managerial roles they perform. This should help to minimize any bias they may have toward specific roles.

These roles (work activities) have a level of ability (either excellent or poor) assigned to each which will create a hypothetical

Table 3.1

Hemphill's Managerial Work Roles
and Their Associated Work Activities

Work Role		Work Activities	
1.	Providing a staff service in a non-operational area.	A)	Selection of new employees.
		B)	Assign jobs to subordinates.
2.	Supervision of work.	A)	Trouble shoot special problems as they arise.
		B)	Plan the best use of available facilities.
3.	Business control	A)	Review of budgets for operations.
		B)	Maintenance of proper inventories.
4.	Technical concerns with products and market.	A)	Assist sales people in securing important accounts.
		B)	Anticipate new or changed demand for products.

Table 3.1 (continued)

Work Role		Work Activities
5. Human, community and Social affairs.	A)	Active in community affairs.
	B)	Promotion of company to public.
6. Long range planning.	A)	Formulation of long-run objectives for organization.
	B)	Determination of business activities to be engaged in.
7. Business reputation.	A)	Oversees delivery schedules.
	B)	Oversees the quality of company products.
8. Preservation of assets.	A)	Oversees capital expenditures.
	B)	Determines utilization of capital assets.

Source: Hemphill, J. K., Dimensions of Executive Positions, (Columbus, Ohio: Bureau of Business Research, Ohio State University, 1960).

"profile" of a CEO based on his/her abilities on each role (see Figure 3.1). The respondent will then predict the effectiveness of this hypothetical CEO, based upon this profile, on a scale from one (extremely ineffective) to nine (extremely effective). That is, the respondent evaluates the CEO profile based on the levels of ability shown for the eight types of work activities. The respondents are instructed to judge each CEO profile with regard to how well he/she would perform in their firm or similar firms.

RESEARCH HYPOTHESES

The primary thrust of this research is to investigate the importance that CEOs place upon the work roles previously ascribed to that position. The main research question to be addressed is: which work roles are perceived as more important relative to the other roles? The basic theoretical hypothesis to be tested is that certain roles will emerge as being of primary importance relative to other roles which stated in null and alternate form are:

H_0: There is no difference in the degree of perceived importance of the eight work roles.

H_A: There is a difference in the degree of perceived importance of the eight work roles.

		Work Activities	Level of Ability
1.	a)	Selection of new employees	Excellent
	b)	Assign jobs to subordinates	
2.	a)	Trouble shoot special problems as they arise	Excellent
	b)	Plan the best use of available facilities	
3.	a)	Review of budgets for operations	Poor
	b)	Maintenance of proper inventories	
4.	a)	Assist sales people in securing important accounts	Poor
	b)	Anticipate new or changed demand for products	
5.	a)	Active in community affairs	Excellent
	b)	Promotion of company to public	
6.	a)	Formulation of long-run objectives for organization	Poor
	b)	Determination of business activities to be engaged in	
7.	a)	Oversees delivery schedules	Excellent
	b)	Oversees the quality of company products	
8.	a)	Oversees capital expenditures	Poor
	b)	Determines utilization of capital assets	

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

Figure 3.1

Chief Executive Office Profile #1

It is hypothesized that operating-oriented roles will be perceived as more important than strategic-oriented roles. Thus, the operational hypotheses which flow from the theoretical hypothesis are:

H_{1a}: The operating-oriented role of providing a staff service in a non-operational area will be perceived as being significantly more important than the strategic-oriented role of technical concerns with products and markets.

H_{1b}: The operating-oriented role of providing a staff service in a non-operational area will be perceived as being significantly more important than the strategic-oriented role of human, community, and social affairs.

H_{1c}: The operating-oriented role of providing a staff service in a non-operational area will be perceived as being significantly more important than the strategic-oriented role of long-range planning.

H_{1d}: The operating-oriented role of providing a staff service in a non-operational area will be perceived as being significantly more important than the strategic-oriented role of business reputation.

H_{1e}: The operating-oriented role of providing a staff service in a non-operational area will be perceived as being significantly more important than the strategic-oriented role of preservation of assets.

H_{2a}: The operating-oriented role of supervision of work will be perceived as being significantly more important than the strategic-oriented role of technical concerns with products and markets.

H_{2b}: The operating-oriented role of supervision of work will be perceived as being significantly more important than the strategic-oriented role of human, community and social affairs.

H_{2c}: The operating-oriented role of supervision of work will be perceived as being significantly more important than the strategic-oriented role of long-range planning.

H_{2d}: The operating-oriented role of supervision of work will be perceived as being significantly more important than the strategic-oriented role of business reputation.

H_{2e}: The operating-oriented role of supervision of work will be perceived as being significantly more important than the strategic-oriented role of preservation of assets.

H_{3a}: The operating-oriented role of business control will be perceived as being significantly more important than the strategic-oriented role of technical concerns with products and markets.

H_{3b}: The operating-oriented role of business control will be perceived as being significantly more important than the strategic-oriented role of human, community and social affairs.

H_{3c}: The operating-oriented role of business control will be perceived as being significantly more important than the strategic-oriented role of long-range planning.

H_{3d}: The operating-oriented role of business control will be perceived as being significantly more important than the strategic-oriented role of business reputation.

H_{3e}: The operating-oriented role of business control will be perceived as being significantly more important than the strategic-oriented role of preservation of assets.

These operational hypotheses were set up to test statistically whether operational-oriented roles are more important than strategic-oriented roles. Prior research has indicated that CEOs do, in fact, perceive operational roles to be of paramount importance [1, 3, 4, 8, 15]. Thus, each of the three operational roles will be tested against each of the five strategic roles.

The testing of these operational hypotheses will also aid in the determination of the relative importance of all eight work roles.

Therefore, it will also be possible to answer the basic research question.

METHODOLOGY

The primary thrust of this research centers on the judgment of CEOs as to their perception of the relative importance of the work roles previously identified with their position. Do CEOs place more importance on operational roles relative to strategic roles? Various methods exist to uncover such information, ranging from intensive case studies to simplistic approaches in which the incumbent is asked to rank the importance of the various roles. However, another approach which has proven to be effective in modeling the judgment of decision makers is called "Brunswik's Lens Model"[6]. This "lens model" approach provides a quantified, descriptive summary of the way an individual weighs and combines information [6, 12]. In essence, it provides a mathematical analysis of the decision maker. Basically, the decision makers evaluate a large number of profiles or cases based upon the same set of cues. In this study, the decision makers are the CEOs and the cues will be the eight roles previously described. The judgment of the CEOs is the dependent variable and the eight work roles are the independent variables in the model. Each CEO in the study was presented with 36 profiles describing a hypothetical CEO based on his/her abilities to handle each of the eight roles. That is, each CEO profile included the eight roles

and a corresponding level of ability, excellent or poor. These dimensions were chosen since they best describe ability levels with a minimum of ambiguity. By varying the combinations of excellent and poor, it was possible to determine the relative weights of importance that each CEO places on each role. This "lens model" design utilizes an ideographic-statistical approach to significance testing. Hammond stated:

> Brunswik uses the term ideographic-statistical to indicate that each person's behavior should meet a statistical test of regularity or dependability before the behavioral data can be defined as a function of situational variables. Ideographic-statistical therefore means that significance tests should be applied to each subject's behavior [6, p. 3].

The judgments of the CEOs pertaining to the importance of each role is assumed to be captured most effectively in a linear model. On this topic Slovic stated:

> Researchers interested in simulating financial and managerial decisions have independently discovered the value of linear models ... Psychologists have found linear models to be remarkably successful in predicting judgments of such diverse phenomena as psychiatric diagnoses, job performance ... [13, p. 785].

Slovic and Lichtenstein also add, "As we shall see, the linear model does a remarkably good job of predicting human judgments" [14, p. 659].

Finally, Kerlinger commented:

> In most studies using factorial designs, the main effects are probably of most interest. Interactions... for the most part seem not to be significant [9, p. 256].

The research design to be utilized in this study is a fixed-effect 2^8 factorial ANOVA. Each of the eight roles will be described in terms of two levels: excellent or poor. A one-eighth fracticnal replication design is used instead of a completely crossed factorial arrangement. A completely crossed factorial design would involve using 256 CEO profiles that each subject would make judgments on. This was not deemed desirable or even feasible, primarily for three reasons. First, it has been shown that a subject's concentration would drift and that it would be highly unlikely that anyone could effectively (or reliably) make 256 such judgments [5, 9]. Second, the time it would take to complete such an undertaking would be prohibitive to the subjects of this study. This study is using CEOs as its subjects (not students on a campus). To them, time is extremely important. Finally, as Cochran and Cox stated:

> ... Fractional factorial designs have the advantage of allowing five or more [this study includes eight] factors to be included simultaneously in an experiment of practicable size, so that the investigator can discover quickly which factors have an important effect... [5, p. 244].

This fractional replication design produced a set of thirty-two hypothetical CEO profiles. In addition to these original profiles, repeated measures will be taken on four of the profiles in order to assess each subject's intra-judge reliability. Therefore, each subject will make 36 judgments in all (see Appendix B for the set of profiles). This set of profiles was given to ten CEOs of furniture manufacturing firms in Virginia selected from the Directory of Virginia Manufacturers (1980 Edition).

DATA ANALYSIS

Two basic analytical techniques were utilized in this study: correlation and ANOVA. The correlation analyses employed are the Pearson Product Moment correlation coefficient and pairwise correlations. This correlation analysis permitted an assessment of the CEO's judgment reliability (the degree to which the CEO produced the same judgment given repeated administrations of a single profile) and judgment consensus (the degree to which different CEOs produced the same judgment on a single profile). First, individual correlations were computed between the original CEO profiles and the repetitions for the four repeated profiles for each CEO included in the study. These were tested for significance through the use of t-tests. These calculations and tests of significance assessed the intra-judge reliability or judgment consistency. The level of significance was set at .10 for two reasons. First, the exploratory nature of the research precludes using prior evidence that would justify setting a lower alpha level. Second, there is no reason to assume that a Type I error is more noxious than a Type II error. On this topic Hays and Winkler have stated:

> In other words, the conventional practice of setting alpha at some very small level is based on the notion that one kind of error is extremely important and must be avoided if possible. This is quite reasonable in some contexts, such as the study of the safety of a new medicine or the guilt of an accused man. On the other

> hand, in many situations, there is no basis for assuming that one error is much more serious than the other [7, p. 255].

Judgment consensus was assessed by calculating pairwise correlations over the 32 primary profiles for all pairs of subjects. Once again the alpha level was set at .10 for the reasons given above. The results of this correlation analysis are summarized and displayed in a table such as shown by Table 3.2.

To measure the influence of each role, an ANOVA was performed on each CEO's response. This technique is used because of its ability to describe linear aspects of the judgment process [9, 14]. In addition, within the framework of the model, it is possible to calculate two indices of importance of individual use of a factor relative to other factors. One is the standard calculation of the magnitude of the effect, based upon the degree to which the mean judgment shifted as the levels of a factor varied. A second index, omega (ω) is a function of the squared magnitudes of effect (ω^2) gives the proportion of variance accounted for in the dependent variable when the independent variables are qualitative. This index provides an estimate of the proportion of the total variance in a subject's judgments that can be attributed to a particular main effect (see Table 3.3).

Table 3.2

Inter-Judge Correlation Coefficients for the 10 Chief Executive Officers Over the 32 Original Profiles

CEO#	1	2	3	...	10
1	r_{11}				
2	r_{21}	r_{22}			
3	r_{31}	r_{32}	r_{33}		
.	.	.	.	...	
.	.	.	.	...	
.	.	.	.	...	
10	r_{101}	r_{102}	r_{103}	...	r_{1010}

Table 3.3

The Relative Importance of the Eight Work Roles for Chief Executive Officer #1 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	ω^{2}(+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent					
B	Poor	Excellent					
C	Poor	Excellent					
D	Poor	Excellent					
E	Poor	Excellent					
F	Poor	Excellent					
G	Poor	Excellent					
H	Poor	Excellent					

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$

The operational hypotheses H_{1a} through H_{3e} were tested for significance by the use of F-tests. This was performed on each of the 10 CEOs included in the study. The level of significance was set at .10 for reasons given previously.

BACKGROUND INFORMATION

The sample of firms used in this study consisted of ten furniture manufacturing firms who are located in the State of Virginia. Each is listed in the 1980 Edition of the Virginia Directory of Manufacturers under Standard Industrial Classifications #2511, wood household furniture, except upholstered, and #2512, wood household furniture, upholstered. Although not included in the sample, the president of the Southern Furniture Manufacturing Association, Mr. Douglas Brackett, was visited to provide pertinent background information on the furniture industry. Other industry information was provided by Mr. Jerry Epperson, who is a security analyst for Wheat First Securities, and who is a specialist in analyzing the furniture industry. The information and data collection took place from July 21, 1980 to August 20, 1980.

Each CEO of the firms included in the sample was contacted by an introductory letter or via a phone call. Dates and times for personal visits were then set up. Each CEO was then interviewed and the data collection instrument was completed in the author's presence. The

completion of the instrument took approximately one hour and the visits lasted from about three hours at a minimum to approximately seven hours at a maximum. Due to the time constraints on some of the CEOs, only the basic and necessary information could be collected. Other visits lasted almost all day and included factory tours, informal talks with other top management and a chance to observe the CEO in his/her work environment. A brief description of the firms and CEOs included in the sample are presented in Appendix A.

SUMMARY

This chapter contains a statement of operational definitions, research hypotheses, methodology and data analysis. The concepts of strategic and operational management are explained in detail. The instrument used to collect the data is explained also.

The null and alternative hypotheses are stated, and supporting theory is presented. Fifteen operational hypotheses were generated and divided into three groups. In essence, each "group" of hypotheses tested whether a specific operational role was significantly more important than any of the five strategically oriented roles.

To "capture" the judgment of the CEOs, an approach called "Brunswik's Lens Model" is utilized. This "Lens Model" approach provides a quantified, descriptive summary of the way an individual weighs and combines information. Thus, it is possible to determine the importance

that each CEO places on the eight work roles. The research design utilized is a fixed-effect 2^8 factorial ANOVA. A one-eighth fractional replication is used instead of a completely crossed factorial arrangement. Along with ANOVA, correlation analyses were performed to assess the judgment reliability and judgment consensus. The level of significance was set at .10.

Each of the ten CEOs included in the study was interviewed, and each completed the data collection instrument in the author's presence. This involved making 36 judgments as to the predicted effectiveness of hypothetical CEO profiles constructed by varying the combinations of the level of ability assigned to each of the eight work roles. Visits ranged from one hour to seven hours in duration.

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CHAPTER IV

RESULTS OF THE STUDY

This chapter contains a discussion of the correlation analyses including CEO judgement reliability and judgment consensus. Each CEO interviewed will be discussed individually as well as the ANOVA that was performed on each CEO's set of responses. Finally, the results of the significance tests on the hypotheses generated will be discussed.

