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Acquiring Small and Medium-Sized Companies: A Study of Corporate Decision Behavior

Daniel Joseph Power

ACQUIRING SMALL AND MEDIUM-SIZED COMPANIES:

A STUDY OF CORPORATE DECISION BEHAVIOR

A thesis submitted to the Graduate School of the University of Wisconsin-Madison in partial fulfillment of the requirements for the degree of Doctor of Philosophy

by

Daniel Joseph Power

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________________________ November 16, 1982
Major Professor **Date of Examination**

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Dean, Graduate School

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Daniel Joseph Power

Under the supervision of Professor George P. Huber

This field research study investigated corporate acquisition decisions made by managers in U.S. manufacturing and conglomerate firms.

The introductory chapters review organizational decision theories and empirical research on organizational and acquisition decision making. The thesis presents and investigates hypotheses for two descriptive models: a prediction model and a decision-process model.

Through mail questionnaires, data were gathered about 28 acquisitions completed between October 1, 1979 and March 31, 1980. Managers were asked for retrospective information about decision activities and for a current assessment of the acquired company's performance.

Twenty-six companies made the acquisitions: nine very large companies with 1979 sales of more than $450 million and seventeen smaller companies. Of the 28 acquired companies, 14 had 1979 sales of $1 to $10 million, 13 had sales of $10 to $35 million, and one had sales of more than $350 million.

The results of correlation and regression analyses indicate

that moderate levels of participation in acquisition subdecisions and direct contact with the prospect are related to successful acquisitions, but higher levels of both activities are related to lower levels of success. Also, increased participation did not increase the perceived effectiveness of implementation activities.

The amount of formal analytical activity and CEO involvement are not related to successful acquisitions. CEO involvement seems to depend on the size of the acquiring company, with CEOs in smaller companies more involved in making small and medium-sized acquisitions.

Managers use more complex and extensive decision processes when an unrelated business is investigated, but the process is apparently often ineffective. Firms that had made more acquisitions also had different decision processes, including lower levels of participation and less use of information sources. Both experience making acquisitions and acquiring a related business are good predictors of a successful acquisition.

Finally, a planned search for prospects is not related to more successful acquisitions. Only initiation by an unusual source alters the decision process, and then more CEO involvement and intensive search occur.

Professor George P. Huber

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Chapter 1

STUDYING CORPORATE ACQUISITION DECISION PROCESSES

Many American managers have chosen to increase sales and diversify the product lines of their companies by acquiring other companies. Thus, for them and their firms, buying companies is an important corporate strategy. However, approximately 20% of corporate acquisitions are perceived by the managers that made them as unsuccessful (cf., Acquisitions Horizons Survey results, Wall Street Journal, 1982). Given that significant failure rate and managers' commitment to the strategy, both managers and organizational theorists can potentially benefit from research that investigates the organizational decision processes that result in specific corporate acquisitions. Some decision processes may be both more effective, i.e., resulting in acquisitions that meet more organizational goals and needs, and more efficient, i.e., producing desired results with a lower expenditure of resources, than others. Also, some decision processes may be more appropriate in one type of organization or decision situation than in another. This thesis describes a research project that investigated these issues. The project focused on decision making about small and medium-sized acquisitions by manufacturing and conglomerate firms.

This first chapter contains an overview of and a specific perspective on merger and acquisition activity; it states and explains the study's major research questions, which are discussed in more detail in later chapters; it argues that research about acquisition decision processes is both necessary and important; it defines introductory terms and reviews the jargon of mergers and acquisitions; it presents three examples of corporate acquisition search and decision processes; and, finally, it previews the content of the remaining six chapters.

Perspective on Merger and Acquisition Activity

In the late 1970's, managers of American businesses turned to acquisitions and mergers to promote growth and diversity. This interest in acquisitions and mergers may have been caused by the increasing risks of new product development; or possibly by high inflation rates that made owning property more desirable than holding cash; or possibly for other reasons, including economic gain (cf., Cameron, 1977; Boucher, 1980). Some observers claim that 1977 marked the beginning of the fourth major merger/acquisition period in the United States since 1887 (Salter and Weinhold, 1979; Allen, Oliver, and Schwallie, 1981; Benston, 1980; Chavez, 1981; Curry, 1981). Scherer (1980) explains that "it is customary to distinguish three major merger waves that swept the American economy -- the first roughly between 1887 and 1904, the second between 1916 and 1929, and the third peaking in 1968 (p. 119)."

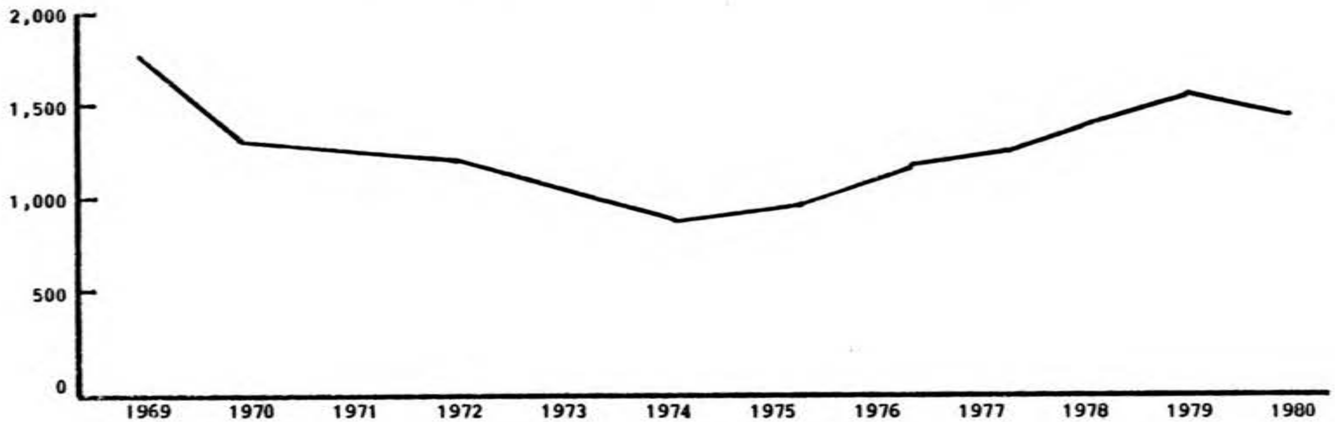
Although the actual number of acquisitions completed in 1979 was lower than the number completed in 1968, the number had increased from fewer than 1,000 a year in the mid-1970's to more than 1,400 in 1979 (see Figure 1.1). Perhaps more significantly, in 1979 the total yearly dollar value (not real dollar value) of all acquisitions had exceeded 1969 levels and the average real size of mergers and acquisitions for 1979-80 was more than double what it had been in 1969-70 (see Figure 1.2 from Allen, Oliver, and Schwallie, 1981; Chavez, 1981; W. T. Grimm & Co., 1981).

Controversy about the desirability of mergers and acquisitions has also increased. While evidence about the effects of mergers and acquisitions on corporate profits, economic efficiency, and concentration is inconclusive, there are some indications for concern (cf., Scherer, 1980). For example, a recent Business Week/Harris Poll survey of 600 high level corporate executives found that two thirds of them felt that most mergers and takeovers do more good than harm to the economic life of the United States (see Business Week, October 25, 1982, p. 18). But 200 executives did not agree with the statement.

Some managers and analysts feel that many of the mergers and acquisitions of the past 30 years have been complete or partial failures (Ansoff, Brandenburg, Portner, and Radosevich, 1971; Benston, 1980; Bradley and Korn, 1979; Chavez, 1981; Pfeffer and Salancik, 1978). Seed (in Bradley and Korn, 1981) notes that "the grim fact that one divestiture is announced for every two or three acquisitions suggests that corporate combinations - even when undertaken in the best of faith - are hazardous (p. 217)." Seed is probably overstating the incidence of acquisition failure and he

Figure 1.1

Number of Mergers and Acquisitions of U.S. Companies

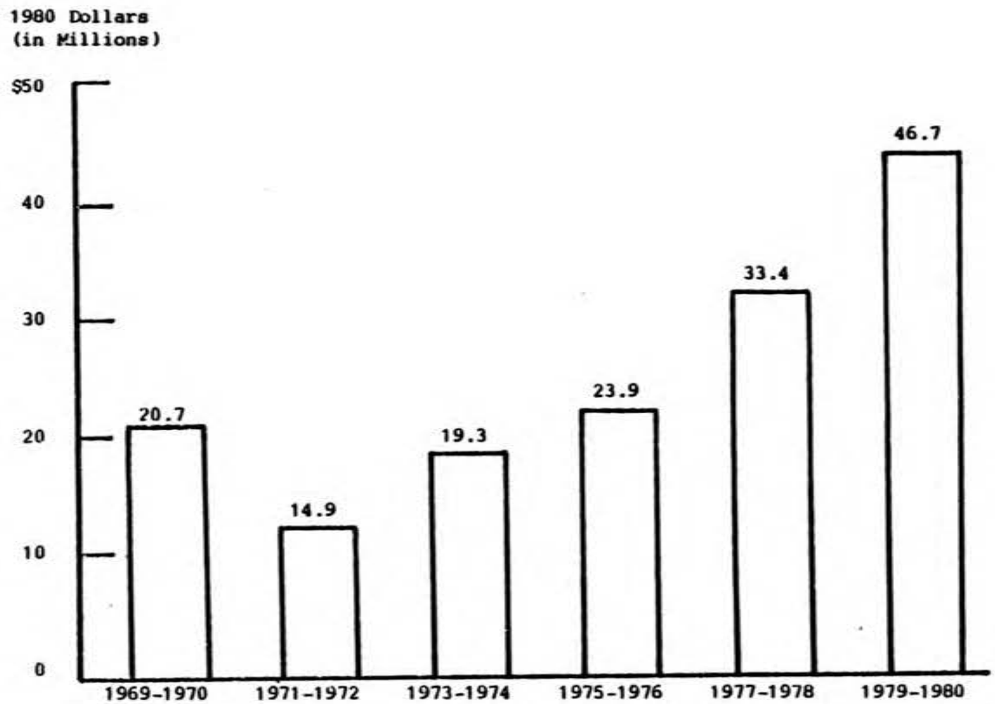


* Publicly announced/completed mergers and acquisitions with purchase price greater than $750,000 or 5 percent of acquired company

Data source: Allen, Oliver, and Schwallie (1981); <u>Mergers & Acquisitions: The Journal of Corporate Venture</u>

Figure 1.2

Average Real Size of Merger and Acquisition



* Publicly announced transactions of more than 10 percent of acquired company.
Data source: Allen, Oliver, and Schwallie (1981); W. T. Grimm

incorrectly equates divestiture with a failed acquisition, but his view highlights the concern that many people express.

But there is also evidence that managers were making better acquisition decisions in the late 1970's than they had in the past. For example, Bradley and Korn (1979) argue that "Today's merger activity is distinguished from that of the 1960's in several important respects:

--A more sophisticated corporate view, with far more intensive and realistic planning by management.

--Diversification is now related more to present activities than entirely new fields.

--More consideration by internal staff of long-term strategic objectives, alternate acquisition possibilities, and post-merger management issues."

Baker, Miller, and Ramsperger (1981) make a similar argument.