CEO JUDGMENT RELIABILITY

To assess the intra-judge reliability (or consistency) for each subject, four repeat profiles were included in the total set of 36 profiles given to each CEO studied. A Pearson Product Moment correlation coefficient was calculated for each subject and an a priori level of significance of .10 (for reasons stated in Chapter III) was selected (see Table 4.1). Since these correlation coefficients were based on a sample of only four observations (N=4), slight deviations in one or more paired responses could markedly affect the significance level. Five of the 10 CEOs had correlation coefficients that were not significant at the .10 level.

On the definition and measurement of reliability, Kerlinger stated:

> It is possible to approach the definition of reliability in three ways. One approach is epitomized by the question: If we measure the same set of objects again and again (as was done in this study) with the same measuring instrument,

TABLE 4.1

Intra-Judge Reliability Correlation Coefficients for 10 Chief Executive Officers Based on Four Repeated Profiles

CEO Number	r
1	.85**
2	.95*
3	.52**
4	.90*
5	.98*
6	.30**
7	-.24**
8	0.00**
9	.92*
10	.96*

*Significant at .10 level

**See Table 4.2 for actual results and absolute differences between original and repeat profiles.

> will we get the same or similar results. This question implies a definition of reliability in stability, dependability, predictability terms... Reliability is the accuracy or precision of a measuring instrument [4, p. 443].

The error variance of the measuring instrument is the important index for reliability. The absolute differences (or variance) between the original and repeat profiles can be used to judge the reliability of an instrument [4]. Table 4.2 shows responses to the original and repeat profiles for those CEOs whose correlation coefficients were not significant at the .10 level. The five CEOs, while not achieving the .10 significance level for reliability, did indeed respond in a very consistent manner. While three of the CEOs had an absolute difference of three, two had an absolute difference of five. Since the scale went from one to nine and there were four paired responses, these small absolute differences do not invalidate the reliability of the instrument utilized.

DISCUSSION OF ANOVA RESULTS AND HYPOTHESES TESTING

The operational hypotheses were tested for significance and ANOVA was performed on the data set for each of the CEOs included in the study. To conduct the ANOVA, the predicted effectiveness variable was divided into three groups to represent extremely effective, average effectiveness and extremely ineffective performance. These dimensions were listed on the original instrument. This trichotomizing technique was justified because a variable such as predicted effectiveness is viewed more as an ordinal variable

Table 4.2

Actual Results and Absolute Differences Between Original and Repeat Profiles for Those Chief Executive Officers Whose Correlation Coefficients Were Not Significant at the .10 Level

CEO Number	Original Profile Score	Repeat Profile Score	Total Absolute Difference
1	3 5 4 4	2 4 3 4	3
3	6 6 4 6	5 7 5 6	3
6	4 5 5 4	3 4 5 5	3
7	4 5 3 4	2 5 6 4	5
8	7 5 3 5	4 6 4 5	5

vis-a-vis continuous variable [4]. Furthermore, it was believed that this instrument was not so refined as to measure small distinctions. Therefore, categories rather than continuous data were discussed in examining this variable. These results plus discussion of other pertinent information obtained in the interviews will be presented here.

Chief Executive Officer #1

This CEO has spent his whole working life (35 years) in the furniture industry and has been CEO for the past 19 years. The firm had 1979 sales of $20 million and had 400 employees of which 30 are considered management (above first line supervisors). Table 4.3 and Figure 4.1 present the results of the analysis for this CEO.

CEO 1 exhibited four significant ($p<.10$) effects. Their ranking, magnitude of effect (based upon the degree to which the mean judgment shifted as the levels of a factor varied), and proportion of variance accounted for (ω^2) are shown in Table 4.4.

Thus, 46.8 percent of the variance in the rating by this CEO can be accounted for by these four roles. The remaining four roles combined accounted for only 7 percent of the total variance explained by the model. The first three significant roles ("preservation of assets," "long range planning" and "technical concern with products and markets") are strategically oriented roles and the fourth ("providing a staff service in a non-operational area") is an operationally oriented role. The negative magnitude of effect on the fourth role is due to the fact that the mean judgment shifted from

Table 4.3

The Relative Importance of the Eight Work Roles for Chief Executive Officer # 1 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role (+)	Level Description		Judgment Mean		Magnitude of Effect (++)	Mean Square	ω^2 (+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.687	1.312	-.375	1.125**	.124
B	Poor	Excellent	1.588	1.400	-.188	.282	.020
C	Poor	Excellent	1.562	1.437	-.125	.125	.001
D	Poor	Excellent	1.307	1.631	.324	.809*	.085
E	Poor	Excellent	1.642	1.388	-.254	.507	.048
F	Poor	Excellent	1.333	1.714	.381	1.142**	.126
G	Poor	Excellent	1.571	1.444	-.127	.126	.001
H	Poor	Excellent	1.350	1.750	.400	1.200**	.133

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

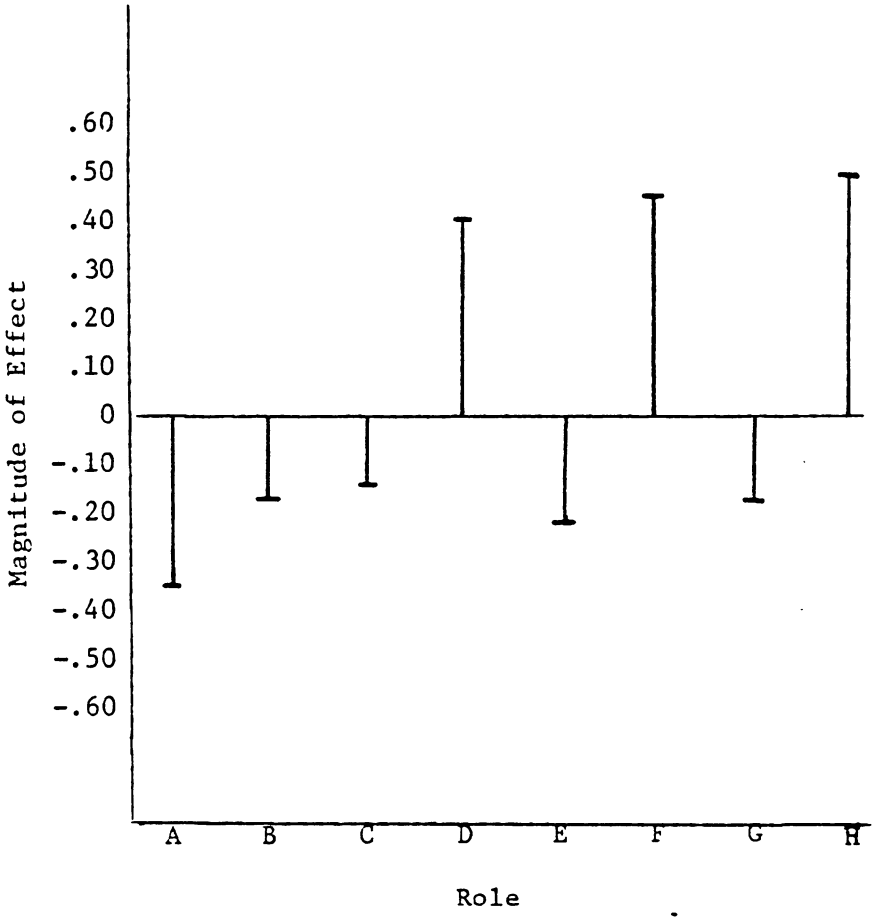
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.1
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer #1

Table 4.4

Work Roles with Significant Effects
for Chief Executive Officer #1

	Role	Magnitude of Effect	ω^2
1.	Preservation of Assets(s)	.400	13.3%
2.	Long Range Planning(s)	.381	12.6%
3.	Technical Concerns with Products and Market(s)	.324	8.5%
4.	Providing a Staff Service in a Non-Operational Area(o)	-.375	12.4%
			46.8%

1.687 to 1.312 when the level of that factor went from poor to excellent. In essence, this means that this role is in fact the least important role of the eight. These results are not consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6]. In fact, these results clearly support the contention that strategically oriented roles are perceived as the most important roles for the CEO of this small firm. The negative magnitude of effect of the one significant operationally oriented role also supports this contention because this CEO perceives this operationally oriented role as the least important role.

For CEO 1, the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 5.71 which was significant at the .0005 level. Table 4.5 displays a summary of the 15 operational hypotheses. None of the three operationally oriented hypotheses were perceived by CEO 1 as being significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

One possible explanation for this CEO's emphasis on strategically oriented roles may be that he has 30 employees who were considered management (above the level of first line supervisor) out of a total of 400 employees. Thus there appears to be sufficient management depth available to monitor and maintain the operational activities of

Table 4.5

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer #1

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

the firm while allowing the CEO to concentrate on the strategic activities of the firm. Another possible explanation may lie in the fact that this person has been the CEO for 19 years and is therefore far removed from his prior positions (e.g., time study engineer, purchasing manager) which required an operational orientation.

CEO 1 made numerous comments during the interview pertaining to the working roles and other activities within the firm. There was a definite perception that activities related to the financial operation of the firm are the most important which also agrees with the results from the statistical analysis of the data collected. Some of the comments on the topic were:

> All CEOs should never relinquish their review and disposition of capital assets.
>
> A CEO should oversee all types of expenses and not just capital expenditures.
>
> A CEO must be aware of and pay proper attention to the control of working capital. Collection periods and cash flows must be reviewed periodically. The financial area is extremely important to a CEO.

This CEO also expressed his thoughts about his own decision making process. Short-term and/or operationally oriented decisions are mostly made on an intuitive basis with little or no use of "formal" decision making techniques (i.e., EOQ modeling, etc.). This is consistent with prior findings as to how CEOs manage small firms [1,5]. A typical comment on this topic is:

> To run this business you don't need "systems," you need a "feel in the pants." Most decisions can be made on gut feelings which are generated from experience. Very few decisions come your way which aren't weighted heavily

> one way or another. Other decisions delegated to immediate subordinates to let them improve their own "gut" feelings. I want to make as few decisions as possible.

However, long-term planning and decision making are viewed much differently. CEO 1 feels that such decisions often need a more "formalized" decision making approach. This is consistent with the results generated from the CEO's responses to the instrument utilized in the study since long range planning is perceived to be the second most important role that a CEO plays. On the subject of selecting a replacement for a top management position (certainly a "typical" long range decision) this CEO states:

> To select a new CEO or other top level managers I would go through a time consuming and costly procedure utilizing a management consultant firm to select the best person for the position. Such long term decisions are not made on the 'gut' or 'intuitive' level.

Overall, it is clear that CEO 1 does perceive a significant difference in the importance of four of the eight working roles. Moreover, there is much more importance placed on the value of strategically oriented roles relative to operationally oriented roles. This finding contradicts prior statements that CEOs of small firms find operationally oriented roles most important in the management of the firm.

Chief Executive Officer #2

This CEO has spent his whole working life (12 years full time and 10 years part time) in the furniture industry and has been the CEO for the past five years. The firm had 1979 sales of $4.5 million and had 120 employees of which five are considered management (above first

line supervisors). Table 4.6 and Figure 4.2 present the results of the analysis of this CEO.

CEO 2 exhibited four significant ($p<.10$) effects. Their ranking, magnitude of effect and proportion of variance accounted for (ω^2), are shown in Table 4.7. Thus, 53.7 percent of the variance in the rating by this CEO can be accounted for by these four roles. The remaining four roles combined accounted for only .4 percent of the total variance explained by the model. With the exception of "preservation of assets" which is a strategically oriented role, this CEO places most importance on the operationally oriented working roles. Although only one, "business control" was significant, the other two operationally oriented roles ("providing a staff service in a non-operational area" and "supervision of work") had magnitudes of effect in a positive direction. This means that as the level of those factors went from poor to excellent, the judgment means increased in a positive manner. These results are generally consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6].

For CEO 2 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 5.42 which was significant at the .0007 level. Table 4.8 displays a summary of the 15 operational hypotheses. Of the three operational roles, "business control" was found to be significantly more important than "technical concerns with products and markets,"

Table 4.6

The Relative Importance of the Eight Work Roles for Chief Executive Officer # 2 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role (+)	Level Description		Judgment Mean		Magnitude of Effect (++)	Mean Square	ω^2 (+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	2.062	2.187	.125	.125	.000
B	Poor	Excellent	2.117	2.133	.016	.002	.000
C	Poor	Excellent	1.937	2.312	.375	1.125*	.081
D	Poor	Excellent	2.307	2.000	-.307	.730*	.047
E	Poor	Excellent	2.500	1.833	-.667	3.500**	.285
F	Poor	Excellent	2.055	2.214	.159	.198	.002
G	Poor	Excellent	2.214	2.055	-.159	.198	.002
H	Poor	Excellent	1.950	2.416	.466	1.633**	.124

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

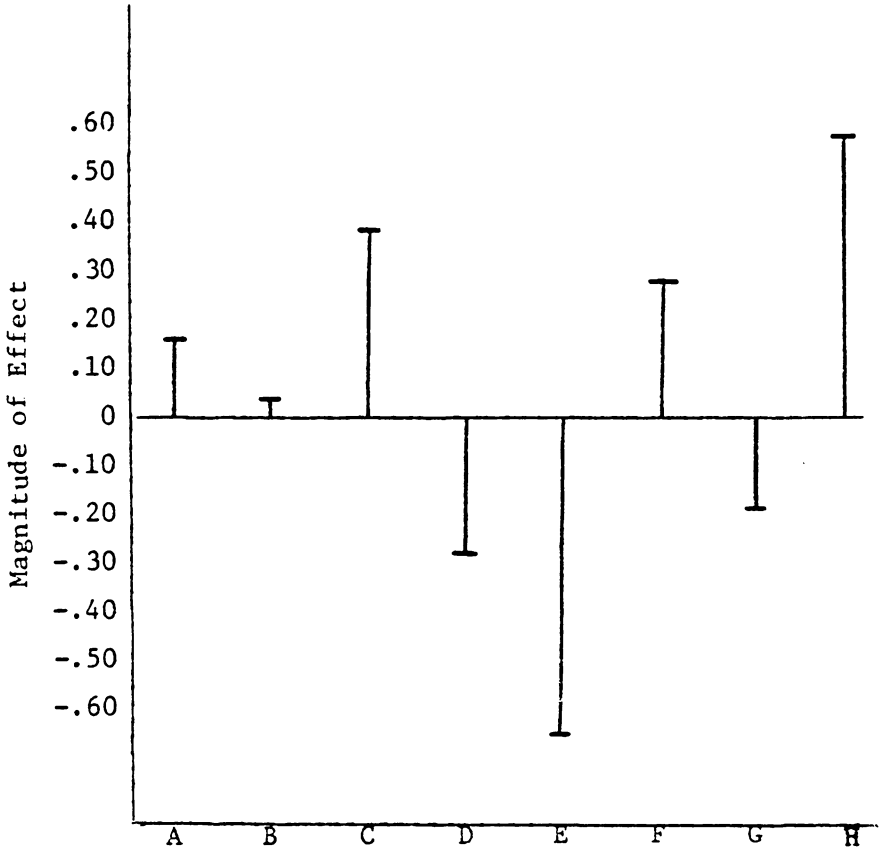
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.2
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer #2

Table 4.7

Work Roles with Significant Effects
for Chief Executive Officer #2

	Role	Magnitude of Effect	ω^2
1.	Preservation of Assets(s)	.466	12.4%
2.	Business Control(o)	.375	8.1%
3.	Technical Concerns With Products and Markets(s)	-.307	4.7%
4.	Human, Community and Social Affairs(s)	-.667	28.5%
			53.7%

Table 4.8

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer #2

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)	X	
H_{3b}: Human, community and social affairs(s)	X	
H_{3c}: Long range planning(s)	X	
H_{3d}: Business reputation(s)	X	
H_{3e}: Preservation of assets(s)		X

"human, community and social affairs" "business reputation" and "long range planning." Thus, the operational hypotheses H_{3a}, H_{3b}, H_{3c} and H_{3d} were accepted.

One possible explanation for this emphasis on operationally oriented roles (particularly "business control") could lie in the fact that this CEO had only five individuals in the organization (out of 120) who held positions above the level of first line supervisor. This relative lack of management depth may help explain why this CEO places such importance on operationally oriented roles. Cohn and Lindberg had stated that this is a major reason why top managers of small firms do not (and cannot) place proper emphasis on strategically oriented roles [2].

Another potential explanation for this emphasis on operationally oriented roles could be that this CEO has only been in this position for four years. Thus this individual is not that far removed from his prior positions within the firm (e.g., vice president production, general manager) which dictated a heavy operational orientation. This explanation is given further support because this person was unexpectedly appointed CEO when the former CEO was killed in a plane crash.

During the interview this CEO stated that the five employees considered "management" have helped him considerably since becoming CEO four years ago. In fact, these five employees have a total of 122 years experience with this firm. Although CEO 2 indicated that this allows him to concentrate more on strategic activities, it appears that their influence is having the opposite effect. His reliance on them

narrows his perspective and appears to hinder this CEO in his attempt to manage the firm.

CEO 2 sees "coordination between family and management" as an extremely important (and time consuming) aspect of his job. Government regulations and paperwork are a big problem because of the time it takes away from himself or his management team. Of the 45-50 hours worked per week, less than 10 percent is spent out of the office. This appears to be consistent with his operational orientation.

Chief Executive Officer #3

This CEO has spent 30 years (complete working life) working in the furniture industry and has been CEO for the past ten years. The firm had 1979 sales of $350,000 (smallest firm included in study) and employed 18 people of which one is considered management (above level of first line supervisor). Table 4.9 and Figure 4.3 present the results of the analysis of this CEO.

CEO 3 exhibited six significant ($p < .10$) effects. Their ranking, magnitude of effect and proportion of variance accounted for (ω^2) are presented in Table 4.10. Thus 53 percent of the variance in the rating by this CEO can be accounted for by these six roles. The remaining two roles combined accounted for only .2 percent of the total variance explained by the model.

Clearly this CEO places most importance on "preservation of assets," "business reputation" and "long range planning" which are all strategic roles. In fact, all three of the operationally oriented roles had negative magnitudes of effect (two of three significant) which means

Table 4.9

The Relative Importance of the Eight Work Roles for Chief Executive Officer # 3 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	ω^{2}(+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	2.125	2.000	-.125	.125	.002
B	Poor	Excellent	2.176	1.933	-.243	.471*	.045
C	Poor	Excellent	2.187	1.937	-.250	.500*	.049
D	Poor	Excellent	2.076	2.052	-.024	.004	.000
E	Poor	Excellent	2.285	1.888	-.397	1.240**	.142
F	Poor	Excellent	1.944	2.214	.270	.573*	.058
G	Poor	Excellent	1.857	2.222	.365	1.049**	.118
H	Poor	Excellent	1.9000	2.333	.433	1.408**	.125

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

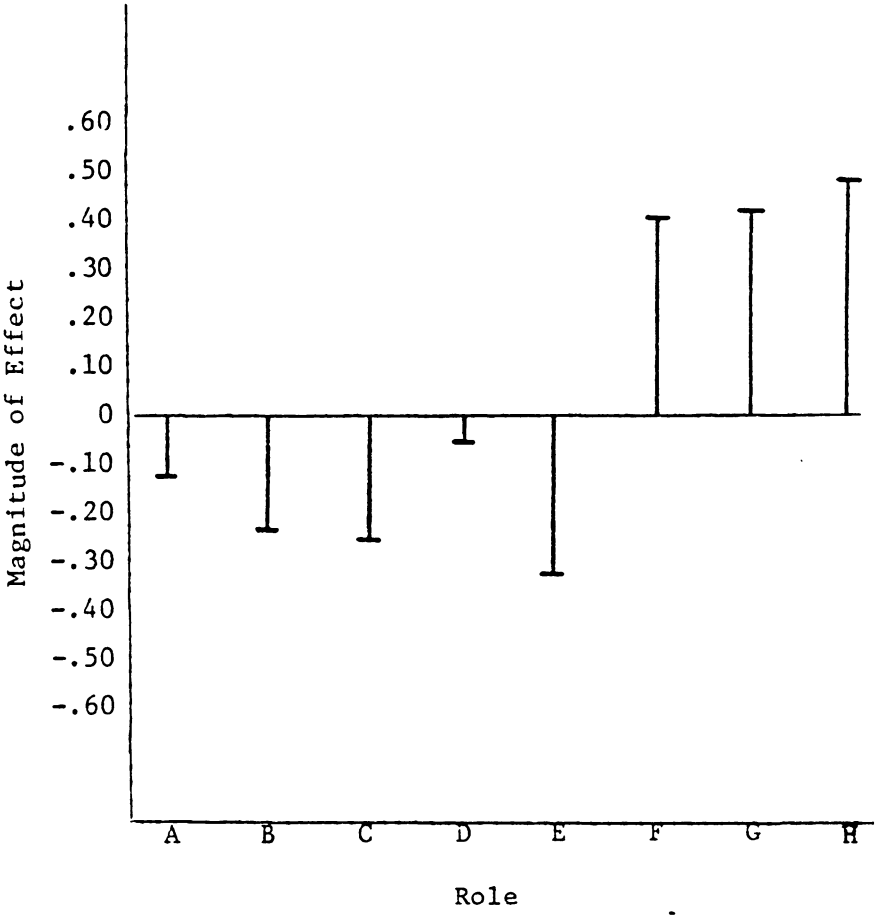
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.3
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer # 3

Table 4.10

Work Roles with Significant Effects
for Chief Executive Officer #3

Role	Magnitude of Effect	ω^2
1. Preservation of Assets(s)	.433	12.5%
2. Business Reputation(s)	.365	11.8%
3. Long Range Planning(s)	.270	5.8%
4. Supervision of Work(o)	-.243	4.5%
5. Business Control(o)	-.250	4.9%
6. Human, Community and Social Affairs(s)	-.397	14.2%
		53.7%

that they had little, if any, relative importance. That is, as the level of ability shifted from poor to excellent on these roles, the magnitude of effect decreased. These results are not consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6]. Moreover, these results clearly support the contention that strategically oriented roles are perceived as the most important roles for the CEO of this small firm. The two significant and the one non-significant negative magnitudes of effect for the three operational roles also support this contention.

For CEO 3 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 6.17 which was significant at the .0003 level. Table 4.11 displays a summary of the 15 operational hypotheses. None of the three operational roles were perceived by CEO 3 as being significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

Although this CEO indicated a significant preference toward strategically oriented roles as being of primary importance, he did make a comment which contradicted this. He stated:

> The roles "providing a staff service in a non-operational area," "supervision of work," "business control" and "business reputation" are the most important roles and represent the 'ideal' CEO.

The first three roles mentioned are all operationally oriented roles. However, the analysis of variance showed negative magnitudes of effect

Table 4.11

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer # 3

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

for these roles which indicates that the mean judgment shifted in a negative direction when the levels of those factors went from poor to excellent. Therefore, there is an obvious conflict between what he "says" and what his responses "say."

This obvious contradiction as to which roles this CEO feels are most important may be explained by the fact that he answered the instrument in a manner in which he thought a CEO "should" respond. His contradictory comment came hours after completing the instrument and could be a more accurate indication of how this CEO actually runs his firm. Therefore, his candid comment is consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles, but the analysis of variance of his responses to the instrument does not [1,2,3,5,6].

Chief Executive Officer #4

This CEO spent 32 years (complete working life) working in this firm in the furniture industry and has been CEO for the past 15 years. The firm had 1979 sales of $71 million and employed 1200 people of which 50 are above the level of first line supervisor. This organization has eight plants and is the largest firm included in the study. Table 4.12 and Figure 4.4 present the results of the analysis of this CEO.

CEO 4 exhibited seven significant ($p < .10$) effects. Their ranking, magnitude of effect and proportion of variance accounted for (ω^2) are presented in Table 4.13. This 89.9 percent of the variance in the

Table 4.12

The Relative Importance of the Eight Work Roles for Chief Executive Officer #4 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role (+)	Level Description		Judgment Mean		Magnitude of Effect (++)	Mean Square	ω^2 (+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.687	2.062	.375	1.125**	.094
B	Poor	Excellent	1.588	2.200	.612	2.982**	.255
C	Poor	Excellent	2.125	1.625	-.500	2.000**	.170
D	Poor	Excellent	1.692	2.000	.308	.730**	.060
E	Poor	Excellent	1.928	1.833	-.095	.071	.003
F	Poor	Excellent	1.777	2.000	.223	.388**	.030
G	Poor	Excellent	2.142	1.666	-.476	1.785**	.152
H	Poor	Excellent	2.050	1.583	-.467	1.633**	.138

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

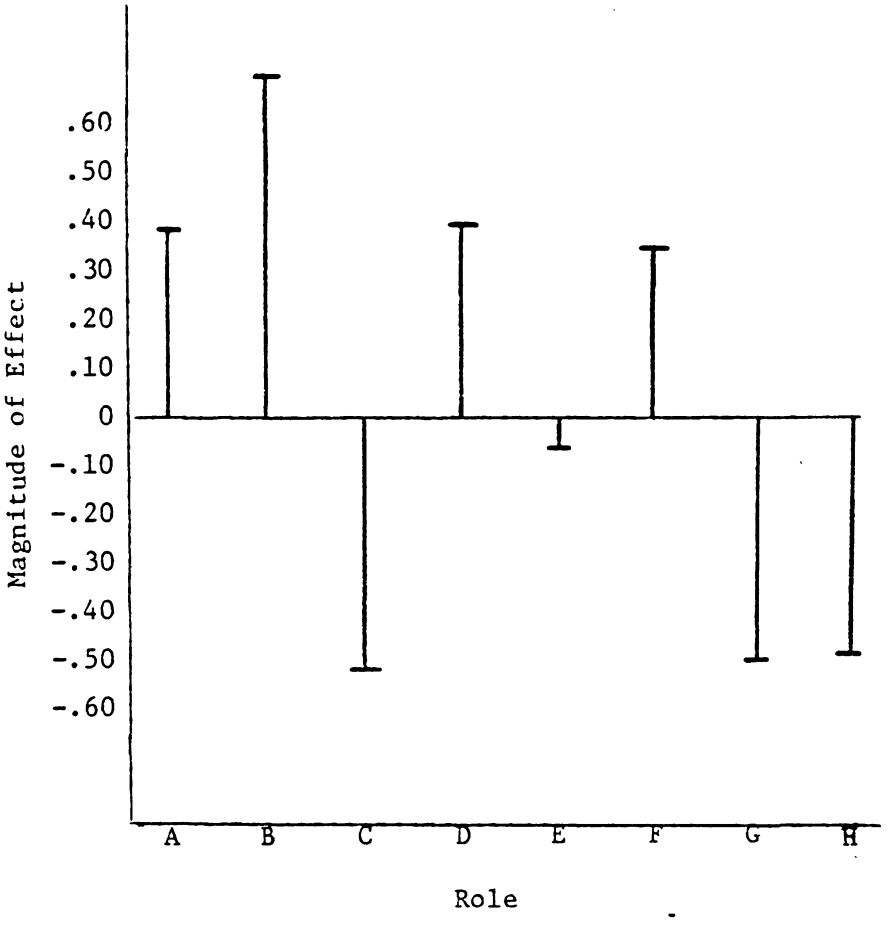
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.4
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer #4

Table 4.13

Work Roles with Significant Effects
for Chief Executive Officer # 4

Role	Magnitude of Effect	ω^2
1. Supervision of Work(o)	.612	25.5%
2. Providing a Staff Service in a Non-Operational Area(o)	.375	9.4%
3. Technical Concerns with Products and Markets(s)	.308	6.0%
4. Long Range Planning(s)	.223	3.0%
5. Preservation of Assets(s)	-.467	13.8%
6. Business Reputation(s)	-.476	15.2%
7. Business Control(o)	-.500	17.0%
		89.9%

rating by this CEO can be accounted for by these seven roles. The remaining role accounted for only .003 percent of the total variance explained by the model.

This CEO places primary importance on the operationally oriented roles of a CEO. Thie first two rankings "supervision of work" and "providing a staff service in a non-operational area" are both operationally oriented roles. Moreover, two strategically oriented roles " technical concerns with products and markets" and "long range planning" are also deemed relatively important. These results are not generally consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms while strategically oriented roles are more important to CEOs of large firms [1,2,3,5,6]. Since this firm must be considered a large firm by virtue of its 1979 annual sales of $71 million, it would be expected that strategically oriented roles would be perceived as more important.

Overall, this CEO feels that these four roles dominate his job. Three of the other four roles had negative magnitudes of effect meaning that they were the least important roles. The other role had non-significant results.

For CEO 4 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 39.38 which is significant at the .0001 level. Table 4.14 displays a summary of the 15 operational hypotheses. Two of three operationally oriented roles, "supervision of work" and "providing a staff service in a non-operational area" were significantly more im-

Table 4.14

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer # 4

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)	X	
H_{1b}: Human, community and social affairs(s)	X	
H_{1c}: Long range planning(s)	X	
H_{1d}: Business reputation(s)	X	
H_{1e}: Preservation of assets(s)	X	
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)	X	
H_{2b}: Human, community and social affairs(s)	X	
H_{2c}: Long range planning(s)	X	
H_{2d}: Business reputation(s)	X	
H_{2e}: Preservation of assets(s)	X	
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

portant than all five of the strategically oriented roles. Thus, the operational hypotheses H_{1a} through H_{1e} and H_{2a} through $_{2e}$ were accepted.