Although acquisition decision making may have improved, we must nevertheless predict that many acquisitions are likely to be complete or partial failures. Next year manufacturing and conglomerate firms will likely make more than 200 acquisitions of small and medium-sized companies. Small companies with sales ranging from $1 million to $10 million and medium-sized companies with sales of $10 million to $100 million are primary targets of acquisition activity. Some large companies with sales of $100 million to $1 billion are also acquired each year, and a few mega-mergers with $1 billion plus companies being acquired also occur infrequently. Yet many of these acquisitions will be judged as unsatisfactory, liquidated, or divested.

Why do some acquisitions fail? Bing (1980; p. 72-78) and Salter and Weinhold (1979) suggest the following causes: 1) improbable events; 2) buyer deceived; 3) buyer acquires what is available; 4) people opposed to the original deal sabotage implementation; 5) bad relations between executives at acquiring and acquired companies; 6) buyer does not understand business; 7) lack of agreed objectives; 8) unfulfilled buyer promises; 9) improper or unstable reporting relationships to buyer's organization; 10) unnecessary management changes; and 11) over-dependence on one executive. Many of these factors suggest that an important reason for failure is that managers do not effectively investigate and evaluate the acquisition prospect or plan its integration into the acquiring company.

Very little empirical evidence is currently available about which acquisition decision process is appropriate for a given situation. Too often managers are forced to rely on intuition, distilled experience, and unsystematically gathered information. Knowing what works and when is more a matter of luck than science. This research project is one step toward making the acquisition decision process more rational and systematic and therefore making the outcome of an acquisition more predictable. Through interviews, questionnaires, and a review of the literature on organizational and acquisition decision processes, this project examines the following primary question: What factors determine the differences in corporate acquisition processes and what are the consequences of those differences?

Explanation of Research Questions

In an examination of the corporate acquisition decision process, many questions need to be investigated. Some are more difficult to resolve than others and some need research more urgently than others. Following are the major questions posed in this study:

1) Do some decision process activities predict short-run success for an acquisition? Are some activities unrelated to success or related to failure?
2) How involved is the chief executive officer (CEO) in acquisition decision processes? Does the amount of CEO involvement predict success? Under what circumstances are CEOs involved?
3) Does participation in the decision process by the management team predict short-run success? When managers have participated in decision making, is implementation of the decision evaluated as more successful?

4) Do managers use more complex and extensive decision processes when an unrelated business is acquired?
5) Do managers who are experienced making acquisitions design and use substantially different decision processes than inexperienced managers?
6) Does the decision process differ when the organization initiates and plans a search for acquisition prospects as compared to when there is an unplanned initiation by the seller or a broker?

Most managers and acquisition specialists assume that the activities of managers do primarily determine the success of an acquisition (cf., Bing, 1980; Kellogg, 1975; Rockwell, 1968; Salter and Weinhold, 1981; Scharf, 1971; Short, 1967; Stotland, 1976). Many management theorists and theories provide additional support for this assumption, for example, management process theories (cf., Koontz, 1980), managerial role theory (Mintzberg, 1973; 1975) and strategic management (Hofer and Schendel, 1978; Schendel and Hofer, 1979).

Knowing what activities are important and necessary and who to involve in the process is, however, more problematic and more difficult to determine. Current knowledge about corporate acquisition decision processes is fragmentary and much of the descriptive research has been case studies and unsystematic interview studies with small numbers of managers recalling personal experiences and second-hand information about events 2 to 20 years prior to the study (see Chapter 3 for a review). Although more general research and theory on organizational decision making is relevant to answering some of the above questions, it is equally limited and perhaps more inconclusive as a guide to managers or organization scientists. Current theory and research are especially inadequate for explaining what factors determine decision process differences, the amount and type of differences in corporate acquisition decision processes, and the consequences of using different processes. No one research project can resolve all of these issues, but this project does investigate important research questions.

This project attempts to 1) identify factors or determinants that predict differences in the decision processes of businesses, and 2) evaluate the effect of different processes on the perceived success of acquisitions. Although many factors associated with the environment of the business, characteristics of the business, and characteristics of a specific decision situation may account for differences in acquisition decision processes, not all of them can be included in one study. The design of this study attempted to control for some of these factors. Others are explicitly measured and evaluated.

As noted, this research also explores the relationships between decision process variables and the short-run success of an acquisition. A number of alternative explanations and factors are considered as part of the analysis of this question. For example, the effects of implementation activities on the success of an acquisition must be taken into account. Also, some of the factors that account for differences in decision processes may also account for differences in short-run success.

Importance of the Research Project

The study reported in this thesis is potentially an important one for corporate managers, stockholders, and organization scientists for the following reasons: First, managers and stockholders may benefit through improved acquisition processes. Second, the study will contribute to much-needed strategic management research. Corporate acquisition decision processes is currently a neglected research area (see Duncan, 1979). Third, by focusing on one type of decision rather than examining many, this project can provide some tests of organizational decision-making theories and aid in extending and refining current theories.

On the first point, how can managers and stockholders benefit from the study? Evaluating an acquisition candidate often means large expenditures of time, money, and other resources. Actually acquiring another firm puts stockholders at risk for substantial losses. And the success or failure of the acquisition may affect the careers of many managers. The results of this specific study can aid managers when they plan and design acquisition programs. They can compare their planned activities to the information gathered about activities of other, similar firms that made acquisitions. Stockholders can benefit because knowledge derived from a systematically collected data base may improve the quality of acquisition programs and ultimately the value of the stockholder's investment.

On the second point, how can this study contribute to strategic management research? Many organization scientists recognize the benefits of additional strategic management research, but few research projects have examined strategic decision processes, specifically corporate acquisition decision processes. So this study can increase our understanding of strategic decision processes which can help us understand organizational strategy formulation (cf., Stein, 1981). Also, the project develops new research measures and discusses measurement issues. Additionally, this study helps broaden the domain of strategic management research and practice. Organization scientists in contrast to the financial specialists traditionally involved with mergers and acquisitions have the skills and knowledge to examine and perhaps recommend organizational decision processes.

Now to the third point, why is it desirable to study processes related to one type of decision in multiple organizations? Some of the variability associated with decision processes probably occurs because of differences in the type of decision, such as making a corporate acquisition versus making allocations of resources (Bower, 1970), and because of contextual factors, such as organization size, strategic risk of the decision, or experience making that type of decision. Determining what variability results from context variables is much easier if only one type of decision is studied and if multiple occurrences of the decision process in different organizations are measured. Studying one particular type of decision and its associated decision process can, therefore, clarify and expand current theories of organizational decision making.

Also, organization scientists can use the results of this research project to develop improved guidelines for designing acquisition decision processes. Current prescriptions for acquisition programs do not include contingencies like firm size and experience with making acquisition decisions or the relationship of process differences to success of acquisitions (see Paine and Power, 1982). Finally, this study provides information useful in refining and testing a descriptive acquisition decision process model that includes contingency variables.

Major Definitions and an Explanation of Merger and Acquisition Jargon

The language of mergers and acquisitions is often both colorful and confusing. This section defines three key concepts: mergers and acquisitions, organizational decision processes, and acquisition search and decision processes. Then some of the jargon of acquisition decision making is discussed. A common language built at this point can reduce misunderstandings and confusion in later chapters.

Mergers and Acquisitions

The concepts mergers and acquisitions are often used very casually among practioners. Mace and Montgomery (1962) note that the words merger, acquisition, and consolidation are sometimes used interchangeably. They were told that "when management representatives of an acquiring company talked with executives of a potential acquisition, the conversation was always in terms of 'merger' although it was implicit and apparent that Company A proposed to 'acquire' Company B. In these situations the negotiating executive of the acquiring company would discuss 'merger' with the management of the company to be acquired, but when he discussed the opportunity with his board of directors, he referred invariably to the possibility of 'acquisition' (p. 3)." In the early 1960's and today, the term merger seems to have an inoffensive quality not found in the term acquire.

A more technical distinction is made in laws related to mergers and consolidations. According to Clarkson, Miller and Blaire (1980, p. 716), a merger involves the legal combination of two or more corporations. After a merger, only one of the corporations continues to exist. In a consolidation, two or more corporations combine so that each corporation ceases to exist and a new one emerges. Acquisition is apparently not used to identify a type of legal combination.

Conglomerate mergers occur when the company acquired has customers and technology different from those of the buying company.

Conglomerate mergers result from what are often termed unrelated acquisitions.

Four major types of related acquisitions can be identified. A horizontal merger results when the acquired company is in the same industry as the buyer, with approximately the same customers and suppliers. Vertical integration occurs when a major supplier or customer is acquired. Concentric market or technology mergers can also occur. If the seller has the same customer types as the buyer, but a different technology, then a concentric market merger has occurred. If the technology is the same, but customers are different, then a concentric technology merger has occurred (cf., Kitching, 1967, p. 85).

The terms merger and acquisition are used interchangeably in succeeding chapters. Most often the term acquisition is used because larger companies in the study were purchasing small and medium-sized companies.

<u>Organizational Decision Process</u>

The terms decision making and organizational decision making are understood at an intuitive level by many people, but some clarification can help direct our attention to important issues. Shull, Delbecq, and Cummings (1970) define an organizational decision process as "...a conscious and human process, involving both individual and social phenomena, based upon factual and value premises, which includes a choice of one behavioral activity from among one or more alternatives with the intention of moving toward some desired state of affairs (p. 31)."

Decision making according to Simon (1960), "comprises three principal phases: finding occasions for making a decision; finding possible courses of action; and choosing among courses of action (p. 1)." Folsom (1962) discusses the complexity of the decision process. He says that many people think of decision making as something done by one person, e.g. the president of a company. Although he notes that it is often true that one executive is responsible for resolving a specific decision issue and must then support his decision, nevertheless, there is much more to the decision-making process. Folsom notes: "Decisions generally are the result of a long series of discussions by both line and staff people after the staff has collected the pertinent material. It is often hard to pinpoint the exact stage at which a decision is reached. More often than not, the decision comes about naturally during discussions, when the consensus seems to be reached among those whose judgment and opinion the executive seeks (p. 4)."

Huber's (1981) explanation of organizational decisions and decision processes also clarifies the phenomenon that is investigated in this research. He explains that "Organizational decisions are decisions made on behalf of the organization. The decision making units may be as small as an individual, e.g., a manager, or as large as the entire organizational membership. While personal goals often influence organizational decisions, the decisions themselves are legitimized to other units and agencies as fulfilling organizational needs (p. 2)."

Corporate Acquisition Search and Decision Process

For this research project, search and the decision process are separate phases (cf., Simon, 1960). Search is defined as an intentional process conducted by a buyer for locating acquisition prospects. The acquisition decision process begins when a potential buyer becomes aware of the acquisition prospect and ends when a formal decision is made to acquire the other company (called reaching an agreement-in-principal) or discontinue evaluation activities. Both the search and decision processes consist of specific activities of organizational members related respectively to finding and then to evaluating the acquisition prospect. The decision process includes a number of related decisions, e.g., to make direct contact with a prospect, to enter negotiations, and to chose the amount of a bid for the company. This study focused on the corporate acquisition decision process.