This operational orientation which emerged from the analysis of the CEOs objective responses is very consistent with his subjective feelings. On strategic versus operational aspects of managing his firm, the CEO stated:

> Operating effectiveness is more desirable than long-range planning or other strategic roles for a CEO. This is because the desired tradeoff between operational and strategic roles is to emphasize the operational orientation and hope (emphasis his) he can plan to an acceptable degree. It is easier to get a 'planner' to help in the long run than an operationally oriented person to run things in the short run.

This CEO further stated that 80 percent of the CEO's job should be operationally oriented, while 20 percent should be strategically oriented. Clearly this CEO does not feel that large firms must have a strategically oriented CEO. As he stated, he feels he can hire someone to help him in those aspects of the job, but it is up to him personally to oversee and help if necessary in the operational aspects of the firm.

Once again these results do not support the widely held contention that CEOs of large firms are more strategically than operationally oriented. One possible explanation for this operational orientation may lie in the fact that he has been CEO for only five years. This may bias his preceived importance of operationally oriented roles because he is not far removed from his prior positions (e.g., vice president of manufacturing, vice president-controller) which primarily involved opera-

tionally oriented roles.

Chief Executive Officer #5

This CEO has spent 17 years working in the furniture industry and has been founder and CEO of this firm for the past four years. The firm had 1979 sales of approximately $2 million and had twenty-five employees of which none are considered management (above first line supervisors). Table 4.15 and Figure 4.5 present the results of the analysis of this CEO.

CEO 5 exhibited five significant ($p < .10$) effects. Their ranking, magnitude of effect and proportion of variance accounted for (ω^2) are presented in Table 4.16. Thus, 86.7 percent of the variance in the ranking by this CEO can be accounted for by these five roles. The remaining three roles combined accounted for only .3 percent of the total variance explained by the model.

This CEO placed tremendous importance on one role "business control" which is operationally oriented. This role alone accounted for 65.1 percent of the variance. The only other role which had a positive magnitude of effect was "business reputation" which is a strategically oriented role but this role only accounted for 1.2 percent of the variance. The other three roles which had significant ($p < .10$) effects were all strategically oriented roles and were negative. This means that as the level of those factors went from poor to excellent the judgment means decreased. Thus this CEO definitely perceives operational aspects of the firm as far more important than strategic aspects. These results are generally consistent with prior statements that operationally

Table 4.15

The Relative Importance of the Eight Work Roles for Chief Executive Officer #5 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	ω^{2}(+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.625	1.562	-.063	.031	.000
B	Poor	Excellent	1.647	1.533	-.114	.103	.003
C	Poor	Excellent	1.062	2.125	1.063	9.031**	.651
D	Poor	Excellent	1.846	1.421	-.425	1.394**	.097
E	Poor	Excellent	1.785	1.444	-.341	.917**	.062
F	Poor	Excellent	1.722	1.428	-.294	.679**	.045
G	Poor	Excellent	1.500	1.666	.166	.218*	.012
H	Poor	Excellent	1.600	1.583	-.017	.002	.000

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

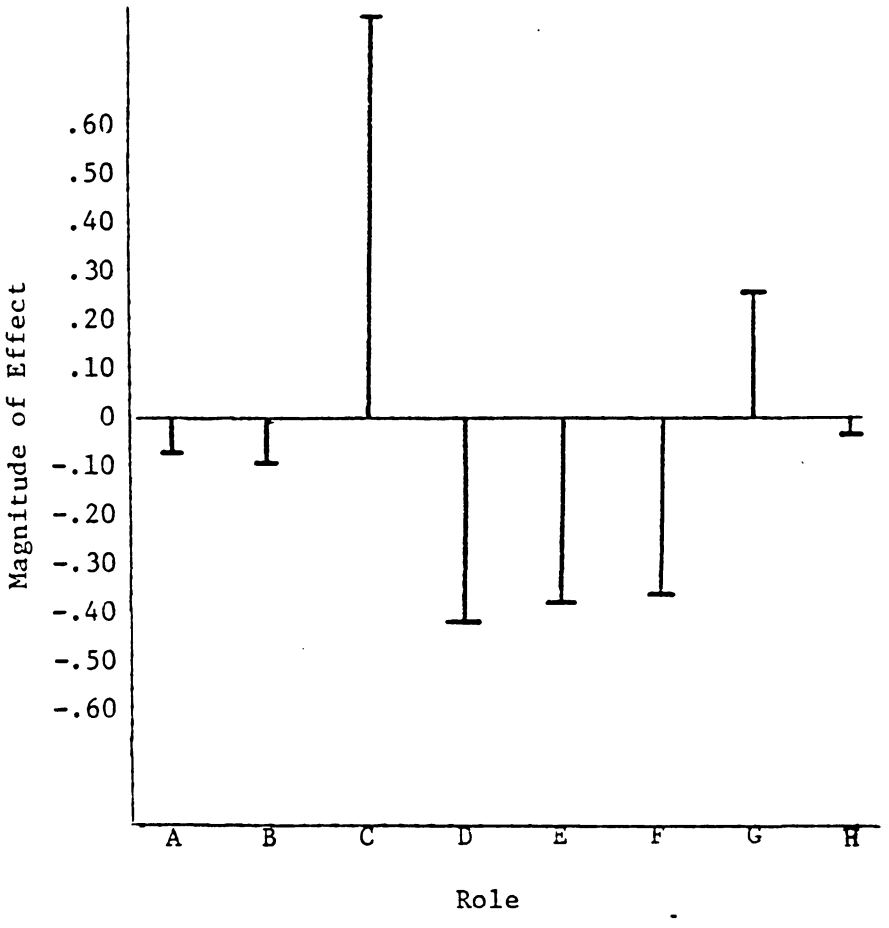
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.5
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer # 5

Table 4.16

Work Roles with Significant Effects
for Chief Executive Officer # 5

	Role	Magnitude of Effect	ω^2
1.	Business Control(o)	1.063	65.1%
2.	Business Reputation(s)	.166	1.2%
3.	Long Range Planning(s)	-.294	4.5%
4.	Human, Community and Social Affairs (s)	-.341	6.2%
5.	Technical Concerns with Products and Markets(s)	-.425	9.7%
			86.7%

oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6].

For CEO 5 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 26.53 which was significant at the .0001 level. Table 4.17 displays a summary of the 15 operational hypotheses. Of the three operationally oriented roles, "business control" was found to be significantly more important than the five strategically oriented roles. Thus, the operational hypotheses H_{3a} through H_{3e} were accepted.

Certainly one potential explanation for this CEO's emphasis on operational factors could lie in the fact that he is the only person in his firm considered to be a manager. That is, of his 25 employees none are above the level of first line supervisor. Thus, he may often be required to assume responsibility for operational activities due to the dearth of management depth. The fact that he has been a CEO for only four years may bias his perceived importance of these roles because he is not far removed from his prior positions (e.g., vice president of purchasing, production manager) which primarily had operational orientations.

During discussions with this CEO, he made it clear that he feels that a knowledge and control of the organization's "budgets" are a key for any CEO. He stated:

> Budgets are the core of the operations. They let me know all my strengths and weaknesses. You don't look at dollars, you look at percents. The guy at the top should be the only one concerned with this.

Table 4.17

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer # 5

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)	X	
H_{3b}: Human, community and social affairs(s)	X	
H_{3c}: Long range planning(s)	X	
H_{3d}: Business reputation(s)	X	
H_{3e}: Preservation of assets(s)	X	

> I am not going to use intuition to make decisions I'm going to use facts generated from the budget. If a CEO is active in the budget he knows everything that goes on in the firm.

Along with budgeting, inventory control is also important. He stated:

> If CEOs can handle delivery then he is controlling inventory and purchasing. I turn my inventory over 24 times a year and I don't know anybody in the industry who can say that. If a person cannot review budgets and maintain inventories he would not be an acceptable CEO.

When it was brought up that possibly his preference for operationally oriented roles may be due to the small size of his firm and lack of management staff, he noted: "Even if I sold $40 million I'd run this business the same way." Obviously this CEO feels that the preponderence of the CEO's job is operationally oriented.

Chief Executive Officer #6

This CEO has spent his complete working life of 27 years in the furniture industry and has been founder and CEO of this firm for the past 10 years. The firm had 1979 sales of approximately $2 million and had 55 employees of which five are considered management (above first line supervisor). Table 4.18 and Figure 4.6 present the results of the analysis of this CEO.

CEO 6 exhibited four significant ($p < .10$) effects. Their ranking, magnitude of effect and proportion of variance accounted for (ω^2) are presented in Table 4.19. Thus 40 percent of the variance in the rating by this CEO can be accounted for by these four roles. The remaining four roles combined accounted for only 2 percent of the total variance explained by the model. This CEO places primary importance on the two

Table 4.18

The Relative Importance of the Eight Work Roles for Chief Executive Officer # 6 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	$\omega^{2(+++)}$
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.937	2.125	.188	.281	.020
B	Poor	Excellent	2.058	2.000	-.058	.027	.000
C	Poor	Excellent	2.062	2.000	-.062	.031	.000
D	Poor	Excellent	2.076	2.000	-.076	.045	.000
E	Poor	Excellent	2.214	1.888	-.326	.833*	.098
F	Poor	Excellent	1.888	2.214	.326	.833*	.098
G	Poor	Excellent	2.214	1.888	-.326	.833*	.098
H	Poor	Excellent	1.900	2.250	.350	.918*	.110

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

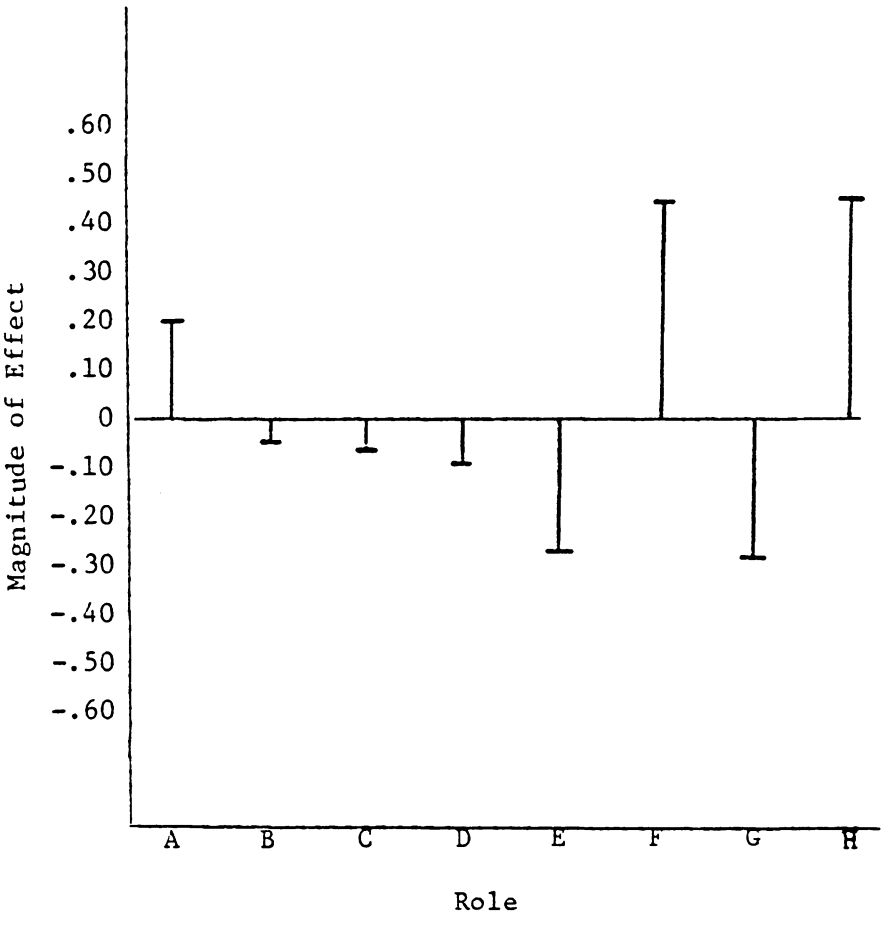
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.6
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer # 6

Table 4.19

Work Roles with Significant Effects
for Chief Executive Officer # 6

	Role	Magnitude of Effect	ω^2
1.	Preservation of Assets(s)	.350	11.0%
2.	Long Range Planning(s)	.326	9.8%
3.	Business Reputation(s)	-.326	9.8%
4.	Human, Community and Social Affairs(s)	-.326	9.8%
			40.4%

strategically oriented roles of "preservation of assets" and "long range planning." The other two significant ($p < .10$) roles were also strategically oriented but both had negative magnitudes of effect which means as the levels of those factors went from poor to excellent the mean judgment shifted downward. All three operationally oriented roles had non-significant results. These results are not consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategic oriented roles [1,2,3,5,6].

For CEO 6 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 3.46 which was significant at the .009 level. Table 4.20 displays a summary of the 15 operational hypotheses. None of the three operational roles were perceived by CEO 6 as being significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

One potential explanation for this CEO's emphasis on strategically oriented roles may lie in the fact that he has been CEO for 10 years and is far removed from his prior positions in other firms (e.g. plant supervisor, production manager) which entailed a heavey operational orientation. Also, the fact that he "founded" this firm may contribute to his preference for strategically oriented roles.

Certainly one decision that he made a few years ago supports the fact that this CEO does manage his firm strategically. This firm has

Table 4.20

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer # 6

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

only two product lines: dentist chairs and sleeper sofas. Due to the rising costs of making dentist chairs, the price of them has risen considerably (most were over $10,000 just for the chair). Coupled with an oversupply of dentists (according to this CEO), this price rise dramatically reduced the demand for this product line. The oversupply of dentists affected the demand for dentist chairs because it became very hard to start a regular practice and banks made it much harder to borrow money to set up an office. CEO 6 was aware of this trend and had made a decision to go more heavily into sleeper sofas. He saw the growing need for his product and made a commitment to develop a distinctive competency in them. He stated:

> We began emphasizing our sleeper sofas after a few years of research indicated that these sofas were a good product given the trends such as apartment living, condos, etc. People were looking for dual purpose furniture due to the space limitations in this type of living.

Ironically, this CEO was the only one of the 10 who did not attend college, yet he was as knowledgeable (if not more so) aobut his firm's environment and the importance of the strategically oriented roles in the management of his firm as the other CEOs.

Another possible explanation for this CEO's emphasis on strategically oriented roles is that he feels that he has competent people in other management positions. He stated:

> I lean very heavily on the controller and sales manager for help in the operational areas. I had to wear many hats when we were smaller. This firm was started by three people ten years ago. We have been fortunate to have good employees. I plan for the long run and then sound it off the other management. My position does entail initiating this planning.