Jargon of Mergers and Acquisitions

Shoot-outs, marriages, and courtships are part of the jargon of mergers and acquisitions. Hirsch (1980) defines some of the more common colloquial terms used on occasion by investment bankers, brokers, acquisitions specialists and chief executive officers of companies. According to Hirsch, studying language helps one to understand organization relationships. Also language, especially jargon, is important to understanding the richness of corporate acquisition decision processes.

Two terms used frequently are buyer and seller. Buyers make acquisitions and sellers are acquired. The buyer is also sometimes called the surviving company, especially in hostile takeovers.

In friendly acquisitions both sides negotiate and reach a more or less harmonious accord for a sale. The managers of the selling company usually endorse friendly acquisitions to their shareholders. The decision process in these acquisitions is often described in terms of a matrimonial analogy. For example, courtship and dancing are used to describe the investigation activity of the buyer. Marrying means that an acquisition has been completed. Finally, the phrase "sex without marriage", according to Hirsch, means a company had extended negotiations for a friendly merger, but talks were eventually stopped. Merger brokers and investment bankers also get drawn into the analogy. They are sometimes called Cupid or matchmakers.

The language of hostile takeovers, where an unsolicited bid is made to shareholders by a company, is much more aggressive than the language of friendly mergers. The imagery is more from pirate, medieval, and Western stories than from marriage and courtship. The ambush and rape replace courtship and dancing. Black knights, unfriendly acquirers, joust with white knights, friendly acquirers. Sharks gobble little fishes. And brokers and investment bankers become hired guns and headhunters.

Examples of Acquisition Search and Decision Processes

A review of case studies and journalistic accounts in business publications suggests that there are many different approaches for finding and acquiring companies. Many of these differences will be discussed later, but a few examples of acquisition decision processes, at this point, can establish a perspective for evaluating the examples and results in later chapters. The following three examples of the decision processes at General Signal Corporation, at Trans Union Corporation, and at Chamberlain Manufacturing Corporation are therefore only illustrative and not representative of all acquisition decision processes. General Signal illustrates high CEO involvement; both Trans Union and Chamberlain illustrate more bureaucratic decision processes; all of the companies use formal analytical tools and search for information about prospects; all of the companies have made many acquisitions.

General Signal Corporation

Uttal (1980) examined acquisition decision making at General Signal in a Fortune magazine article. General Signal was originally a single-product company making railroad signals. It has been transformed by acquisitions into a conglomerate that now produces electric instruments, water-treatment equipment, and other sophisticated control products. The following discussion is based on that article (see pp. 58-64).

In 1980, the Chairman of the Board and CEO of General Signal was Nathan R. Owen. For the previous 20 years he had played a major role in acquisition decision making. Uttal sees Owen as the quintessential white knight rescuing companies from corporate raiders.

Apparently the respect given to Owen by many other managers has given his company a unique advantage in finding acquisition prospects. Uttal found that many managers seek out General Signal in hopes that their company will be acquired. He states that "As court of first resort for companies that have decided to sell out or have been forced to, General Signal gets to pick and choose. Each year, the Stamford, Connecticut, company looks at 100 to 200 prospective deals, including those it pursues on its own initiative. (p. 58)."

On the content of the acquisition search process, Uttal comments that Owen does not use finders and investment bankers, rather he does his own deals. Owen says he learned two other important lessons for making successful acquisitions: "'One was never to try to outsmart somebody in a deal--that makes for a bad marriage. The other was that unless you invest in good people, you are building your house on sand' (p. 59)."

Uttal reports that Owen has personally made 27 deals during a 20 year period. He provides an example of how Owen investigated industries prior to making acquisitions: Owen began thinking about water-pollution control in the late 1960's and he methodically studied the process of treating waste water, he broke the process into steps in order to isolate product niches. "Then he drew up short lists of the leading suppliers. Although he put out many feelers, Owen didn't make any major moves until 1972, when he picked up five companies involved in pollution control, adding more than $120 million to General Signal's sales (pp. 60,62)."

Uttal also provides an example of how Owen negotiated with companies and closed acquisition deals. He states that:

> Owen's patience and personality were critical in his efforts to take on 'high grade' companies. Fred Gordon, Mixing Equipment Co., the largest of the 1972 acquisitions, greeted Owen's advances coldly at first, partially because his company's growth rate was higher than General Signal's...But Owen kept at it for six months and finally won out. As Gordon puts it, 'Money had nothing to do with our decision to go with General Signal. We could have got more from any of the others. It was Nate Owen himself that made the difference. Instead of sending some flunky to promise us pie in the sky, he did all the negotiating himself.' (p. 62)

Nathan Owen and acquisition decision making were clearly inseparable at General Signal.

<u>Trans Union Corporation</u>

In 1979 William B. Howell, then the director of corporate development at Trans Union, wrote an article in <u>Management Review</u> on acquisition decision making at his company. In a few years Trans Union had acquired 42 small and medium-sized companies. Through acquisitions, Trans Union was transformed from a tank car company into a conglomerate. The following material is from his article (see pp. 37-40): Acquisition decision making at Trans Union is decentralized and analytical. Five people work at least part time on acquisitions. They all report directly to operating executives. The managers believe that detailed analysis of prospects is important.

Howell also comments on how acquisition prospects are identified at Trans Union. He says that intermediaries are rarely used, noting that of 42 deals, a broker was involved in only two. In both cases the brokers represented, and were paid by the seller (p. 38). Howell feels that "the services we are frequently offered by investment bankers are not always consistent with what we think we need...Another point intermediaries should understand is our attitude toward introductions. In Victorian England, a suitor needed a proper introduction if his intentions were to be considered honorable. But today the annual report of a public company is usually sufficient as an introduction. At Trans Union we've initiated many direct contacts with owners, and we've found them to be very responsive, even intrigued with our direct approach (p. 39)."

Howell says he recognizes that a methodical approach for identifying prospects may miss desirable opportunities. Therefore, if a finder or seller approaches Trans Union, the managers must decide "whether the pursuit of the idea justifies our time. Clearly, the less time required of us, the easier it is for us to pursue an opportunity (p. 39)."

Many of Howell's statements are normative and it is difficult to sort out what actually occurs at Trans Union. Following is his description of the acquisition program at Trans Union and his role in acquisitions:

> Our acquisition program ... emphasizes in-depth analysis, involves line management, and retains the initiative. But what do we do to make things happen? My goal is always to identify opportunities for top management and the board of directors. They judge for themselves how well these opportunities fit our skills and strengths. I identify industries that seem to merit our attention and study them at least to the point where we can tell if they have the basic characteristics we seek. If they do, and if there are only a few possible candidates in the business, we'll make some initial overtures to see if any are interested in joining us. If so, we can analyze the industry and the candidate concurrently. On the other hand, if there are many possible candidates, as, for example, in the life insurance field, we will probably go on to identify the most precise characteristics we'd like to obtain (p. 40).

The decision process at Trans Union seems to involve more staff work than the prior example at General Signal.

Chamberlain Manufacturing Corporation

In June 1981, Mr. John Sommers, president of Chamberlain, was interviewed about acquisition decision making to gain background information for designing the questionnaire developed for this study. At the time when most of Chamberlain's acquisitions were made, Sommers was a vice president of the company. Chamberlain used an acquisition strategy for many years to grow in sales from $15 million to more than $250 million. The managers at Chamberlain acquired mainly consumer-oriented manufacturing businesses. Chamberlain was itself acquired by a private holding company in the late 1970's.

Sommers noted that in the early stages of Chamberlain's acquisition program, only a very small group of managers were involved in making acquisitions, primarily the president and the chief financial officer. But as the company grew and gained experience, "we became much more formal in our approach to gauge what we wanted and we involved people primarily from the marketing area." And he pointed out that over time more people from personnel and the legal area got involved.

Sommers explained that an acquisition checklist was gradually developed. But he noted that it "is far more extensive and covers far more than we were really able to do for each and every acquisition candidate ... I don't think we ever did finish a whole checklist in terms of checking each and every item out." Managers at Chamberlain apparently developed a systematic evaluation process for prospects, but found it difficult and costly to apply.

Acquisition decision making at Chamberlain seemed to involve sequential choices, rather than a comparison of alternatives. Sommers said "I think only once did we really have two viable acquisition candidates going at the same time." Managers at Chamberlain apparently spent a great amount of time collecting information for evaluating the prospects. The "financial, personnel and the marketing people would all make their assessments. That information was then brought to the president and we would then make our recommendations of go or no-go, he would either agree or disagree. If he did agree, then we would set forth our data and go to the board of directors."

According to Sommers, once Chamberlain had made a number of acquisitions, the president became less involved in collecting information about prospects. In the early stages of an investigation, staff people were "digging out the details", but the CEO would get involved about 30 days into the investigation to get a progress report. He was apparently primarily interested in whether anything had been uncovered that would make the acquisition a no-go.

At Chamberlain, "people generally handle acquisitions in addition to their other duties," Sommers explained. He did mention that for a brief period of time the company had a director of planning who managed the search for and investigation of prospects. But apparently the results of that change in the acquisition process were unsatisfactory.

Sommers said that the "biggest key to a successful acquisition is defining the objectives that the company is seeking." And he noted that with greater experience making acquisition decisions, "you obviously don't stumble as many times." He gave two examples of "stumbles" made by managers at Chamberlain: 1) apparently labor contracts were not examined prior to an acquisition and for five years following the acquisition, Chamberlain was in court trying to settle labor issues raised by the National Labor Relations Board; and 2) on another occasion, "we really didn't pay enough attention to the fact that local management didn't want to stay on even though they said they did." Chamberlain ultimately lost a lot of time and money replacing the management of that company.

Implications

The acquisition decision process varies considerably in these three companies. All three companies made small and medium-sized acquisitions, but it seems that the amount of CEO involvement, the amount of analytical activity, the number of people involved in decision making and possibly the amount of information gathering varies from company to company. Part of the difference may be due to the perspective of the person describing the process. Uttal apparently received much of his information from Owen, the CEO. Howell reports his experiences as director of corporate development. And Sommers was primarily an observer of the process. It is possible that any of these men, especially Howell, may be emphasizing his own role and neglecting the many contributions of others. Although the bias that results from the perspective of the informant is an important source of error, the research project reported in later chapters systematically collected information from managers in 26 companies about some of the decision process differences that are evident in these three examples.

Preview of Future Chapters

Following is a summary of the remaining six chapters of the thesis:

Chapter 2 summarizes and critiques descriptive characterizations of the decision process and provides examples of each from acquisition decision situations. Five characterizations are explained: rational analytic; bureaucratic; political; incremental; and garbage can. Second, the chapter summarizes and critiques descriptive characteristics models of the decision process: the Snyder Model (1958); the Hage Model (1980) and the Bradford Group Model (Astley, Axelsson, Butler, Hickson and Wilson, 1981; Butler, Astley, Hickson, Mallory and Wilson, 1979). Third, in Chapter 2 descriptive phase and sequential models are reviewed. Both a general model of the decision process and specific models of the acquisition process are summarized and critiqued. Finally, an overall summary and critique of relevant theories and models is presented and the advantages of using the characteristics approach for this research project are discussed.

Chapter 3 is a review of empirical research on organizational and acquisition decision making. The chapter provides a short summary of research on organizational decision making and a summary of recent acquisition and merger case study evidence. It primarily summarizes and critiques research on corporate acquisition decision making.

Chapter 4 discusses the research hypotheses of this study. Two competing models: the prediction model and the decision-process model are presented and discussed. Three hypotheses are developed from the prediction model. Twenty four hypotheses are developed from the decision-process model. The decision-process model hypotheses incorporate five process concepts: the amount of formal analytical activity; the amount of intensive search for information about a prospect; the amount of discussion and participation in decision making; the amount of CEO involvement; and the duration of the decision process.

The research methodology is discussed in Chapter 5. The topics covered in the chapter include selection of companies and research design; data-collection procedures; sample and participant characteristics; discussion of measures for variables; and an overview of data analysis procedures for testing hypotheses. Finally, the limitations of the design, method, and measures and attempts to overcome them are discussed.

Chapter 6 presents the results of the research project. It summarizes descriptive information about the corporate acquisition decision process. Then the results of the tests of hypotheses are presented. Some information from interviews conducted as part of the overall study is also presented.

The final chapter, Chapter 7, presents conclusions and implications of the research project for organizational and corporate acquisition decision making. Both the implications for managing corporate acquisition programs and the implications for theories of organization decision making are discussed. Finally, needs for future research and additional research questions, methodological questions, and limitations of this research project are evaluated and summarized.

Chapter 2

AN EXPLANATION OF ACQUISITION DECISIONS WITHIN A THEORETICAL FRAMEWORK

The research questions presented in the previous chapter are derived from and extend prior research and theory about organizational and corporate acquisition decision processes. This chapter discusses the important links between corporate acquisition decision making and the theoretical foundations of decision making research. Although organizational decision making theories are at an early stage of development compared to the theoretical foundations of individual and group decision behavior, a number of "theories" have been proposed and serve as a foundation for this research project.

The chapter summarizes and critiques five descriptive characterizations of the organizational decision process and provides examples of each from acquisition decision situations. The following characterizations of the decision process are explained: rational analytic; bureaucratic; political; incremental; and garbage can. Second, the chapter summarizes and critiques descriptive decision process characteristics models: the Snyder Model (1958); the Hage Model (1980); and the Bradford Group Model (Astley et. al, 1981; Butler et. al, 1979). Third, in this chapter descriptive phase and sequential models are reviewed. Finally, the advantages of using the characterisitics approach for this research project are discussed.

There are many characterizations of how decisions are made in organizations, but relatively little has been written until recently about characteristics of the decision process. Also, some current models include contingencies that may effect the process characteristics, e.g., what occurs, when it occurs, who participates and the consequences of alternative processes. During the past 15 years there have been many contributions to the organizational decision making literature, yet there seems to be no current, comprehensive literature review. Also, the literature is difficult to use because there is no consensus among theorists about terminology or variables. The variety of interpretations by authors of what is supposedly the "same" model also causes confusion.

This chapter is not a comprehensive review and it does not resolve all problems of terminology or theory construction. Rather, its purpose is to generalize the ideas of many authors to help explain what factors affect the corporate acquisition decision process and to explain the consequences of different processes. The following summaries and interpretations of decision process characterizations, characteristics and phase and sequential models is based on both the original sources and recent summaries of parts of the literature by Chaffee (1981), Huber (1981), and Murray (1978-79).

A number of theorists, including Snyder (1958), Hage (1980) and Astley, Axelsson, Butler, Hickson and Wilson (1981), have attempted to change the emphasis of theory development from characterizations of the decision process, e.g. as a rational analytical process or a political process; to the development of models that explain and relate characteristics of the decision process. A characterization of an organizational decision process is not really a theory (cf., Dubin, 1978; Hage, 1972; Zetterberg, 1966). Those "theories" that are termed characterizations in this review are general descriptions of the organizational decision process that fail to adequately specify variables and relationships. Although the characteristics models do specify variables and relationships, current models are not as complete as normative standards for evaluating theories require. A change to a characteristics approach for theory development may facilitate empirical research and help resolve some of the inadequacies of current "theory".

Descriptive Decision Process Characterizations

Characterizations of organizational decision processes are valuable to review because they suggest the difficulties associated with measuring and interpreting organizational decision processes. Also, these characterizations are potentially descriptive of parts of any given organizational decision process and for some types of decisions, one characterization may be more appropriate than another. Also as Murray (1978-79) and Stein (1981) suggest, it may be possible to develop contingencies or independent variables that predict when one particular characterization is the most appropriate description of an organizational decision process. This research study can help identify contingencies for predicting when these characterizations are most appropriate. Also, interpreting the acquisition decision process in terms of these characterizations suggests hypotheses that should be tested.

Many authors have developed characterizations of the organizational decision process. For example, Lindblom (1959) characterized decision processes as either rational-comprehensive (synoptic) or incremental and he argued that an incremental characterization was most descriptive. Etzioni (1967) expanded on Lindblom's ideas and described a rationalistic, an incrementalist, and a mixed-scanning approach. Mixed-scanning had elements of both rationalistic and incrementalist approaches. Etzioni suggests that a mixed-scanning approach is most descriptive of the decision process for fundamental or important decisions and that all other decision making is best characterized as incremental.

Another political scientist, Allison (1969; 1971), uses three characterizations to study the Cuban Missile Crisis: the rational actor paradigm; organizational process paradigm; and bureaucratic politics paradigm. He concluded that all three were useful for understanding a specific, important organizational decision.

Mintzberg (1973) and Nutt (1976) present very different characterizations. Mintzberg identifies an entrepreneurial, adaptive and planning mode for decision making. Nutt identifies six models of organizational decision making: bureaucratic, normative decision theory; behavioral decision theory; group decision making; conflict-equilibrium and open system (similar to incremental).

Both Chaffee (1981) and Pfeffer (1981) are working with a similar typology. Chaffee identifies four models: a rational model where decisions are made by reasoned problem solving; a political model where decisions are made through conflict resolution, a bureaucratic model where decisions result from structured interaction patterns; and an organized anarchy or garbage can model where decisions occur more by accident than intention. Huber (1981) uses a similar set of characterizations: rational; political/competitive; garbage can; and program.

The five characterizations in this section are based primarily on the prior work of Huber, Pfeffer and Chaffee. The incremental characterization of Lindblom is also discussed. After the basic idea of each characterization is presented, each is interpreted in the context of the acquisition decision process. The five characterizations are called rational analytical, bureaucratic, political, incremental and garbage can. In all of these models, a process of decision making is assumed. Choice does not happen at a precise point in time. But our attention is directed toward the activities and events that preceed a choice. Each characterization or model helps explain why a specific choice is made. All of the characterizations recognize that the decision process occurs over a period of time, involves multiple organizational actors and events.

Rational Analytical Characterization

Both rationality and logical analysis are highly valued by Western culture in the late 20th Century. A vast amount of literature has been written about the phenomenon and its applications and consequences. The literature on rational decision making, including business decision making, is large. Also, many specialized tools have been developed to support it, including decision theory, systems analysis, and zero-based budgeting.

The rational analytical characterization is a mixture of both descriptive and prescriptive theory. Huber defines a rational action process model where organizational units purposely use information to rationally make choices on behalf of the organization. The rational analytical characterization presumes that managers apply reasoning and analysis in an attempt to maximize valued organizational outcomes, like profits. The rational analytical characterization does not state that organizational decisions are actually rational or optimal, but rather that decision makers act in an intendedly rational manner.

This limitation of intended rationality rather than global rationality is based on Herbert Simon's (1976) work on bounded rationality. He suggests that there are limitations on rational action for individuals. In an organization the bounds on rationality are probably much less restrictive than they are for individuals because managers can remove some boundaries by involving experts, by using extensive information processing, and by using complex decision models and tools. Boundaries still exist that limit the rationality of organizational decision making. Many people believe that decision makers using the rational approach reach a consensus of values and preferences before making decisions. Chaffee (1981) discusses this issue and suggests that if managers are trying to reach a consensus of values and preferences, that fact provides an indication that an organization is following the rational model. In the case of an acquisition, managers often believe they are trying to maximize a criterion like return on investment or profit. They may believe they are making decisions rationally. Also, organizations that make comparisons of alternatives to a set of criteria and that consider an array of alternatives simultaneously, can probably be best characterized as making rational analytical decisions.

Choice in the rational analytical characterization, is perceived as deliberate and identifiable. Chaffee (1981) notes that when, how, and by whom a decision is made should be identifiable. Some corporate acquisition decision processes seem to have at least some characteristics that suggest that they can be characterized as rational and analytical. In some organizations and for at least some acquisition decisions, a number of companies are being evaluated simultaneously during the search process and decision makers seem able to specify the criteria used for evaluating alternatives. Also, the choice among alternatives seems to have been a deliberate action and when, how and by whom the decision was made can be identified.

Leontiades (1980) provides an example that indicates a rational analytical characterization is sometimes appropriate. He feels that the acquisition movement has entered a period of increased 'rationality'; and that the judgmental basis for making unrelated mergers in the 1960s is no longer adequate. Leontiades provides an example of Fuqua Industries. He states "it is still a company diversifying and divesting--but with a difference. It is now pursuing defined 'operational acquisitions': those additions which will fill specific needs and take advantage of complementary strengths (p. 11)."

Rappaport (1979) provides additional evidence of rational analytical activity. He states "Recently Business Week reported that as many as half of the major acquisition-minded companies are relying extensively on the discounted cash flow (DCF) technique to analyze acquisitions (p. 101)."

The Dresser Industries case in Paine and Naumes (1982) provides another example.

> Dresser required detailed information concerning all aspects of proposed acquisitions. Some key areas of interest include legal, financial and market information.
>
> The legal department must review the organizational structure, Securities and Exchange Commission filings, existing contracts and employee benefit programs of the firm as well as any antitrust considerations. A preliminary antitrust screening is conducted prior to any other information collection.
>
> Financial data must be current, accurate and reflect the company's financial position within its respective industry and as a separate entity. All relevant financial statements are audited, and significant accounting policies-such as inventory valuation, depreciation methods and research and development costing-are analyzed.
>
> Market information centers around the firms's marketing mix: its products and services, methods of promotion, channels of distribution and pricing policies. Additionally, competitors and customers are evaluated on both short-run and long-run bases.
>
> After considerable time and effort, Dresser synthesizes these and countless other pieces of information into an acquisition decision (p. 491).

Finally, the Omark Industries Case (Stanford,1979) provides another example that further suggests that acquisition decision making is sometimes, if not often, both rational and analytical. The author states, "Omark's management had recently published a written statement of corporate purpose, objectives, and philosophies (p. 259)." And he explains that for a specific acquisition prospect, RCBS, projections "were made by Omark at three confidence levels: 10%, 50%, and 90%. A summary of these projections was in the booklet to the board...,along with an estimate of the effect on EPS of Omark....In this connection, an internal rate of return and return on assets (constant $) was projected by Omark (p. 262)."

Bureaucratic Process Characterization

The rational analytic and the bureaucratic process characterization have some similarities and it is possible that as a decision issue becomes routinized and "rationalized", the bureaucratic characterization becomes the better description of the process. It is plausible that rational actions taken when managers were initially confronted with a specific type of decision are transformed into the programs and procedures that identify the bureaucratic characterization. Crozier (1964) explains the possible link between rational analytic and bureaucratic processes. He states, "The invasion of all domains by rationality, of course, gives power to the expert who is the agent of this progress. But the experts' success is constantly self-defeating. The rationalization process gives him power, but the end results of rationalization curtail this power. As soon as a field is well covered, as soon as the first intuitions and innovations can be translated into rules and programs, the experts' power disappears (p. 165)."