On the aspect of delegating responsibilities, the CEO noted:

> Delegation is important but hard in a small firm. When you are extremely small, you actually work with the other employees. After you grow, you must 'boss' them and it can create identity problems.

This CEO is aware of some inherent advantages and disadvantages because of his firm's relative small size within the furniture industry. He felt that:

> The responsibilities of a small firm are greater especially in the area of finance. We do not have the luxuries that larger firms have such as idle cash, large staff, etc. However, we are extremely flexible in our operations relative to large firms and we can move much quicker than Bassett (a large firm within the furniture) can.

Chief Executive Officer #7

This CEO has spent 57 years working in the furniture industry. He founded and has been CEO of his present firm for the past 51 years. The firm had a 1979 sales of approximately $3 million and had 145 employees of which five are considered management (above first line supervisors). Table 4.21 and Figure 4.7 present the results of the analysis of this CEO.

CEO 7 exhibited two significant ($p<.10$) effects. Their ranking, magnitude of effect and proportion of variance explained (ω^2) are presented in Table 4.22. Thus 28.6 percent of the variance in the rating by this CEO can be accounted for by "preservation of assets" and "long range planning." The remaining six roles combined accounted for only 4.4 percent of the total variance explained by the model. This CEO clearly places primary importance on the two strategically oriented roles as identified in Table 4.22. In fact, the magnitudes

Table 4.21

The Relative Importance of the Eight Work Roles for Chief Executive Officer #7 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role (+)	Level Description		Judgment Mean		Magnitude of Effect (++)	Mean Square	ω^2 (+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.625	1.437	-.188	.281	.005
B	Poor	Excellent	1.647	1.400	-.247	.486	.026
C	Poor	Excellent	1.625	1.437	-.188	.281	.005
D	Poor	Excellent	1.538	1.526	-.012	.001	.000
E	Poor	Excellent	1.642	1.444	-.198	.310	.008
F	Poor	Excellent	1.333	1.785	.452	1.611*	.136
G	Poor	Excellent	1.571	1.500	-.071	.040	.000
H	Poor	Excellent	1.350	1.833	.483	1.752*	.150

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

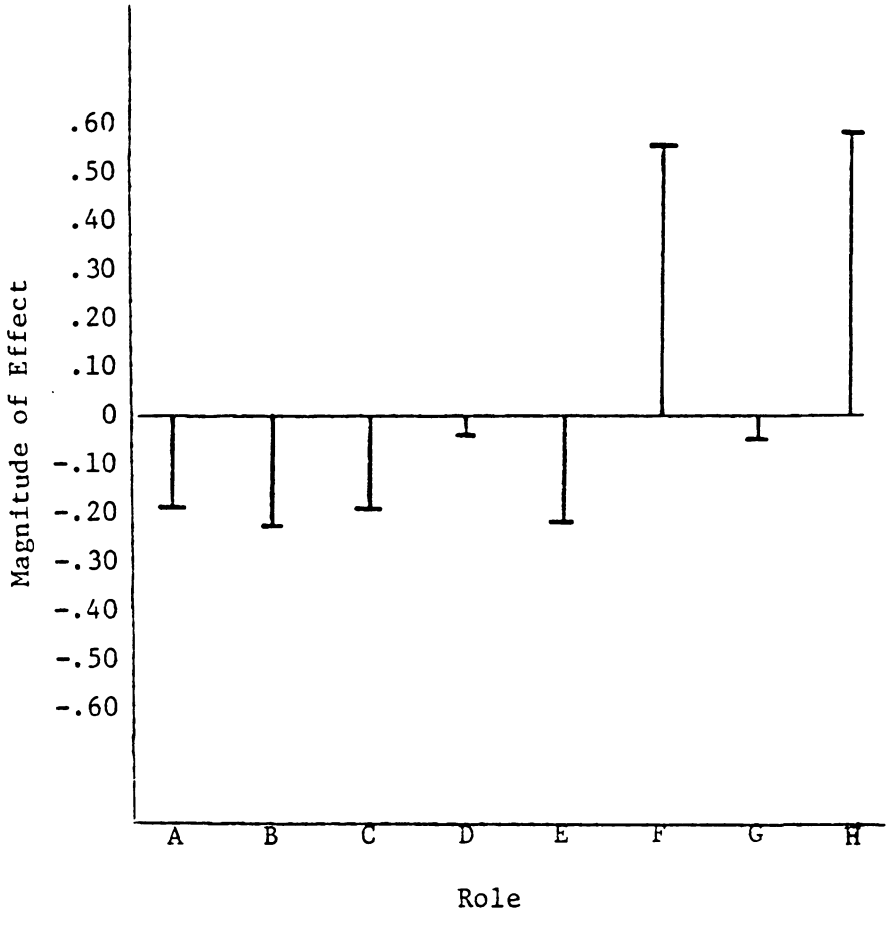
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.7
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer # 7

Table 4.22

Work Roles with Significant Effects
for Chief Executive Officer # 7

Role	Magnitude of Effect	ω^2
1. Preservation of Assets(s)	.483	15.0%
2. Long Range Planning(s)	.452	13.6%
		28.6%

of effect for the remaining six roles were all negative. This means that as the factor level went from poor to excellent the judgment mean decreased. Clearly this CEO feels that "preservation of assets" and "long range planning" are of paramount importance. These results are not consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6].

For CEO 7 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 2.64 which was significant at the .03 level. Table 4.23 displays a summary of the 15 operational hypotheses. None of these operationally oriented roles are perceived by CEO 7 as being significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

One possible explanation for this CEO's emphasis on strategically oriented roles could lie in the fact that he has been CEO for 51 years and therefore has become more and more removed from the operational aspects of the firm. He does delegate quite a lot of responsibility because he does feel he has a good management team under him. He commented:

> I do delegate quite a lot but I still want to know everything that goes on. Although I depend on my management team I expect them to keep me informed of anything important.

Table 4.23

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer # 7

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

Another potential explanation for this CEO's lack of emphasis on operationally oriented roles could be due to his age. He was born October 30, 1902 and he cannot do as much in the office as he used to. Thus for this CEO of this small firm, the operationally oriented roles of the CEO are not nearly as important as the strategically oriented roles.

CEO 7 also emphasized the importance of financial aspects of managing his small firm. He stressed:

> Due to the economy, control of finances is most important for me. Anything concerning the cash flow I get involved in. This is probably due to my upbringing; that is working in 1929 made us appreciate the value of money. If I were to select a replacement for myself I would look for a person with general all around skills with an emphasis on finance to be a CEO for a firm of my size.

Chief Executive Officer #8

This CEO has spent 23 years working in the furniture industry, all of which were with the same firm. He has been CEO for the past 17 years. The firm had 1979 sales of $15 million and employed 300 people of which 15 are considered management (above first line supervisors). Table 4.24 and Figure 4.8 present the results of the analysis of this CEO.

CEO 8 exhibited three significant ($p<.10$) effects. Their ranking, magnitude of effect and proportion of variance explained (ω^2) are presented in Table 4.25. Thus, 46.9 percent of the variance in the rating by this CEO can be accounted for by "long range planning," "preservation of assets" and "business control." The remaining five

Table 4.24

The Relative Importance of the Eight Work Roles for Chief Executive Officer # 8 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	$\omega^{2(+++)}$
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	2.000	2.000	000	.000	.000
B	Poor	Excellent	2.058	1.933	-.125	.125	.000
C	Poor	Excellent	2.312	1.687	-.625	3.125**	.175
D	Poor	Excellent	2.153	1.894	-.259	.518	.015
E	Poor	Excellent	2.142	1.888	-.254	.507	.014
F	Poor	Excellent	1.722	2.357	.635	3.174**	.180
G	Poor	Excellent	1.928	2.055	.127	.126	.000
H	Poor	Excellent	1.800	2.333	.533	2.133*	.114

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

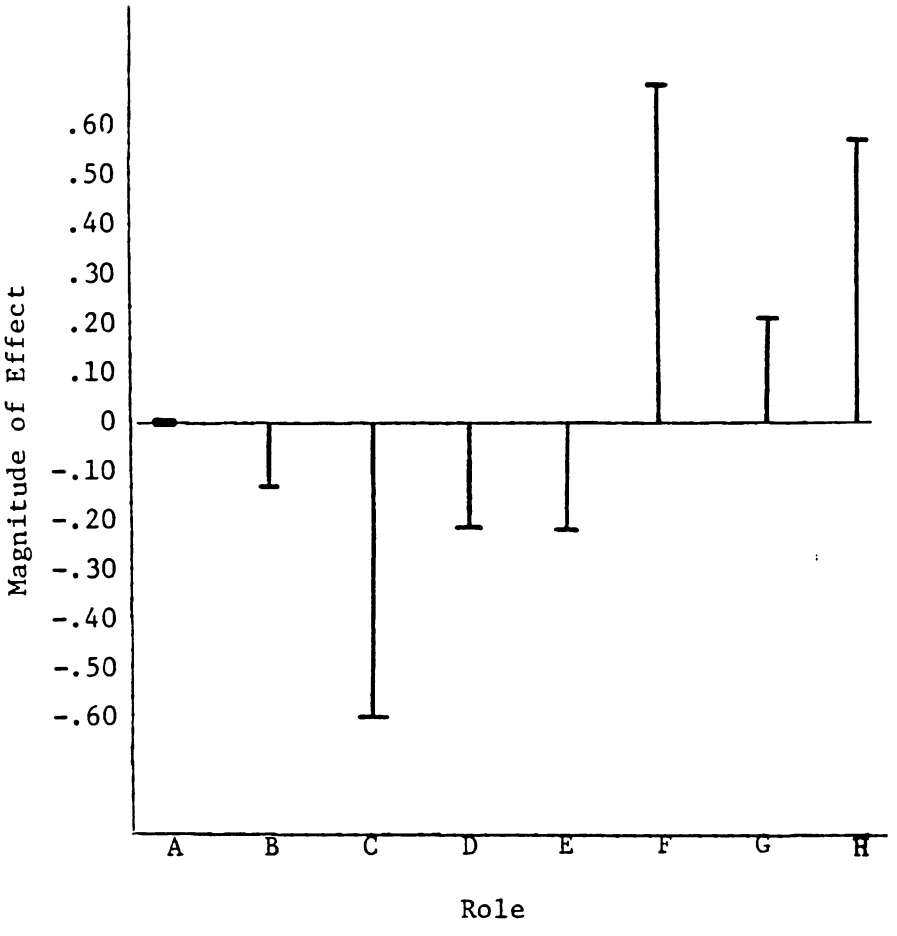
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.8
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer #8

Table 4.25

Work Roles with Significant Effects
for Chief Executive Officer #8

Role	Magnitude of Effect	ω^2
1. Long Range Planning(s)	.635	18.0%
2. Preservation of Assets(s)	.533	11.4%
3. Business Control(o)	-.625	17.5%
		46.9%

roles combined accounted for only 2.9 percent of the total variance explained by the model. The first two significant roles were strategically oriented roles and the third was an operationally oriented role. The positive magnitudes of effect for the first two roles and the negative magnitude of effect for the third indicate the distinct priority that this CEO gives to the strategically oriented roles of managing his firm. The negative magnitude of effect for the one significant ($p<.10$) operationally oriented role meant that as the factor level went from poor to excellent the judgment mean decreased. In essence, this shows that this role is the least important role of the eight. These results are not consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6]. In fact, these results clearly support the contention that strategically oriented roles are perceived as the most important roles for the CEO of this small firm. The negative magnitude of effect of the one significant operationally oriented role also supports this contention.

For CEO 8 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 4.44 which was significant at the .002 level. Table 4.26 displays a summary of the 15 operational hypotheses. None of the three operationally oriented roles were perceived by CEO 8 as being significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

Table 4.26

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer # 8

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

One possible explanation for this CEO's emphasis on strategically oriented roles may be that he has 15 employees who are considered management (above the level of first line supervisor) out of a total of 300 employees. Thus there appears to be sufficient management depth available to monitor and conduct the operational activities of the firm. This would allow the CEO to concentrate on the strategic activities of the firm. In addition, the fact that this person has been the CEO for 17 years and is therefore far removed from his prior positions (e.g., plant manager, production manager) which require an operational orientation.

CEO 8 stated during the interview that he felt that long range planning was the most important aspect of his job. Results of the ANOVA clearly support this statement because that role was, in fact, ranked most important. Moreover, CEO 8 stated that if a CEO was not adequate (or better) in long range planning than no matter how well he/she performed other managerial functions, that person "would not be an acceptable CEO."

Chief Executive Officer #9

This CEO has spent 29 years working in the furniture industry. He founded this firm 10 years ago and has been CEO since then. The firm had 1979 sales of $2.5 million and employed 70 people of which five are considered management (above first line supervisors). Table 4.27 and Figure 4.9 present the results of the analysis for this CEO.