Chaffee (1981) identifies a bureaucratic model and she equates it to Allison's (1971) Organizational Process Model. Huber's program model is also similar to what is called a bureaucratic characterization. According to Huber (1981), in the program model organizational decisions are consequences of the programs and programming of the unit involved. The decision process is characterized as following a set of programs and these programs can be identified. These programs are also sometimes called standard operating procedures (SOPs) and the programs or SOPs are the major determinants of the decision that occurs. For a specific decision a number of standard operating procedures may be used to either provide information, evaluate or process information or arrive at a choice among alternatives. In this model, according to Chaffee (1981), "problems are not perceived intrinsically, but in terms of the way the organization happens to be structured. New alternatives are relatively unlikely to surface and solutions produced by any given routine tend to resemble one another over time, building a kind of tradition (p. 28)."

Decision makers apparently repeat past procedures because they appear to work. Also, similar decisions will follow similar processes within a given organization. The quality of decisions that result from this bureaucratic process depend on the quality of the procedures and programs used within a given organization. The actual programs used within one organization depend upon the organizational learning that occurs and the participants brought into the organization from other organizations who transfer their prior learning to the new organization. For the bureaucratic characterization it should be possible to identify the application of a number of standard procedures for a decision task. Also, there should be clear procedures for allocating participants and procedures to a specific decision task.

The Trans Union and Chamberlain examples of acquisition decision processes presented in the first chapter are perhaps best characterized as bureaucratic.

Political Process Characterization

Characterizing organizational decision making as a political process has been very popular in the last few years (cf., Pfeffer, 1980). If a decision process is characterized as political, one implies that the participants in the decision process have conflicting values and objectives related to that decision and that decisions are determined by the self-interest of the persons involved, rather than by the interest of the organization. Huber (1981) states that in the political/competitive model "organizational decisions are the consequences of the application of strategies and tactics by units seeking to influence decision processes in directions that will result in choices favorable to themselves (p. 3)." When two or more actors are involved, it is possible that the decision process will become political. Also, one participant may use power to force acceptance of his views. Power according to Pfeffer (1980) is the ability to get others to do what you want them to do.

Actually determining that a decision process is political is difficult. Examples of the use of power would help support the claim that the process is political. Also, examples of information distortion and possibly examples of conflicts and disputes would also indicate that the process is political rather than rational or bureaucratic. But, much political behavior is hidden by organizational norms of rationality (March and Simon, 1958). Therefore, it is very difficult to definitively state that a process is political rather than rational or bureaucratic. Corporate acquisition decision processes, at least in some cases, appear to be political. In large corporations there are examples where one manager supports an acquisition because that company will be assigned to his or her division and that may give him power or prestige. Another manager may fight the same acquisition because he feels that the acquisition would enhance the power and prestige of the first manager. Also, CEOs may purchase firms because of their personal values rather than because the firm fits in with the needs of the company and is an economically rational decision to make. A number of examples of politics in corporate acquisition decision making appear in the literature.

For example, Crane (1966) states "A great deal of detailed analysis may be performed on information concerning the prospects....However, the final decisions frequently seem to be based largely on politics or on "feelings" about certain companies, rather than on sound, logical considerations. The detailed analysis may not be used adequately in the final decision at the board of directors level because of the natural difficulty of digesting the volume of paper and untangling the many interlaced decision elements in relatively infrequent and brief board meeting (p. 581-2)."

The role of personal values and organizational politics in the corporate acquisition decision process is also noted by O'Connor (1980, p. 15). She states "In addition to the chief executive, other members of top management influence the corporate development organization by the personal biases they bring to corporate strategy decisions. These are largely based on their own previous successes and failures, training, education and history of the organization as well. And even though definitive objectives and guidelines are laid out, they may be skirted when it comes to the final decision, some survey participants reveal. In some cases, strategic objectives are not really defined in order to avoid the discomfort of justifying a decision that is purely the bias of a key executive."

Finally, Bing (1980) states "A wise planning or acquisition executive will recommend companies for acquisition that accommodate the CEO's desires, whims, and preferences. The ultimate political acquisition may be the leading industry either in the CEO's hometown or the town where he went to college (p. 9)." And Bing (1980) notes that "Few acquisitions are ever made in which someone in the buying organization does not question the wisdom of an acquisition. The opposition may be open and hostile or subtle and restrained in the probably correct belief that vigorous opposition would be detrimental to their careers. A CEO enthused (sic) about an acquisition is more likely to consider those opposed as having doubtful loyalty and low intelligence instead of being vigilant executives advocating and protecting the buyer's best interest (p. 32)."

Incremental Characterization

Lindblom (1959) explains the incremental characterization and method of successive limited comparisons. He states that it involves:

1) Selection of value goals and empirical analysis of the needed action are not distinct from one another but are closely intertwined.

2) Since means and ends are not distinct, means-end analysis is often inappropriate or limited.

3) The test of a "good" policy is typically that various analysts find themselves directly agreeing that it is the most appropriate means to an agreed objective.

4) Analysis is drastically limited:
   i) important possible outcomes are neglected
   ii) important alternative potential policies are neglected
   iii) important affected values are neglected

5) A succession of comparisons greatly reduces or eliminates reliance on theory.

When the incremental characterization is formulated in this way, the following indicators suggest an incremental decision process: goals are not formulated prior to identification of an acquisition prospect; agreement of participants, especially experts, is stressed in the process; and few analytical tools are used to evaluate prospects.

A possible example of a firm where decision making may be characterized as incremental is Gulf and Western. According to a case in Paine and Naumes (1982), Gulf and Western will not make acquisitions that are actively, and vocally, opposed by relatively important groups such as regulators or management of the firm to be acquired. Also, Gulf and Western emphasizes management strengths in acquisition analysis. The potential for future profits for the industry are also considered.

Richard Smith, president of General Cinema, provides another example. He says "I am doing most of the worrying about diversification myself. The process is time-consuming; it took 15 months to work out the first soft-drink acquisition. We don't have a planning or corporate development office at General Cinema. It doesn't make much sense when you are looking for only one opportunity (Uyterhoever, Ackerman, and Rosenblum, 1977,p. 459)." He apparently seeks consensus and uses few analytical tools.

Perhaps the best example of an incremental approach is decision making at Marriott. In a recent article (Shapiro, 1982), J. W. "Bill" Marriott called the company's recent acquisition of the Host chain of airport restaurants and gift shops so obvious that it was 'a no-brainer' (p. 9)." And Shapiro implies that Bill Marriott's interest in fast boats and things nautical prompted the company to buy the Sun Lines cruise ships. Bill Marriott termed that acquisition "...a big mistake. We thought it was floating hotels. It's not." Sun Lines is profitable, but, Marriott says, "it's not a business we can grow in (p. 19)."

These three examples are not clear indicators of an incremental approach. However, Gulf and Western's limited analysis, the focus on a single opportunity by Smith at General Cinema, and the limited analysis and perhaps lack of clear goals at Marriott, do suggest the decision process may have been incremental. In the case of Marriott, the process may also be characterized as political.

Garbage Can Characterization

In the Garbage Can characterization, activities occur, but they are not predictable, participants select themselves for decision processes, participants come and go during the process, work on some activities, leave but may return, and choice is a fortuitous coming together of solutions, problems and participants.

Characterizing a decision process as haphazard or what Chaffee (1981) says is an accident of timing and interest is repulsive to many managers and management theorists. But they are perhaps guided more by the normative literature than by actual instances of behavior in organizations. Decision processes characterized as garbage cans involve opportunistic behavior in that a decision occurs because there is some fortuitous intersection of problems looking for solutions, solutions looking for problems, and an opportunity for making a decision.

Cohen, March and Olsen (1972) originated the idea of the garbage can characterization. They state "Although organizations can often be viewed conveniently as vehicles for solving well defined problems or structures within which conflict is resolved through bargaining, they also provide sets of procedures through which participants arrive at an interpretation of what they are doing and what they have done while in the process of doing it. From this point of view, an organization is a collection of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be the answer, and decision makers looking for work (p. 2)."

Salter and Weinhold (1979) provide some evidence that the garbage can characterization is appropriate for acquisition decisions. They state that diversification through acquistion may take only weeks to execute. "While such a strategy can be the result of detailed planning, it often is not. Acquisition candidates tend to become available without advance notice. Favorable environmental conditions - such as the state of the equity market - can develop and disappear without a clear warning signal. Unexpected competitive bids for previously identified acquisition candidates can often raise both the 'ante' and the pressure for corporate strategists. Swift, decisive action - not sustained planning - is thus a hallmark of many diversifying acquisitions (p. 4)."

Christensen, Andrews, and Bower (1978) state "..sudden opportunity or major tactical decisions may intrude to distract attention from distant goals to immediate gain. Thus the opportunity for a computer firm to merge with a large finance company may seem too good to pass up, but the strategy of the company will change with the acquisition or its ability to implement its strategy will be affected. A strategy may suddenly be rationalized to mean something very different from what was originally intended because of the opportunism which at the beginning of this book we declared the conceptual enemy of strategy. The necessity to accommodate unexpected opportunity in the course of continuous strategic decision is a crucial aspect of process (p. 760)."

Finally, Bradley and Korn (1981) note "...that issues of personal chemistry, chance occurrences, and subjective influences - including the actions and opinions of peers - are usually as important as rational quantitative analysis in making a final corporate decision regarding an acquisition or merger (p. 213)."

<u>Critique of Characterization Approach</u>

The characterization approach stereotypes decision making and offers little insight for changing or improving decision processes. Also, despite some factors that may indicate that a specific categorization is most appropriate for a given decision process, actually classifying decision processes is difficult. The incremental characterization is especially difficult to apply to single decisions. Also, having five discrete characterizations makes it difficult to state that part of a decision process is bureaucratic while another part is political. An absence of contingency factors in characterization theories also limits the utility of this approach.

Descriptive Decision Process Characteristics Models

Another approach to evaluating decision processes is to measure characteristics of the process. Acquisition decision processes may have characteristics that differ systematically depending upon the context of the decision. Also, some characteristics of the acquisition decision process may be unique or clearly identifiable with acquisition decision making. Finally, some characteristics may predict the success of acquisitions.

Duncan (1974) develops and tests a model that links characteristics of a decision-unit's environment to five structural characteristics of the unit: 1) hierarchy of authority; 2) degree of impersonality; 3) degree of participation in decision making; 4) degree of specific rules and procedures; and 5) degree of division of labor. This model has some similarities to the three models presented in more detail in this section. Duncan's model may be useful in characterizing acquisition and corporate development units in organizations that have them. Also, some of the concepts are relevant for characterizing acquisition decision processes.

Now let's examine in some detail the characteristics models of Snyder (1958), Hage (1980), and the Bradford Group (1981).