CEO 9 exhibited four significant ($p<.10$) effects. Their ranking,

Table 4.27

The Relative Importance of the Eight Work Roles for Chief Executive Officer #9 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	ω^2(+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.750	1.750	000	.000	.000
B	Poor	Excellent	1.941	1.533	-.408	1.325**	.116
C	Poor	Excellent	1.875	1.625	-.250	.500*	.035
D	Poor	Excellent	1.615	1.842	.227	.396	.025
E	Poor	Excellent	1.928	1.611	-.317	.793*	.064
F	Poor	Excellent	1.666	1.857	.191	.285	.014
G	Poor	Excellent	1.785	1.722	-.063	.031	.000
H	Poor	Excellent	1.500	2.166	.666	3.333**	.314

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

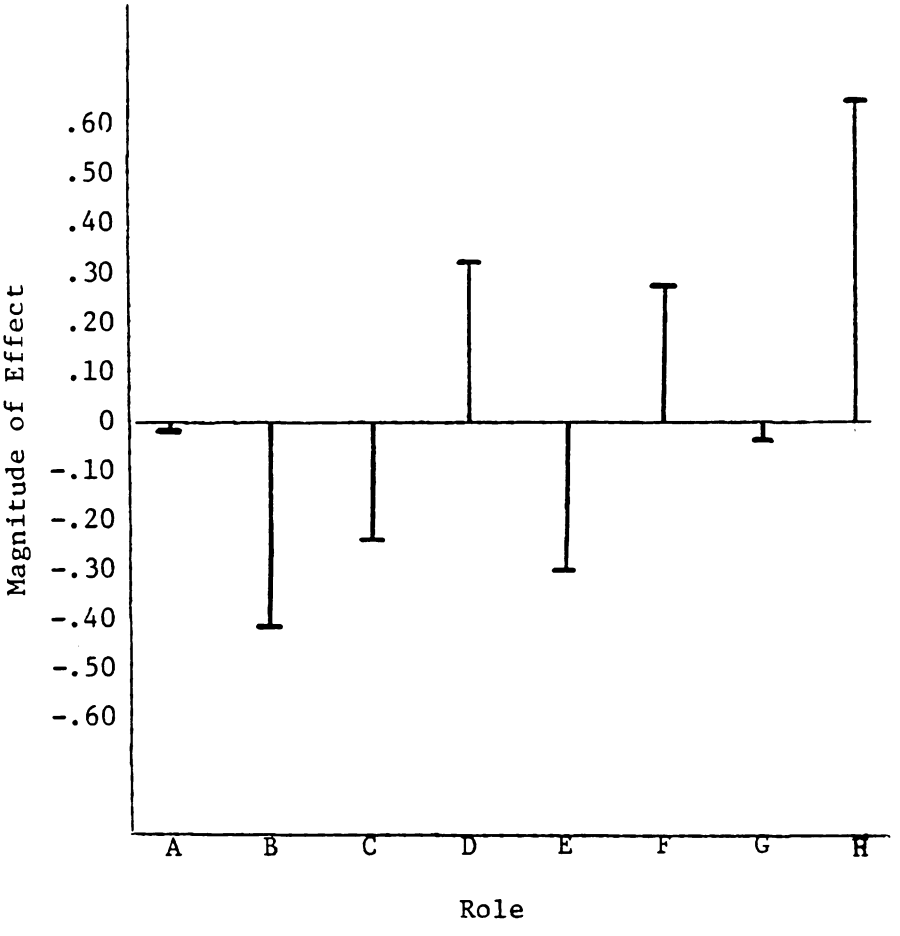
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.9
Bar Graph of the Magnitudes of
Effect for Each Role for Chief Executive Officer # 9

Table 4.28

Work Roles with Significant Effects
for Chief Executive Officer #9

Role	Magnitude of Effect	ω^2
1. Preservation of Assets(s)	.666	31.4%
2. Business Control(o)	-.250	3.5%
3. Human, Community and Social Affairs (s)	-.317	6.4%
4. Supervision of Work(o)	-.408	11.6%
		52.9%

magnitude of effect and proportion of variance explained (ω^2) are presented in Table 4.28. Thus 52.9 percent of the variance in the rating by this CEO can be accounted for by "preservation of assets," "business control," "human, community and social affairs" and "supervision of work." The remaining four roles combined accounted for only 3.9 percent of the total variance explained by the model. Only the role with the highest ranking, which is a strategically oriented role, had a magnitude of effect in a positive direction. This positive magnitude of effect coupled with the negative magnitudes of effect for the two significant operationally oriented roles indicate that this CEO perceives the strategic aspects of the firm to be more important than the operational aspects. This is also supported by the fact that the only other operationally oriented role "providing a staff service in a non-operational area" had a neutral magnitude of effect (see Table 4.27). That is, as the level of ability shifted from poor to excellent for this role the magnitude of effect was unchanged. These results are not consistent with prior statements that operationally oriented roles are more important to CEOs of small firms than strategically oriented roles [1,2,3,5,6].

For CEO 9 the null hypothesis was rejected and the alternative hypothesis was accepted. That there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 5.75 which was significant at the .0004 level. Table 4.29 displays a summary of the 15 operational hypotheses. None of the three operationally oriented roles were perceived by CEO 9 as being

Table 4.29

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer #9

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

One possible explanation for this CEO's emphasis on strategic aspects of the firm could be his trust in his management team and his feelings about delegation of responsibility. On this topic, he stated:

> I try not to make any decisions and let my subordinates do it themselves. I don't get involved in employee selection because I have a plant manager. A CEO should have the abilities to 'trouble shoot.' Inventory control is also delegated. Our mini-computer helps me control in this and other areas. Formulation of long run objectives is really what the job is.

His comments appear to support the results shown that he perceives the strategically oriented roles to be of paramount importance in managing his small firm. The role "long range planning" was not rated significantly more important than the other roles. It did have a positive magnitude of effect as the level of ability went from poor to excellent. This is consistent with his subjective impressions.

Another potential reason that CEO 9 stressed strategically oriented roles may be due to the fact that he "founded" this firm. This requires a strategic orientation to some degree and probably contributes to his preference for strategically oriented roles. Finally, this preference for strategically oriented roles may lie in his working background. For 19 years prior to his starting this firm, CEO 9 was employed strictly in "sales" within the furniture industry. This type of background appears consistent with this CEO's perception

that operationally oriented roles are not as important as strategically oriented roles.

Since he was the founder of this firm, he had some comments pertaining to its growing pains and present objectives.

> The biggest problem in the beginning was the lack of financial background in regard to costs and selling price. A layman's working knowledge of finance (cash flow, etc.) is extremely important. This is probably what kills most CEOs. The actual 'workings' of a business (overhead, insurance, etc.) is also important. It took me about five years to get a niche and solidify my directions.
>
> My objective is not to reach a certain sales level. I'm not in this business to be the biggest furniture manufacturer, rather I hope to make a comfortable living and then sell the firm.

Chief Executive Officer #10

This CEO has spent 40 years working in the furniture industry including part-time work when he was a young boy. He has been with the present firm since it started in 1955 and has been CEO for 13 years. The firm had 1979 sales of $47 million and employed 1500 people of which 100 are considered management (above first line supervisors). Table 4.30 and Figure 4.10 present the results of the analysis of this CEO.

CEO 10 exhibited six significant ($p<.10$) effects. Their ranking, magnitude of effect and proportion of variance explained (ω^2) are presented in Table 4.31. Thus, these six significant roles account for all of the variance explained by the model. The only two roles, "long range planning" and "preservation of assets" which had positive magnitudes of effect were both strategically oriented. Two of the

Table 4.30

The Relative Importance of the Eight Work Roles for Chief Executive Officer #10 Based Upon Each Role's Magnitude of Effect and Its Percentage of Variance Explained

Role(+)	Level Description		Judgment Mean		Magnitude of Effect(++)	Mean Square	ω^2(+++)
	Level 1	Level 2	Level 1	Level 2			
A	Poor	Excellent	1.750	1.750	0	.000	.000
B	Poor	Excellent	1.941	1.533	-.408	1.325**	.160
C	Poor	Excellent	1.875	1.625	-.250	.500**	.057
D	Poor	Excellent	1.769	1.736	-.033	.008	.000
E	Poor	Excellent	1.857	1.666	-.191	.285*	.031
F	Poor	Excellent	1.500	2.071	.571	2.571	.315
G	Poor	Excellent	1.857	1.666	-.191	.285	.031
H	Poor	Excellent	1.550	2.083	.533	2.133**	.261

(+) A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

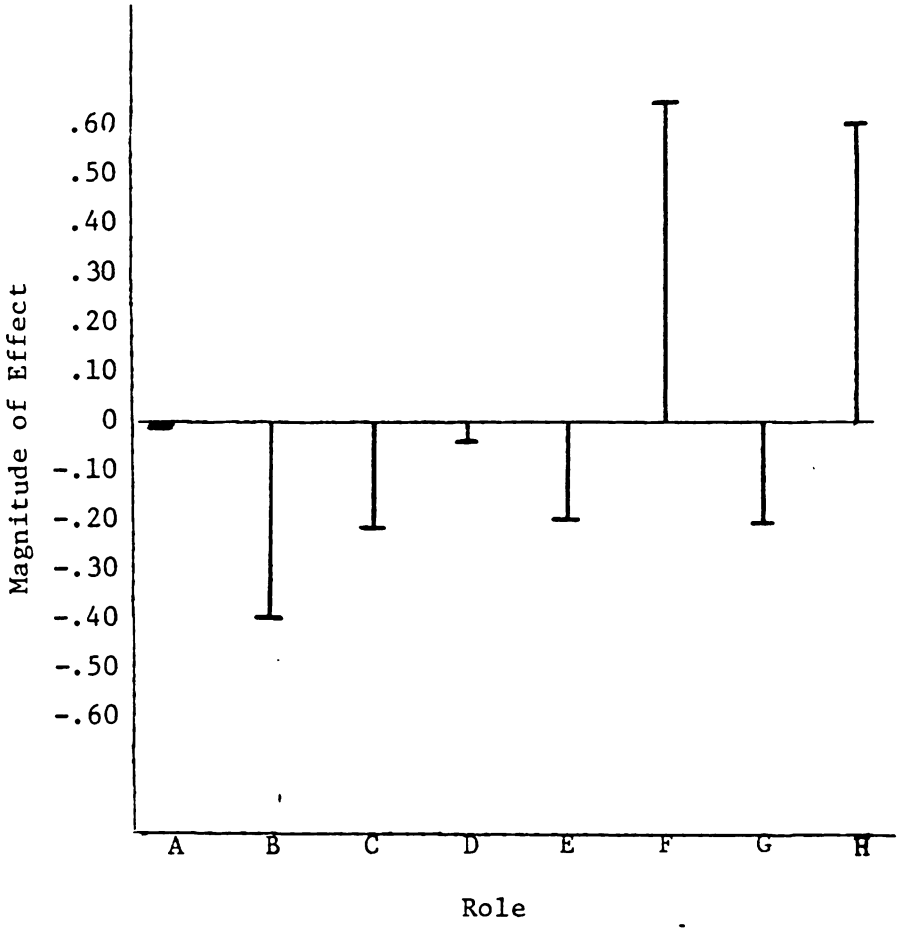
H: Preservation of assets(s)

(++) Based on the degree to which the mean judgment changes as the level of the factor changes.

(+++) Percentage of variance explained.

* $p < .10$

** $p < .01$



A: Providing a staff service in a non-operational area(o)

B: Supervision of work(o)

C: Business control(o)

D: Technical concerns with products and markets(s)

E: Human, community and social affairs(s)

F: Long range planning(s)

G: Business reputation(s)

H: Preservation of assets(s)

Figure 4.10

Bar Graph of the Magnitudes of Effect for Each Role for Chief Executive Officer #10

Table 4.31

Work Roles with Significant Effects
for Chief Executive Officer #10

Role	Magnitude of Effect	ω^2
1. Long Range Planning(s)	.571	31.5%
2. Preservation of Assets(s)	.533	26.1%
3. Business Reputation(s)	-.191	3.1%
4. Human, Community and Social Affairs(s)	-.191	3.1%
5. Business Control(o)	-.250	5.7%
6. Supervision of Work(o)	-.408	16.0%
		85.5%

three operationally oriented roles were significant ($p<.10$) but had negative magnitudes of effect while the third operational role had a neutral magnitude of effect. This clearly indicates that this CEO perceives the strategic aspects of the firm to be more important than the operational aspects. These results are consistent with prior statements that operationally oriented roles are perceived as more important to CEOs of small firms while strategically oriented roles are more important to CEOs of large firms [1,2,3,5,6]. Since this firm must be considered a large firm by virtue of its 1979 annual sales of $47 million, it is expected that strategically oriented roles would be perceived as more important

For CEO 10 the null hypothesis was rejected and the alternative hypothesis was accepted that there is indeed a difference in the relative importance of the eight work roles. The ANOVA produced an F value of 5.42 which was significant at the .0008 level. Table 4.32 displays a summary of the 15 operational hypothesis. None of the three operationally oriented roles are perceived by CEO 10 as being significantly more important relative to any of the five strategically oriented roles. Thus each of the 15 operational hypotheses was rejected.

One possible explanation for this CEO's emphasis on strategically oriented roles may lie in the fact that he has been CEO for 13 years. Thus, CEO 10 is far removed from his prior positions (e.g., vice president of manufacturing, general manager) which entailed a much heavier operational orientation. This CEO also expressed a great deal of

Table 4.32

Summary of Significance Tests ($p < .10$)
of Operational Hypotheses for
Chief Executive Officer #10

Hypotheses	Accepted	Rejected
Providing a staff service in a non-operational area(o) is more important than:		
H_{1a}: Technical concerns with products and market(s)		X
H_{1b}: Human, community and social affairs(s)		X
H_{1c}: Long range planning(s)		X
H_{1d}: Business reputation(s)		X
H_{1e}: Preservation of assets(s)		X
Supervision of work(o) is more important than:		
H_{2a}: Technical concerns with product and market(s)		X
H_{2b}: Human, community and social affairs(s)		X
H_{2c}: Long range planning(s)		X
H_{2d}: Business reputation(s)		X
H_{2e}: Preservation of assets(s)		X
Business Control(o) is more important than:		
H_{3a}: Technical concerns with products and markets(s)		X
H_{3b}: Human, community and social affairs(s)		X
H_{3c}: Long range planning(s)		X
H_{3d}: Business reputation(s)		X
H_{3e}: Preservation of assets(s)		X

confidence in his management team and he did state that he will "not hesitate to delegate responsibilities."

CEO 10 commented on the competitive nature of the furniture industry. He expressed that this is the reason that "long range planning" is so vitally important. This CEO also suggested that "Washington is the businessman's biggest problem." He recognized the necessity of monitoring consumer demands. He felt a large part of his job "was to anticipate new or changed demands." Finally, he commented on the fact that furniture is a postponable purchase and that the present economy is a major threat to his firm and the industry in general. Clearly, this CEO is strategically oriented. The analysis of his responses on the data collection instrument and his subjective impressions both strongly support this conclusion.

SUMMARY OF INDIVIDUAL CEO RESULTS

There is a great deal of diversity as to how each CEO perceives the relative importance of the eight work roles. Clearly, two strategically oriented work roles "preservation of assets" and "long range planning" stand out as the two most important roles among the eight. Table 4.33 shows how many times each role had a significant ($p<.10$) effect in its ranking by the 10 CEOs. For example, "preservation of assets" was significantly rated as being the most important role by seven of the CEOs and ranked second by two of them. "Long range planning" was ranked first in importance by two CEOs and second by four of them.

Table 4.33

Overall Ranking of Work Roles Based Upon Significant ($p < .10$) Effects From the ANOVA on Each of the 10 Chief Executive Officers

Role and Final Rank	Individual Rankings by Each CEO								Overall Score(+)
	1	2	3	4	5	6	7	8	
1. Preservation of Assets(s)	7	2	0	0	0	1	0	0	1.70
2. Long Range Planning(s)	2	4	0	0	1	1	0	0	2.63
3. Business Reputation(s)	0	2	1	0	0	0	3	0	4.67
4. Business control (o)	1	2	0	0	0	1	1	2	4.85
5/5. Providing a Staff Service on a Non-Operational Area(o)	0	0	1	0	0	0	0	1	5.5
5/5. Technical Concerns with Products and Markets(s)	0	0	1	1	0	0	1	1	5.5
7. Supervision of Work(o)	0	1	0	0	0	1	0	2	6.0
8. Human, Community and Social Affairs(s)	0	0	0	0	0	1	2	3	7.33

(+) Determined by dividing the total of the individual rankings by the number of times the role had significant effects (the lower the score the higher the ranking).

An overall ranking score was derived by totalling the individual rankings by the number of times the role had significant effects. For example, "preservation of assets" had seven number one rankings, two number two rankings and one number three ranking. Thus seven (7x1) was added to four (2x2) and 6 (1x6). The total score (17) was then divided by the number of times that role had significant effects (in other words how many times was it significantly ranked). In this case, 17 divided by 10 and an overall score and ranking (the lower the score the higher the ranking) is obtained. Each of the eight work roles was ranked in this manner.

With the exception of "human, community and social affairs" which was ranked as the least important role and the two most important roles ("preservation of assets" and "long range planning"), there was much disagreement as to the relative importance of the remaining five roles. For instance the operationally oriented role "business control" was ranked fourth overall. A close inspection of Table 4.33 indicates that three CEOs rated it most important or second in importance while four CEOs rated it either sixth, seventh or last in importance.

The dominance of the strategically oriented roles in the ranking of relative importance is not consistent with prior observations (see Chapter I) that operationally oriented roles are dominant. Three important factors can help explain this diversion from previous observations. First, according to the CEOs themselves and other industry experts, the furniture industry can be characterized as utilizing a very stable technology. As one CEO put it, "we make this wood furniture basically the same way we did thirty years ago." Thus, internal

operations are stabilized and probably less complex than internal operations of firms that face a more turbulent technological environment. The CEOs of firms in this industry can therefore manage more "strategically" than CEOs of other firms in industries which utilize a less stable technology in their operations.

Second, this industry is characterized by heavy competition. In fact, the industry sales leader in 1979 captured less than three percent of total industry sales. This intense competition forces CEOs in the industry to be aware of their external environment. They must monitor changes in consumer demand, competition and other "strategic" factors to meet the demands of the external environment.

Third, years of tenure as a CEO appears to affect this predirection toward strategic management. Every CEO who had a predominately strategic orientation also had at least ten years experience as CEO of their respective firms.

These three factors, stability of technology, intensity of competition, and years of CEO tenure appear to help explain why the results of this study do not agree with prior observations. Certainly, additional research is needed to support the importance of these three factors. Moreover, any future study or discussion of the relative importance of managerial work roles should include the fact that industry characteristics (such as technology, competition, etc.) probably effect these perceptions of relative importance. Perhaps it is time to describe the importance of roles <u>within</u> industries (instead of <u>across</u> industries). Thus, work roles should be viewed in <u>contingency</u> terms because it appears

Table 4.34

Summary of the ANOVA for Each of the Ten Chief Executive Officers

CEO	$\omega^{2(+)}$	Mean Rating	Standard Deviation	1979 Sales of Firm (Millions)	Significant Effects(++)
1	46.8%	1.500	.341	20	s,s,s,-o
2	54.1%	2.125	.416	4.5	s,o,-o,-s
3	53.7%	2.062	.330	.35	s,s,s,-o,-o,-s
4*	89.9%	1.875	.184	71	o,o,s,s,-s,-s,-o
5	86.7%	1.594	.241	2	o,s,-s,-s,-s
6	40.4%	2.031	.371	2	s,s,-s,-s
7	28.6%	1.531	.476	3	s,s
8	46.9%	2.000	.523	15	s,s,-o
9	52.9%	1.750	.381	2.5	s,-o,-s,-o
10*	85.5%	1.750	.197	47	s,s,-s,-s,-o,-o

(+) Percentage of variance explained.

(++) "s" denotes strategic role and "o" denotes operational role; minus sign(-) denotes negative effect.

(*) Firm is not considered "small" since sales exceed $25 million.

that industry characteristics affect the importance of various roles. This aspect will be discussed further in Chapter V.

Table 4.34 summarizes some of the results of the ANOVA of each CEO. The percentage of variance explained ranged from 28.6 percent to 89.9 percent with a mean of 58.5 percent. The mean ratings of the dependent variable ("predicted effectiveness of performance") ranged from 1.500 to 2.125. This was based on a maximum score of three. The grand mean was 1.821. Since 1.5 would be "average," it appears that the CEOs rated the set of CEO profiles in a "better than average" light. The standard deviations ranged from .184 to .523.

The 1979 sales of the firm and a breakdown of the significant effects are also presented in Table 4.34. This breakdown clearly shows the dominance of strategically oriented roles over operationally oriented roles.

CEO JUDGMENT CONSENSUS

To assess the inter-judge consensus, pairwise correlations over the 32 primary profiles for all pairs of subjects were calculated. These results are shown in Table 4.35. The degree of consensus (or lack of) across the CEOs can provide useful insights as to why these individuals rated the set of profiles the way they did. As such, two sets of CEOs who had significantly similar patterns of responses and have possible explanations based on firm or individual CEO background data will be discussed.

Set I which consisted of CEOs #1, 6, 7, 8, 9. These CEOs had significant correlations at the .05 level or better. This indicates

Table 4.35

Inter-Judge Correlation Coefficients for 10 Chief Executive Officers Over the 32 Original Profiles

CEO #	1	2	3	4	5	6	7	8	9	10
1	1.00									
2	.07	1.00								
3	.21	.43*	1.00							
4	.10	-.21	-.44*	1.00						
5	-.18	.38**	-.003	-.38**	1.00					
6	.39***	.35**	.24	-.27	.09	1.00				
7	.55*	.34**	.42**	-.22	-.-4	.52*	1.00			
8	.51*	.13	.35**	.09	-.32**	.43*	.37**	1.00		
9	.46*	.23	.26	-.23	-.21	.47*	.35**	.20	1.00	
10	.46*	.20	.03	.02	-.03	.52*	.32***	.31***	.55*	1.00

*Significant at .01 level
**Significant at .05 level
***Significant at .10 level

that these six CEOs all responded to the set of 32 profiles in a very similar fashion. Analysis of the different firms and the individual CEOs' backgrounds showed one distinct similarity. Each of these six CEOs has had a minimum of ten years experience being the CEO of his respective firm. Of the remaining four CEOs included in the study, only one had more than ten years experience as a CEO. This one deviation can possible be explained since that one CEO manages a firm whose annual sales (1979) totaled $350,000 while the six firms whose CEOs responded alike had a minimum sales level of $2 million. Certainly, years as a CEO could play a major role in how one would evaluate potential CEOs. These results support this contention and should be considered as a possible explanation as to why these CEOs responded in such a similar fashion.

Set 2 which consisted of CEOs #2, 3, 5, 6 and 7. These CEOs had significant correlations at the .10 level or better. These five firms all had annual sales (1979) under $5 million. In fact, of the remaining five firms included in the study, only one had annual sales under that figure. Thus, five of six firms who had annual sales (1979) under $5 million all responded in a significant similar manner. On the aspect of relating desired management skills to the size of a firm Cohn and Lindberg state:

> We feel that below $1 million in sales, companies require operating skills but not a great deal of management skill. The number of employees is usually so small that organizational differentiation is rare. Above $1 million, differentiation begins to be clear and the need for a separate, distinctive administration emerges. At the $5 million level the differentiations have become almost universal (emphasis mine...) [2, p. VII).

These results seem to support Cohn and Lindberg's contention that $5 million in sales appears to be a threshold in which different management skills are desired because four of the remaining five firms had annual sales (1979) which ranged from $15 million to $71 million. The CEO of the largest firm (CEO #4) had negative correlations with every other firm whose sales totalled less than $5 million. Clearly, the firm's amount of sales affects the manner in which CEOs evaluate the management skills that they feel are necessary in managing a firm.

Overall of the 45 pairwise correlations, there were 18 significant (at the .10 level) positive correlations and 3 significant (at the .10 level) negative correlations. It certainly appears that years as a CEO and the total sales of the firm are two factors which affect how a CEO evaluates management skills desired to manage a firm. It is also clear that there is much diversity as to how CEOs evaluate management skills necessary for their position.

SUMMARY

This study included a sample of 10 furniture manufacturing firms located in the state of Virginia. Each CEO was personally visited and the data collection instrument was completed in the author's presence. To assess the intra-judge reliability for each CEO, four profiles were included in the total set of 36 profiles given to each CEO being studied. A Pearson Product Moment correlation coefficient was calculated for each CEO and an a priori level of significance of .10 was selected. Five of the ten CEOs had reliability correlations significant at this level. Although the other five CEOs did not achieve the

.10 significance level, they did show adequate reliability by an analysis of the absolute variance between the original and repeat profiles (see Table 4.2). This inspection is deemed necessary because the correlation coefficients are based on a sample of only four observations and therefore slight deviations in one or more paired responses can markedly affect the significance level.

An analysis of variance was performed on each CEO's set of responses. This analysis permitted a ranking of the relative importance of the eight work roles by each of the 10 CEOs. For each CEO, an F test was performed to determine whether the alternate hypothesis could be accepted that there is indeed a difference in the relative importance of the eight work roles. The 15 operational hypotheses were also tested for significance ($p<.10$) for each of the ten CEOs. All 15 of the operational hypotheses were rejected for seven of the CEOs thus indicating the importance of the strategically oriented roles. Various operationally oriented roles were perceived as significantly more important than various strategically oriented roles for the remaining three CEOs. Two of the eight small (under $25 million) firms perceived certain operationally oriented roles to be most important while one of the two large (over $25 million) firms had results indicating that certain operationally oriented roles were more important than the strategically oriented roles. Thus 75 percent (6 of 8) of the CEOs of small firms included in this study are not consistent with prior statements that operationally oriented roles are more important than strategically oriented roles to CEOs of small firms [1,2,3,5]. These results cast serious doubt about the generalizability of that assumption because that

statement was basically generated from observation and not arrived at through statistical analysis.

Three possible explanations for this preference toward strategically oriented roles by these CEOs were offered. First, the fact that the furniture industry utilized a "stable technology" simplifies the internal operations relative to an industry which utilizes a more "turbulent technology." Therefore a CEO can emphasize strategically oriented roles. Second, the industry is characterized by heavy competition. This intense competition "forces" the CEO to manage strategically the firm. They must be aware of consumer demand changes, competitive postures, etc. In short, the heavy competition makes it a necessity that a CEO monitors his/her external environment. Third, each CEO with a strategic orientation also had at least ten years experience as CEO of their firm. There appears to be strong support to suggest that the relative importance of the three operationally and five strategically oriented roles may be largely "contingent" upon the nature of the industry and years of tenure for the CEO.

Finally, pairwise correlations were calculated over the 32 primary profiles for all pairs of subjects to assess the inter-judge consensus. Two sets of CEOs who had significantly ($p<.10$) similar patterns of responses and have possible explanations based on firm or individual CEO background data emerged. CEOs 1, 6, 7, 8, and 10 had significant correlations at the .05 level or better. These CEOs shared a distinct similarity, they all have had a minimum of ten years experience being the CEO of their respective firms. CEOs

2, 3, 5, 6 and 7 had significant correlations at the .10 level or better. Each of these firms had 1979 sales under $5 million. It appears that years as a CEO and sales of the firm are two factors which affect how a CEO views his/her work roles.

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CHAPTER V

CONCLUSION

This chapter will present a brief overview of the entire study including background information, Research Question, Research Design, Data Analyses and the operational hypotheses. A short discussion on the results is also included. Finally, the implications and limitations of this study are presented along with suggestions for future research.

Managerial work has been deliniated into operational or strategic components. To be effective, a manager must achieve a proper "balance" between these two sets of functions. The primary purpose of this study is to determine the perceived importance of the strategic functions of chief executive officers in the wood furniture industry relative to the operational functions. The work of a manager has also been defined in terms of "roles." Certain roles are operational in nature, while others are strategic in nature. The basic research question being addressed is: which work roles, if any, are perceived as more important to the position of a CEO in the furniture industry relative to the other roles? The subjects of this study consisted of ten CEOs of wood furniture manufacturing firms located in the state of Virginia. When each CEO was visited the data collection instrument was completed in the author's presence and each CEO was interviewed.

The roles examined in this study were those described by Hemphill in his research on 93 executives from five large manufacturing firms (see Figure 2.1). These roles are represented on the instrument

utilized in this study by specific work activities which emanated from Hemphill's factor analysis of 659 descriptive work activities. Those work activities which had high factor loadings on each role are used instead of the role titles themselves (see Table 3.1). There are two primary reasons for this use of high factor loadings. First, it insures that the respondents have a consistent frame of reference. Second, the use of specific work activities precludes the respondent from being aware of the main focus of the study. That is, the respondents were not aware that this was a study of their perceptions as to the importance that they place on the roles that they perform. This should minimize any bias that they may have toward specific roles.

The primary thrust of this research centers on the judgment of CEOs as to their perception of the relative importance of the work roles identified with their position. The approach used in this study to model the judgment of the CEOs is called "Brunswik's Lens Model." This "lens model" approach provides a quantified, descriptive summary of the way an individual weighs and combines information. In essence, it provides a mathamatical analysis of the decision maker. Each CEO was presented with a set of 36 profiles describing a hypothetical CEO based on his/her abilities to handle each of the eight roles. Based on this information, the CEOs rated the predicted effectiveness of the hypothetical CEOs. By manipulating these roles reflecting different levels of ability on each, it is possible to determine the relative weights or degree of importance that the CEOs place on each role.

The research design utilized in this study is a fixed 2^8 factorial ANOVA. Each role (factor) was described in terms of two levels: excellent or poor. A one-eighth fractional replication design produced a set of 32 hypothetical CEOs. In addition to the single replication of the 32 profiles for each subject, repeated measures were taken on four of the profiles in order to assess each subject's intra-judge reliability. Thus each subject made 36 decisions in all. With instruction by the researcher, each CEO made judgments as to the predicted effectiveness of each hypothetical CEO based on a scale of one to nine.

Two basic analytical techniques were utilized in the study: correlation and ANOVA. The CEO's judgment reliability was assessed by using the Pearson Product Moment correlation coefficient. This shows the degree to which the CEO produced the same judgment given repeated adminstrations of a single profile. Due to the exploratory nature of this research, an a priori level of significance was set at .10. There is no reason to assume that a Type I error is more noxious than a Type II error. Five of the ten subjects had reliability correlations significant at the .10 level. Although the other five subjects did not achieve this level of significance, they did show adequate reliability by an analysis of the absolute variance between the original and repeat profiles (see Table 4.2).

An analysis of variance was performed on each CEO's set of responses. All ten CEOs showed that there are significant differences in the relative importance of the eight roles being examined. Every F value calculated was significant to at least the .01 level.

Fifteen operational hypotheses were tested for significance ($p<.10$) for each CEO. In essence, the three operationally oriented work roles were individually tested for significance against the five strategically oriented roles in order to determine which role was perceived as most important. All fifteen of the operational hypotheses were rejected by seven of the CEOs. This indicated the importance they place on the strategically oriented roles. The remaining three CEOs perceived certain operational roles as being of primary importance. Eight of the 10 firms included in this study were considered small (under $25 million sales) and six of them or 75 percent do not agree with prior statements that operationally oriented roles are more important than strategically oriented roles to CEOs of small firms. These results appear to cast doubt about that observation that operationally oriented roles are of paramount importance to CEOs of small firms.