Snyder Model

Snyder (1958) develops a decision making approach for studying political phenomena. In his paper, he identifies factors that may explain decision making behavior. He makes only a limited contribution to the development of concepts of decision process content. His major contribution is a typology of decision situations. Snyder argues that three key variables, in addition to the decision situation, explain decision-making behavior: spheres of competence, including specialized functions, authority relations, basis of participation and reciprocal expectations; communication and information; and motivation of the decision makers, including personality of decision makers.

Snyder's analysis emphasizes the interaction of the decision-maker with the various elements of the situation. He suggests this interaction affects the decision makers' scale of preference and the set of rules that govern the actions of the decision-makers, e.g., the manner in which alternative choices are presented and the procedure for voting.

According to Snyder a "situation" is an analytical concept that points to a "pattern of relationships among events, objects, conditions, and other actors organized around a focus (objective, problem, course of action) which is the center of interest for the decision-makers (p. 18)." He presents the following typology for classifying decision situations:

a) Structured vs. unstructured situations - the relative degree of ambiguity and stability

b) Situations having different degrees of requiredness - the amount of pressure to act and its source

c) The cruciality of situations - their relatedness to, and importance for, the basic purposes and values of the decision-makers

d) Kinds of affect with which the situation is endowed by the decision-makers - threatening, hostile

e) How the problem is interpreted and how its major functional characteristic is assigned - political, moral, economical, military, or a combination of these

f) The time dimension - the degree of permanence attributed to various situations

g) The degree to which objective factors impose themselves on the decision-makers - the number of uncontrollable factors and imponderables

He says of this typology, that "perhaps the chief advantage of such a breakdown is to remind us of the fact that certain objective properties of a situation will be partly responsible for the reactions and orientations of the decision-makers and that the assignment of properties to a situation by the decision-makers is indicative of clues to the rules which may have governed their particular responses (p. 18)."

Hage Model

According to Hage (1980) "Whether the decision is of high or low risk, it goes through a process. To analyze this process, it might be useful to think of the decision-issue as having a trajectory. This trajectory passes from individual to committee to individual to staff meeting and the like (p. 116)." Hage argues the process by which decisions are made can be predicted even if it appears to be a highly unique phenomenon.

Hage defines the following thirteen characteristics of a single decision trajectory: 1) The degree of routinization is the extent to which specified steps in the process are defined and used; 2) The degree of delegation is the extent to which the bulk of the process occurs at lower echelons; 3) Duration is the length of time between the first proposal and final decision outcome; 4) The intensity of participation is the amount of effort each interest group expends; 5) The amount of discussion is the amount of time spent considering verbally the decision-issue; 6) The extensity of participation is the number of interest groups involved; 7) The amount of information search is the extent to which the interest groups seek facts relative to a decision-issue; 8) The stability of coalition refers to the extent of change in the combination; 9) The amount of joint creation is the extent to which the final decision outcome is the product of the ideas of various interest groups and/or individuals; 10) The amount of negotiations is the amount of time spent bargaining; 11) The amount of deliberate delay is the amount of time spent in avoiding a final decision; 12) The amount of conflict is the extent of disagreement among the interest groups; and 13) The duration of conflict is the amount of time the disagreement continues.

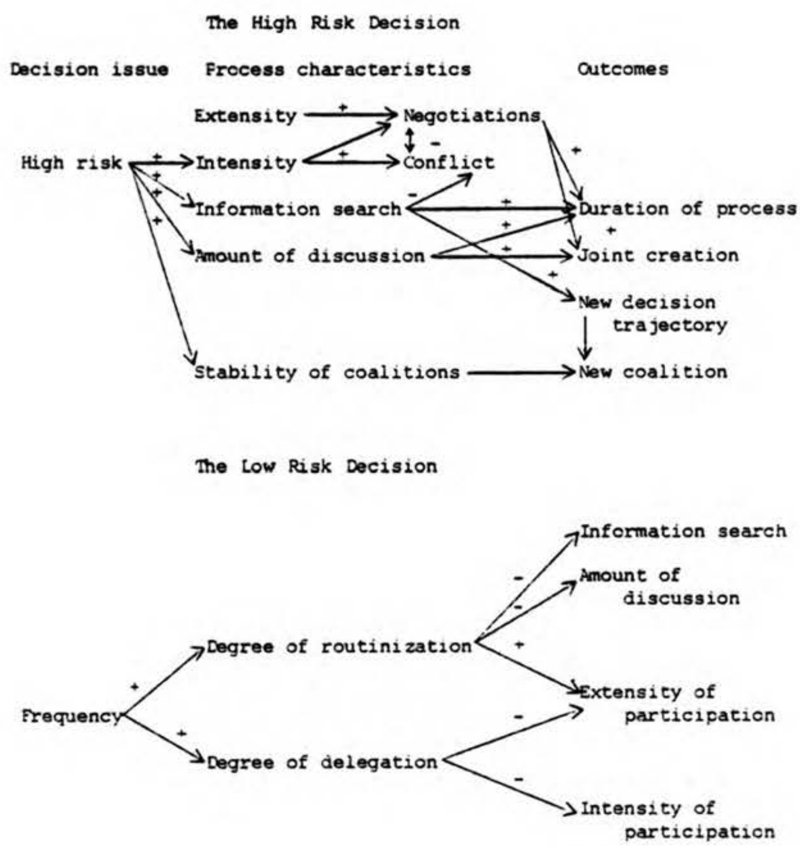
Hage also develops a model (see Figure 2.1) for what he calls a single decision trajectory. Two variables determine the content of the decision process in his model: risk and frequency of the decision.

For high risk decisions, Hage hypothesizes that high risk of the decision-issue is positively related to intensity of information search, amount of discussion and stability of coalitions. Duration of the process and amount of joint creation are considered outcomes in Hage's model and both are positively related to information search and the amount of discussion. The model has a number of other relationships.

Low risk decisions, according to Hage, have different decision processes that are determined by the frequency of occurrence of the decision issue. Frequency is positively related to the degree of

FIGURE 2.1

Hage's Decision Characteristics Model



See Hage (1980), Figure 4.3, p. 121

routinization and delegation. Routinization is negatively related to information search and the amount of discussion, but positively related to extensity of participation. Degree of delegation is negatively related to extensity of participation and intensity of participation.

The Bradford Group Model

Astley, Axelson, Butler, Hickson and Wilson (1981), a group of researchers at the University of Bradford, argue that there are two fundamental factors that explain the nature of decision making: the task complexity of the decision and the political cleavage of the interests involved. They think that separately and jointly these factors explain the content of the decision making process.

The Bradford Group defines complexity as the extent to which the topic of the decision making process in intricate, is made up of multiple considerations and is difficult to evaluate. They think that complexity may be measured by a combination of indicators: by the rarity or novelty of a topic, by the precision or specificity of the criteria for evaluating a topic, and by the clarity of the definition of the topic.

They define cleavage, a word taken from political science where it denotes divisions in a community, as the extent to which interested parties to the decision tend to split apart. They think that cleavage may be measured by: the number of objectives represented by interest groups involved in a decision; the disparities between interest groups; and the distribution of influence. They note that the two concepts of complexity and cleavage are related and interact. For example a more complex topic might draw in more interest groups, and more interest groups may make the matter more complex.

They hypothesize that complexity and cleavage explain the content of the decision-making process. Astley et. al (1981) build on the work of Butler et al. (1979,80) to define concepts related to the content of the decision process. Their purpose is to develop an arena theory of the decision process. They state "the term arena is used because the theory deals with all kinds of processes and not only those that proceed through bargaining. It denotes that sphere of action energized by the identification of the decision topic (pp. 9-10)."

The Bradford group defines the following concepts associated with the content of a decision process: Scrutiny is the degree of effort given to collecting, examining, and diagnosing information; Negotiation is the degree to which involved interest units interact in the arena to obtain mutual accommodation; Discontinuity is the degree to which decision making is subject to disruptions, delays and reconsideration; Routinization is the extent to which specific steps in the process are defined and used and the precedent for decision making; four characteristics of outcomes are also identified, rapidity, incrementality, optimality and crescivity. A crescive process is one that occurs without a premeditated plan, participants cannot predict where the decision process will lead. It seems possible but difficult to measure these outcome variables.

Critique of the Characteristics Models

Characteristics models are relevant for evaluating corporate acquisition decision processes. The examples in the first chapter suggest that processes in different companies may have different characteristics. The acquisition decision situation can be characterized along Snyder's dimensions or in terms of risk or frequency from the Hage model.

None of the current models however, are directly testable in there entirety in the context of a study of corporate acquisition decision processes. Also, the large number of concepts makes it difficult to include all of them in one study.

Descriptive Phase and Sequential Models

In phase models activities can be grouped into discrete phases; certain phases occur; there may be cycling among phases, activities may be repeated; activities are not necessarily continuous; activities cross levels in the organization hierarchy; and some control mechanism determines what activities occur and when (e.g., managers, policies).

Both a general decision process phase model and more specific sequential models of the corporate acquisition search and decision process are discussed in this section.

Mintzberg General Decision Process Model

Mintzberg, Raisinghani, and Theoret (1976) develop a general decision process model. They categorize decisions (a) by the stimuli that evoked them, (b) by their solutions, and (c) by the process used to arrive at them. The material that follows is from their paper.

Decisions may be categorized as opportunity decisions, those initiated on a purely voluntary basis, to improve an already secure situation, such as a financially healthy firm that intentionally finds and purchases a company. At the other extreme are crisis decisions, where an organization responds to intense pressure. Here a severe situation demands immediate actions, for instance, seeking a merger to avoid bankruptcy. Thus, opportunity and crisis decisions may be considered to form the two ends of a continuum. Problem decisions are then defined as those that fall in between, stimulated by milder pressures than crises. For example, when a seller approaches a buyer.

Decisions may be classified by the type of solution. First, the solution may be fully-developed at the start of the process which happens when a seller approaches a buyer. Second, they may be found fully-developed in the environment during the search process, as is the case when firms have a planned search for acquisitions. Third, custom-made solutions may be developed especially for the decision which may be the case when only part of a company is acquired. Finally, the solution may combine ready-made and custom-made features - ready-made solutions are modified to fit particular situations, such as modifying purchase agreements and terms of a merger. In acquisition situations the last two types of solutions are probably collapsed into one category.

Decision processes have a number of phases. The identification phase comprises two routines: decision recognition, in which opportunities, problems, and crises are recognized and evoke decision activity; and diagnosis, in which managers seek to comprehend the factors that initiate the process and determine cause-effect relationships for that particular decision situation.

According to Mintzberg et al., the heart of the decision-making process is the set of activities that leads to the development of one or more solutions to a problem or crisis or that elaborate an opportunity. Development activities are described in terms of two basic routines, search and design. Search is evoked to find ready-made solutions; design is used to develop custom-made solutions or to modify ready-made ones. Search is most relevant to the acquisition decision process.

Selection is logically considered to be the last step in the decision process: however, because the development phase frequently involves a series of subdecisions, each requiring at least one selection step, a decision process could involve many selection steps. Many subdecisions occur during an acquisition decision process, e.g., to make contact, to make an offer.