One potential explanation for this preference toward strategically oriented roles by these CEOs could be because of the static nature of the technology utilized in the wood furniture industry. Basically, the manufacturing operations have not changed much in the past 30 years. Therefore, CEOs may be able to focus more on strategic factors facing the firm which utilizes a "stable" technology than a firm which utilizes a more "turbulent" technology.

Another explanation could be due to the heavy competition which permeates this industry. This is evidenced by the fact that the industry sales leader controls less than 3 percent of total industry sales. This intense competition appears to "force" the CEO to manage the firm strategically.

Finally, the years of tenure of the CEO can help explain this preference toward strategically oriented roles. Every CEO with a strategic orientation had a minimum of ten years as CEO of their respective firms. Thus, there appears to be support to suggest that the relative importance of the operationally and strategically oriented roles may be largely contingent upon the nature of the industry, and years of CEO tenure.

Pairwise correlations over the 32 primary profiles for all pairs of subjects were calculated to assess the inter-judge consensus. Two sets of CEOs who had significantly similar patterns of responses and have possible explanations based on firm or individual CEO background data emerged. One set of six CEOs had significant correlations at the .05 level. These CEOs shared one distinct similarity, they all have a minimum of ten years experience being the CEO of their respective firms. A second set of five CEOs had significant correlations at the .10 level. Each of the firms had 1979 sales under $5 million. Thus, it appears that years as a CEO and sales of the firm are two factors which affect how a CEO viewed his/her work roles.

IMPLICATIONS

The implications of this research span three separate dimensions: strategic management researchers, top level executives and strategic management faculty.

Implications for Strategic Management Researchers. To date, empirical research has been almost exclusively of a case study nature. It is almost impossible to make generalizable statements from case

studies. This study permits some generalizations on the job of a CEO at least within the wood furniture manufacturing industry.

The results of this study indicate that the strategically oriented roles were perceived as more important than operationally oriented roles. Two possible explanations for this were put forth: (a), the stability of the technology utilized and (b), the intense competition inherent to this industry. Certainly this "explanation" needs more scrutiny. If in fact these two "explanations" are plausible, then it is time to think about the strategic and operational management of the firms in "contingency" terms. Thus this research is a possible first step toward the formulation of a contingency theory of managerial work roles including the strategic and operational management of a firm.

This research adds more clarity to the previous work of others who had identified managerial work roles. This study does attach degrees of importance to these indices of importance to these work roles. Certainly these indices of importance need more refinement. It is clear that these roles differ in relative importance and now more work can be done to distinguish further which roles are more important and why.

Finally, these results cast doubt upon prior observations that CEOs of small firms are more involved in operational aspects of the firm and do little or no strategic management. Certainly much more empirical work is needed in this area. According to the results of this study, CEOs of small firms in the wood furniture industry generally regard the strategic management of the firm as more important than the operational management. Is this indigenous to this study, this industry or all small organizations?

Implications for Top Level Executives. The time of a CEO and most top level executives is extremely limited, the better its utilization, the more effective its results. To the best degree possible, operational oriented decisions should be delegated to a subordinate or covered by a specific policy. The instrument utilized in this study indicated the degree of importance that an individual places upon the operationally and strategically oriented roles inherent to top level executives. It has potential to be utilized to indicate individual preferences toward the operational versus the strategic management of the firm. The ranking that an individual places upon these roles permits a closer examination of the individual and an increased ability to match better the person with the job. This could also be extended beyond individuals to include all top level executives within certain departments or within the whole organization. It would be possible to develop a "strategic profile" for an individual, department or firm. This "profile" will indicate whether they are balanced properly between the operational and strategic management of the firm.

Another implication for top level executives is that this clearer understanding of the roles of a CEO in a small firm will permit better evaluation, training and selection of CEOs. Current and potential CEOs with expertise in those roles of utmost importance would be more desirable than those with expertise in relatively minor roles. Based on the results of this study, a CEO (or potential CEO) with expertise in performing the role of "preservation of assets" or "long range

planning" would be more effective than a person with expertise in "supervision of work" or "human, community and social affairs." This ability to rank the importance of managerial work roles permits a better fit between specific competencies and the relative role demands of a specific position.

Implications for Strategic Management Faculty. The breakdown of managerial work roles into strategic and operational components adds clarity to the demands inherent to a top executive. It points out that a "balance" is needed between the two components. Students of strategic management may now better understand the complexity of a top executive's position. Although top executives are responsible for the strategic management of a firm, it is not to the exclusion of certain operational aspects.

Previously, observations have been proffered that CEOs of small firms are operationally oriented. This study showed opposite results in 75% of the cases. Thus, it should force a re-examination of that "observation." Perhaps it is valid in certain industries or with certain individuals. These results cast doubt upon its generalizability and faculty members in strategic management should be aware of the potential inaccuracy or limitations of that "observation."

These results indicate that the size of the firm and the tenure of a CEO affects how he/she views the relative importance of strategically oriented work roles relative to operational roles. Therefore, these two areas should be considered when strategic management is taught.

LIMITATIONS

The external validity or generalizability of this research effort is its primary limitation. Certainly the fact that it was conducted solely on CEOs within the wood furniture manufacturing industry limits its generalizability outside of this industry. However, this tradeoff of limiting generalizability for a reduction in extraneous variables (differences across industries) was accepted. The introductory nature of this research precluded attempting to build a more "general" set of results.

Another aspect, but not nearly as limiting to this study, needing attention is that of the construct validity. Do the factors being examined, in fact, account for the variance being explained? In other words, does this measuring instrument explain the differences in results? According to Kerlinger, "factor analysis is perhaps the most powerful method on construct validation [3, p. 468]." This method basically reduces a large number of measures to a smaller (and usually more manageable) number called "factors" by isolating which ones "go together." The roles and the corresponding "factors" used on the data collection instrument in this study emanated from an extensive utilization of factor analysis. Hemphill, in his major study of managerial work roles compiled an initial list of 1,500 statements describing managerial work of which he selected 575 [2]. This list of statements was evaluated by 93 executives and their responses were factor analyzed to produce the statements used on the data collection instrument in this study. Thus, this usage of factor analysis to arrive at the

constructs used in this research appears to suffer little from construct validity. This is the main reason that Hemphill's managerial work roles were used instead of the far more popular (and similar) set of work roles identified by Mintzberg [4]. It was felt that use of Mintzberg's work roles would raise serious doubts on the construct validity of the instrument utilized. This is because Mintzberg used no statistical methods, such as factor analysis, to describe his roles. In addition, Mintzberg's study from which he developed his set of roles is based upon a sample of five. Hemphill's sample was 93.

The internal reliability aspect was discussed at length in Chapter IV. As stated, even though five of the ten CEOs did not achieve a significance level of .10 in the reliability tests, further analysis reveals this does not impinge seriously upon the reliability of this study. An analysis of the absolute variance between the four original and repeat profiles indicate that these results are indeed reliable.

SUGGESTIONS FOR FUTURE RESEARCH

The first suggestion for future research emanates directly from the methodology utilized in this study. Brunswik's Lens Model has been used in over 200 studies since 1964 and has been just recently introduced to various business disciplines. Topics have included investment decision making and bank lending policies. Basically, the "Lens Model" approach provides a quantified, descriptive approach of the way an individual weighs and combines information. In essence, it provides a mathamatical analysis of the decision maker. Its potential

usage in strategic management research appears strong. It will allow researchers another viable method of study to complement the plethora of case studies now prevelent. It also permits the utilization of more sophisticated research methods and statistical tools. Wortman states:

> Clearly, the time has come to move toward descriptive studies of the functional type and to move away from descriptive studies of the casual type (exploratory case studies). In this way, the field of strategic management can move toward empirical laws or principles [5, p. 11, 12].

A second suggestion for future research is to extend this study beyond the wood furniture manufacturing industry. A comparison between the results of this study whose industry utilizes basically a "stable" technology with an industry utilizing a more "turbulent" technology could prove fruitful. Studies could be conducted across industries which would yield valuable insights. Regardless of the sample chosen, any similar research in a specific industry or across industries would complement this study well.

The final suggestion for future research is concerned with the integration of performance measures with the analysis of managerial working roles. Is there any relationship between performance measures (profitability, sales, etc.) and perceived importance of the strategic or operational management of the firm? Are firms that are more strategically oriented actually more profitable? Needless to say, it is a complex task to develop answers to such questions. However, such performance measures must eventually be included in research of the

strategic management of the firm. This study hopefully provides a necessary first step toward that goal.

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APPENDIX A

Characteristics of Chief Executive Officers and Firms in the Study

APPENDIX A

Table A.1

Personal Characteristics of Chief Executive Officers

Personal Characteristics	CEO Number										
	1	2	3	4	5	6	7	8	9	10	Mean
Age	62	36	52	53	39	46	78	50	46	48	51
Educational level (years of college)	4	3	4	4	4	0	2	4	1	1	2.7
Years in firm	35	22	30	32	4	10	51	23	10	25	24
Years as CEO	19	4	10	5	4	10	51	17	10	13	14
Salary (base)	NR*	$36,000	NR	$100,000	NR	$35,000	$40,000	NR	$70,000	NR	$56,200

*NR: Not reported.

APPENDIX A

Table A.2

Characteristics of Firms in the Study

Characteristics of Firms	Firm Number										
	1	2	3	4	5	6	7	8	9	10	Mean
Sales of firm (1979) ($millions)	20	4.5	.35	71	2	2	3	15	2.5	47	16.7
Profit (1979)	$639,000	$300,000	Broke even	$3 million	NR	$60,000	$135,000	NR	$175,000	$1.7 million	$667,000
Number of employees	400	120	18	1200	25	55	145	300	70	1500	383
Number of employees above first line of supervision	30	5	1	50	1	5	5	15	5	100	22
Age of firm (years)	54	91	50	74	4	10	51	40	10	25	41
Date visited	8/19/80	8/5/80	8/1/80	8/6/80	8/11/80	8/9/80	8/7/80	8/4/80	8/14/80	7/30/80	

*NR: Not reported

APPENDIX B

Data Collection Instrument

APPENDIX B

Data Collection Instrument

INSTRUCTIONS

Your task is to evaluate each chief executive officer (CEO) based on his/her level of ability shown for eight types of work activities. Your judgement will be on a scale from 1 to 9, with 1 representing predicted poor work performance, 5 meaning average work performance, and 9 being excellent work performance. You are free to use these numbers and the numbers in between them in any way that you wish to express gradations in your predictions of his/her work performance.

Each CEO profile should be judged with regard to how well he/she would perform in your firm and/or similar firms. As you make each judgement, keep in mind that all other pertinent variables (age, educational background, etc.) are considered equal. It is important that you maintain a consistent frame of reference and "style of judgment" throughout the evaluations.

CEO PROFILE #1

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Excellent
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5.	a) Active in community affairs b) Promotion of company to public	Excellent
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #2

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Excellent
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #3

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectivness				extremely effective

CEO PROFILE #5

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #4

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Poor
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #6

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules . b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #10

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #9

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #8

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #7

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Poor
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #28

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #27

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Poor
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5.	a) Active in community affairs b) Promotion of company to public	Excellent
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #26

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #25

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #24

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #23

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #22

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #21

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Excellent
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #20

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #19

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #18

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #17

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #16

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules . b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #15

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Poor
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5.	a) Active in community affairs b) Promotion of company to public	Excellent
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #14

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #13

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #12

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Poor
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #11

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #35

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #34

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE#33

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #32

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #31

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Excellent
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Poor
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #30

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Poor
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Excellent
5. a) Active in community affairs b) Promotion of company to public	Excellent
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Poor
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #29

Work Activities	Level of Ability
1. a) Selection of new employees b) Assign jobs to subordinates	Excellent
2. a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Poor
3. a) Review of budgets for operations b) Maintenance of proper inventories	Poor
4. a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5. a) Active in community affairs b) Promotion of company to public	Poor
6. a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7. a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8. a) Oversees capital expenditures b) Determines utilization of capital assets	Excellent

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

CEO PROFILE #36

	Work Activities	Level of Ability
1.	a) Selection of new employees b) Assign jobs to subordinates	Poor
2.	a) Trouble shoot special problems as they arise b) Plan the best use of available facilities	Excellent
3.	a) Review of budgets for operations b) Maintenance of proper inventories	Excellent
4.	a) Assist sales people in securing important accounts b) Anticipate new or changed demand for products	Poor
5.	a) Active in community affairs b) Promotion of company to public	Poor
6.	a) Formulation of long-run objectives for organization b) Determination of business activities to be engaged in	Excellent
7.	a) Oversees delivery schedules b) Oversees the quality of company products	Excellent
8.	a) Oversees capital expenditures b) Determines utilization of capital assets	Poor

Predicted Effectiveness of Performance

1	2	3	4	5	6	7	8	9
extremely ineffective				average effectiveness				extremely effective

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AN ANALYSIS OF THE WORK ROLES OF CHIEF EXECUTIVE OFFICERS IN SMALL FURNITURE MANUFACTURING FIRMS

By

Richard M. Castaldi

(Abstract)

This dissertation reports an analysis of the work roles of chief executive officers in small furniture manufacturing firms. Certain roles are operational - nature, while others are strategic in nature. The basic research question being addressed is: which work roles, if any, are perceived as more important to the position of a CEO in small furniture manufacturing firms? The subjects of this study consisted of ten CEOs of wood furniture manufacturing firms located in the state of Virginia.

The roles examined in this study were those described by Hemphill in his research on 93 executives from five manufacturing firms. The approach used in this study to model the judgment of the CEOs is called "Brunswiks Lens Model." This lens model approach provides a quantified, descriptive summary of the way an individual weighs and combines information.

The research design utilized in this study is a fixed 2^8 factorial ANOVA. Two basic analytical techniques were employed: correlation and ANOVA. An analysis of variance was performed on each CEO's set of

responses. All ten CEOs showed that there are significant differences in the relative importance of the eight roles being examined.

Fifteen operational hypotheses were tested for significance ($p < .10$) for each CEO. All 15 of the operational Hypotheses were rejected by seven of the CEOs. This indicated the importance they place on the strategically oriented roles. The remaining three CEOs perceived certain operational roles as being of primary importance.

Three potential explanations have been proffered to account for this preference toward strategically oriented roles by these CEOs. First, the static nature of the technology utilized in the wood furniture manufacturing industry may allow the CEO to focus more on strategic factors facing the firm. Second, the heavy competition within this industry may "force" the CEO to manage the firm strategically if they are to be successful. Third, every CEO who had a preference for strategically oriented roles were CEOs of their firm for a minimum of ten years.

Thus, there appears to be support to suggest that the relative importance of the operationally and strategically oriented work roles of CEOs may be largely <u>contingent</u> upon the technology utilized, competitive structure of the industry and the tenure of the CEO.