Selection is best described in terms of screen, evaluation-choice, and authorization, it is typically a multistage, iterative process, involving a "progressively deepening" investigation of alternatives. Two patterns of the three routines seem to occur. First, the selection routines are applied sequentially to a single choice. Screening is used to reduce a large number of ready-made alternatives to a few feasible alternatives and to select a course of action; finally, authorization is used to ratify the chosen course of action at a higher level in the organizational hierarchy. In the second pattern, a single selection step is itself multistage or nested. All alternatives may be evaluated in a general way, then in succeedingly more intense ways, or one choice can be subject to authorization at successively higher level in the organization. Acquisition decision processes could conceivably follow either pattern.

The evaluation-choice routine may be considered to use three modes: judgment, bargaining, and analysis. In judgment, one individual makes a choice using procedures that he does not, and perhaps cannot, explain; in bargaining, selection is made by a group of decision makers with conflicting goal systems, each exercising judgment; and in analysis, factual evaluation is carried out, generally by technocrats, followed by managerial choice using either a judgment or bargaining approah. These three approaches have similarities to the decision process characterizations discussed earlier in this chapter.

Judgment according to Mintzberg et al., seems to be the favored mode of selection. They speculate that judgment is used because it is the fastest, most convenient, and least stressful of the three; they feel this mode is especially suited to the kinds of data found in strategic decision situations. Bargaining is also common.

Three routines to support the decision process are also described: decision control; communication; and political routines. A number of dynamic factors associated with decision processes are also discussed: interruptions caused by environmental forces; timing delays and speedups; feedback delays while waiting for information; comprehension cycles to understand and process information; and failure recycles that occur when problems are encountered. All of these dynamic factors seem relevant to acquisition decision processes.

This general model helps one understand some of the dynamics of the corporate acquisition decision process. The more specific models that follow provide additional details of the process.

Acquisition Search and Decision Process Models

Four models of the acquisition decision process are presented in this section, i.e., the Fogg, Bradley and Korn, Parsons and Baumgartner, and Boucher models. The models have many similarities and they seem representative of the many models in the literature. Different terms, sequences and number of steps are used in the models, but the redundancy and repetition of concepts suggests that some activities commonly occur in acquisition search and decision processes.

Fogg Model. According to Fogg (1976) assuming that the opportunity identification stage of planning has been completed; that industries suitable for acquisition have been identified; that adequate prescreening has occurred; and that established criteria have been met. "Then the steps in the acquisition process are: (1) preliminary market research; (2) set criteria for acceptance of a candidate; (3) identification of candidates; (4) ranking of candidates--preliminary screening; (5) initial contact with prime candidate; (6) detailed information collection (a) internal to the candidate (b) external information; (7) financial and market analysis; (8) negotiation and agreement in principle; (9) confirmation studies of (a) market information, and (b) internal data and assumptions; (10) closing (p. 95)." This model seems more prescriptive than descriptive, only steps 5 through 10 seem to occur in most acquisition decisions. Steps 1 to 4 may occur when a formal search is used to identify prospects.

Bradley and Korn Model. Bradley and Korn (1981, p. 212) propose the following protocol for the acquisition process: 1) Determinative stage where managers clarify and state acquisition objectives and determine top mangement and board commitment; 2) Scouting stage in which managers search for and/or otherwise identify acquisition candidates and make initial candidate assessments; 3) Consultation stage where manangers in the acquiring company consult with outside legal, accounting, banking and other professionals; 4) Strategic stage where top managers and staff determine the impact of the transaction on both parties and managers in the acquiring company, develop a negotiating strategy and a more detailed company analysis; 5) Sensor stage in which managers determine likely potential interest by direct or indirect contact; 6) Vamp stage where managers carry out the "act of seduction" coupled with regulatory notice and approvals; 7) Proposal stage; 8) Deal stage; and 9) Management (post-acquisition) stage. They note that "it should be recognized that every situation will be different, that some corporations will have a more formal approach than others (p. 212)." This model is more colorful than than the Fogg model, but not necessarily more descriptive of the process. Steps 3 to 8 may be included in the acquisition decision process in many companies.

Parsons and Baumgartner Model. Parsons and Baumgartner (1970,

p. 43) also present a model of the acquisition process. They feel that in essence the steps in acquiring a company are these: 1) Determining objectives to be achieved by acquisition; 2) Setting criteria governing candidates to be sought; 3) Preliminary screening to develop a list of candidates; 4) Preliminary investigation to determine one or several prospects with whom to negotiate. This investigation includes extensive analysis; 5) Negotiation involves direct contact with the merger candidate. It includes initial contact, plant visits, exchange of information and bargaining; 6) The pre-closing investigation is a thorough audit, study and analysis of the merger candidate to confirm tentative conclusions or to detect discrepancies not previously revealed; 7) Closing is the meeting in which all documents consummating the merger are exchanged; 8) Post-merger integration, as the name implies, consists of dovetailing the organization, functional practices and administrative practices of each company with the other.

Parsons and Baumgartner (1970) note that "the executive time involved in winnowing out the final candidate for merger is enormous. One estimate is 2,600 hours: 4 hours each for determining the initial 100 prospects, 20 hours each for preliminary investigation of twenty of these, 200 hours each for three or four remaining prospects and 1,000 hours in final investigation and closing. Each of these steps requires a higher level of talent, leading to direct involvement of the acquirer's chief executive himself (p. 43)." This model is similar to the Bradley and Korn model, but the terminology is less colorful. This model may best describe the process in firms's that plan and search for prospects.

Boucher Model. According to Boucher (1980) simple sequential acquisition models similar to those of Bradley and Korn and Parsons and Baumgartner were considered by the participants in his study (see Chapter 3) as "naive in the extreme and of no serious value in depicting the merger process (p. 120)." But, his study did not discover a better model. Rather, he found that at the most general level acquisition decision processes have the following common steps: initial contact, mutual evaluation, negotiation and decision. He concluded based on his interviews "that mergers are a very individual business (p. 120)."

Summary and Critique of Relevant Theories and Models

The acquisition decision process seems to: involve more than one participant and many activities; emphasize rational, economic concerns, but it does not exclude all political concerns; have differentiated roles, and tasks are often delegated; involve some people from outside the organization at one or more points in the process; and involve a sequence of decisions made either implicitly or explicitly.

Why should the characteristics approach be used to study acquisition decision processes? As noted previously, contingency factors are included in the models; the decision process characteristics can be measured; and such an approach can lead to prescriptions for improving the process. At present we have some knowledge of the characteristics of the acquisition process because of the large amount of descriptive research and writing in this area.

According to Duncan (1979), "If one understands what the phenomena are and understands their characteristics, then one is in a better position to start focusing on causes and relationships among the various components of the phenomena and thus start using quantitative techniques (p. 425)." Research on acquisition decision processes has reached the point where causes and relationships can be explored.

Finally, this project may also provide a link between the characterizations and the characteristics approach. For example, certain levels or ranges of specific decision process characteristics or groups of characteristics may indicate that a specific decision process characterization is the most appropriate descriptor of the situation.

It should be noted that corporate acquisition decision making is often very secretive and therefore it is difficult to get accurate information for testing the above theories. Both the potential buyer and seller want to keep decision process activities secret for a number of reasons: 1) knowledge of the search being conducted by the potential buyer can lead to insider trading in the stock of the potential seller; 2) potential competitors for the seller may be alerted to the deal and make counter offers; 3) employee morale at the potential selling firm may be hurt if the possible acquisition is disclosed prematurely; and 4) in general, neither party wants to raise unrealistic expectations. After the acquisition has been made, managers are more willing to discuss the process, but information remains difficult to obtain.

Chapter 3

A REVIEW OF ORGANIZATIONAL AND CORPORATE ACQUISITION DECISION MAKING RESEARCH

Research about organizational decision making has increased during the past ten years, but no coherent pattern of methodologies or results is apparent. The primary purpose of this chapter is to summarize prior research and insure that this research project incorporates and benefits from that research. This chapter briefly discusses some recent research on organizational decision making; and then summarizes ten major studies on corporate acquisition search and decision making.

Research on Organizational Decision Making

Butler, Astley, Hickson, Mallory and Wilson (1979) reviewed the history of research on organizational decision making. They noted a research peak in the late 1950's and early 1960's and again at the end of the 1960's. Since 1975 the number of studies has increased and organizational decision making has become an important area of research. According to Butler et. al (1979) research is also changing. They state that "in 1976, first, there is a sudden jump from industrial firms to educational organizations, namely, universities and colleges. Second, and far more significant, is the leap to a study of no fewer than 25 'strategic decision processes' by Mintzberg and co-workers (1976), historically a milestone of skyscraper proportions. Not only are almost as many decision processes recorded as by all other authors put together but they are on manufacturing, service, educational, governmental, and health organizations; and they form the first truly comparative study across heterogeneous examples. All 25 are analyzed systematically in the same terms, not just left to stand side by side unconnected (p. 9)."

This section briefly summarizes some of the recent research on organizational decision making. Pfeffer and Salancik (1974), Hills and Mahoney (1978) and Chaffee (1981) have conducted longitudinal, quantitative case studies of University budgetary decision making. All of these studies tested the characterizations discussed in the previous chapter to determine which was most descriptive of the decision process. The bureaucratic and political characterizations were both predictive of academic budgets in the Pfeffer and Salancik study. The rational characterization received some support in the Chaffee study. And according to Hills and Mahoney, a coalitional model (Cyert and March, 1963) was most descriptive of budget behavior when resources were relatively scarce.

Fahey (1981) examined the analytical and political processes that may influence energy management decisions. He used interviews to collect data in six large multi-divisional firms. His results are general conclusions and impressions, rather than quantified data. Fahey also develops seven descriptive propositions about organizational decision making based on his results. His general conclusion is that "Strategic decision making emerges as a complex, multi-organizational level phenomenon, with many individual decisions simultaneously in process...behavioral and political processes can critically impact any stage of a decision making system or any phase of a specific decision process (p. 58)."

Duncan (1973; 1974), Stagner (1969), Stein (1981) and the Bradford Group (1981) have examined characteristics models. Stagner used a questionnaire to gather data about decision making from 250 corporate vice presidents. He used factor analysis to identify three dimensions of the decision making process: managerial cohesiveness; formal procedures in decision making; and centralization-decentralization. Scores on these factors did not, however, predict the profitability of firms.

A number of characterizations of the organizational decision process were investigated by Stein (1981) using a decision characteristics approach. He used questionnaires to collect data from top managers in 64 companies about an important, recent decision. Stein provided the managers process statements and then used factor analysis to identify process dimensions. He found the following four primary decision process dimensions: nature of analysis; search activity; flexibility of definition of the problem; and group behavior.

In the Bradford Group (1981) study, the characteristics model discussed in the previous chapter was tested. They collected data on 150 decisions made in 30 British organizations, including a small brewery, a symphony orchestra, a police organization and several manufacturing firms. They used regression analysis to test their hypotheses. The results indicate that complexity and cleavage equally explain the amount of negotiation. Cleavage best explains the amount of scrutiny. Complexity best explains discontinuity and centrality. And neither variable explains any of the variance in the duration of the decision process.

Duncan (1974) studied 22 decision units in 3 manufacturing and 3 research and development organizations. A major finding of his study is that units experiencing high perceived uncertainty and either high or low perceived influence exhibited more participation in decision making, less rules and procedures, and less division of labor in their non-routine decision making profiles.

Three studies have had more limited objectives and focused on a single type of decision in multiple organizations. Daft (1978) examined the effect of three organizational context variables, i.e., size, organizational affluence and employee education, on resource allocation decisions in 91 Illinois public high schools. He found that large and affluent school organizations allocated a greater percentage of their budget to overhead functions than did other schools.

Patchen (1974) found that the number of participants in purchasing decisions varied more because of the magnitude of the decision involved than because of the company. For twenty decisions rated by the researcher as being of moderate or major importance, an average of 19.8 persons were mentioned as participants, while for 13 more minor decisions, the average was 7.9 persons. Patchen's results are based on interviews with purchasing directors in eleven companies.

Strategic decisions made in government-controlled enterprises were investigated by Mazzolini (1981). He used a conceptual framework based on Allison's (1971) work when he collected data in field interviews. A number of investigators conducted 304 open-ended interviews in 123 organizations in the European Economic community from 1975-1978. Mazzolini emphasized investment and resource allocation decisions. He presented some frequency data, but the results are primarily generalizations and impressions. Among other conclusions, Mazzolini feels that his results show that is is hard for managers to make a new type of decision and that in those cases the decisions are not always appropriate. He also states that "Decisions are implemented through existing routines, often ill-suited to novel kind(s) of strategies. While leaders can try to intervene to correct certain inefficiencies, their reach is particularly limited here. It is only over time, with repeated decisions of a given type and established operations in a given field, that such problems are alleviated (p. 29)."

Lyles and Mitroff (1980) studied the problem formulation part of the decision process. Mintzberg et al. (1976), as noted previously, investigated and developed a sequential, phase model of the decision process. Witte (1972) also examined the phase model and his research does not support the hypothesis that decision processes can be defined in terms of discrete phases.

March and Olsen (1976) report a number of case studies that examined decision processes from the perspective of the garbage can characterization. Pettigrew (1973) also reports a case study. He investigated the politics of organizational decision making in the adoption, installation, and use of new computer systems.

There are few research case studies on acquisition search and decision processes. Both Carter (1971) and Dory (1978) collected case studies, but their results are discussed in the next section. There are however, many teaching cases that have been written that present some information on acquisitions and mergers.

Some of the relevant case studies examined include Mobil Oil Corp. (Soltys and Roth, 1977), Garnett Corporation (Grant, 1978), Bishopric, Inc. (Hamermesh, 1977), Taylor Wine Company (Uyterhoeven, Ackerman & Rosenbloom, 1977) and Anglo Norness Shipping Company (Uyterhoeven et al., 1977).

Review of Research on

Corporate Acquisition Decision Making

During the past 20 years, ten major research studies have investigated issues related to corporate acquisition search and decision processes. All of them provide descriptive information about the content of corporate merger and acquisition decision processes. The studies included in this review are: Ansoff, Brandenburg, Portner and Radosevich (1971); Birley (1976); Boucher (1980); Brown and O'Connor (1974); Carter (1971); Dory (1978); Kitching (1967); Mace and Montgomery (1962); O'Connor (1980); and Stahl and Zimmerer (1982).

Mace and Montgomery (1962)

The first major study of corporate acquisition decision processes was conducted by Mace and Montgomery (1962). In their study they interviewed executives of U.S. firms actively engaged in the acquisition process. During the year and a half of the field study, more than 275 executives in 75 manufacturing firms were interviewed.

Selection of companies for this study was purposive and reflected convenience more than design. Some executives were referred to the researchers and some agreed to participate after the researchers directly contacted their company. Companies contacted by the researchers had been prominantly mentioned in newspaper articles as involved in acquisitions. The executives who were interviewed were either involved in making acquisitions or were employed by firms that were being acquired.

The study emphasized management problems of acquisitions. At the time of the interviews, executives and their firms were at various phases in the acquisition process and they were performing various roles. Apparently, no systematic set of research questions was asked of all executives, rather the researchers asked them more generally about what was occurring during the acquisition process.

Many of Mace and Mongtomery's findings and conclusions are relevant to understanding corporate acquisition search and decision processes. They concluded that in general "the process of acquisition ... is not a mechanical, sequential performance of essential steps. Rather, the elements of acquisition are intertwined -- evaluation goes on during negotiations and the problems of integration are profoundly affected by what is said by representatives of the acquirer and the acquired during business discussions (p. 8)."

Mace and Montgomery also believe that corporate growth programs cannot be successful without a clear definition of objectives: they found that "The failure to define objectives seems to result in a sense of top management dissatisfaction, a feeling that something needs to be done. Under these circumstances top executives may become overanxious to buy something that looks good to them without defining what is good, and too often they embark on purchase programs later to be regretted (p. 65)." This finding supports the incremental characterization of decision making discussed in Chapter 2.

Mace and Montgomery emphasize the importance of CEO involvement in the corporate acquisition decision process. They state "in every company in which there was a successful acquisition program, the chief operating executive was personally involved. There were no exceptions (p. 75)." They temper this conclusion somewhat a few pages later when they state that in several cases success was achieved by a senior executive who worked closely with the president (p.80). Also, they conclude that division and department general managers should limit their role to identifying possible acquisition prospects and that other acquisition activities should be carried out by headquarters executives.

Based on their interviews, Mace and Montgomery determined that staff groups concerned with acquisitions varied from a single specialist in a small company to a 12 person unit in a very large company.

Concerning the acquisition decision process, Mace and Montgomery conclude there are many differences when compared to administration of a business. They found that many concepts are different, the process can be intricate, and inexperienced people slow the process down. They state "many staff executives, however, who have gone through the process once, have become immeasurable aids in subsequent negotiations and agreements to acquire (p. 85)."

They also note that to deal with some of the problems associated with making acquisitions, managers hire consultants.

Once a possible acquisition had been chosen for investigation, an extensive search for information occured in many companies. A summary report was then prepared from published information. This report was the basis for deciding to approach an acquisition prospect. If it was decided to approach the company, a strategy of approach based on the characteristics of the people involved seemed to lead to the greatest success. The managers of the most successful acquiring firms were prepared to discuss the questions commonly asked by managers of the prospect company on the first visit. These questions included "Where will we fit?" or "What plans do you have for our key people (pp. 124-127)?"

A final issue raised by Mace and Montgomery is that analysis of acquisition prospects can be either too detailed or too superficial. "We found many examples of managements who made fast and superficial evaluations of companies which were acquired (p. 152)." But, they also found a preoccupation with too much detail. Also, some companies established very specific criteria for evaluating prospects, but the authors conclude that "many company managements do a much more careful job evaluating one man for possible employment than they do in evaluating five, ten, or fifteen people who would occupy key positions if the purchase was consumated (p. 162)."

This study has serious methodological problems and some of the descriptive results may be dated, but it is both interesting and informative. The results support a number of the characterizations from Chapter 2, and it suggests process characteristics specific to acquisition and mergers.

Kitching (1967)

Another qualitative interview study of corporate acquisition decision processes was conducted by Kitching (1967). The objective of his study was to establish the underlying causes for variations in the performance of acquisitions. Kitching interviewed executives in 22 companies. The participants held various top-management positions, including chief executives, senior vice president for finance, controller, treasurer and director of planning or acquisitions. The sales volume of the companies in the study ranged from $25 million to $2 billion. Acquisitions were classified by type, e.g. horizontal or conglomerate. All of the data was collected in retrospective interviews about acquisitions that had been completed from two to five years prior to the study. He collected information about the decision process and qualitative and financial assessments of success of the acquisitions.

Kitching found that the executives he interviewed felt more uncomfortable about the relatively high risk associated with making an acquisition compared with an equivalent investment in a new plant (p. 86). Also, his data indicate that there was an especially high risk of failure in conglomerate mergers of all types, but especially for concentric acquisitions. Also, a "size mismatch" (where the acquired company's sales were less than 2% of the parent company sales volume before the merger) occurred in 84 percent of the acquisitions considered failures. A factor he calls organization format, e.g., reporting relationships or autonomy of the seller following the merger, was changed in 81 percent of failures.

He concludes that the critical element in the success of an acquisition is the availability of managers who can catalyze the change process after a merger. But he also notes "companies that merely react to opportunities to purchase are less successful in their acquisitions than those with an overall strategy which includes an acquisition program. The more successful companies will often actively solicit the sale of companies which they wish to purchase (p. 91)."

Kitching reports two final conclusions: companies that make successful acquisitions formulate a set of acquisition criteria consistent with overall strategy and rigorously apply them (p. 91). And managers underestimate the future funds required and management time demanded following an acquisition.

Ansoff, Brandenburg, Portner, and Radosevich (1971)

The most extensive study of corporate acquisition decision processes and outcomes was completed more than 10 years ago by Ansoff, Brandenburg, Portner, and Radosevich (1971). Their study involved collection of data from secondary sources and a two-part mailed questionnaire. The purpose of the study was to investigate how firms conduct mergers and acquisitions. Specifically, the following issues were studied: the reasons motivating an acquisition; the degree of pre-planning; the actual manner of search for acquisitions prospects; post-acquisition activities; and relations to overall success based on objective and subjective measures.

Of 412 U.S. firms mailed questionnaires, 93 useable responses were received for the study. But, in only 62 firms could relationships be studied "among a number of features of management decision processes, individual firms' perception of their own successes, and more objective performance measures (p. 19)." Many of the firms in the study had made multiple acquisitions in the period from 1946 to 1965 and respondents were asked about their firm's aquisition program in general rather than about any one specific acquisition decision process.

The acquisition practices of the 93 firms returning questionnaires are of particular interest. The authors found that "36% of the acquiring firms engaged in intensive search for acquisition candidates, 35% used a planned but less focused broadcast method and 29% were passive recipients of suggestions, with no preconceived limitations on the candidates (p. 32)." Also, they found that "of the candidates whose acquisition was consumated, 69% of the initial contacts were made by the acquiring firm (p. 33)." They note an anomaly in that "only 5% of the firms that did extensive search felt that they achieved all of their objectives, as compared to 17% for those that did not use significant resources on the search process (p. 33)." By way of explanation, they note that this difference is probably because the group that did not use significant resources, also did not state their objectives in advance of search and therefore had no means of comparison (p. 33).

Ansoff et al. found that in the evaluation of acquisition candidates: Few people worked full-time on acquisitions, although some firms had as many as 6 full-time people assigned to acquisitions. The authors also note that for every acquisition completed an average of 1.5 prospects were thoroughly evaluated and almost one case of extensive negotiation without acquisition occurred for every acquisition that took place. They found that the typical length of time from first recognition of a firm as a prospect until completion of the acquisition was about ten months (p. 34).

Ansoff et al. examined the integration of acquisitions and found that in most cases a separate executive or management group had primary responsibility for the majority of post-acquisition integration activities. When the assignment was made to the president or a special staff director fewer integration problems occurred. They report that "about 41% of the acquired firms were allowed to operate in a completely autonomous fashion; another 24%

installed uniform policies and procedures in the acquiring and acquired firms; 16% of the acquisitions resulted in the integration of the functional areas only, while another 15% integrated all activities (pp. 36-37)." According to the respondents, 75 percent of acquisitions were integrated in less than 2 years. It is not clear how firms that were allowed to operate autonomously were treated in assessing the time required to complete integration activities.

In this study a high failure rate for acquisitions was reported. About 20% of all acquisitions were considered outright failures and in 18% unanticipated integration problems occurred. Synergy did not materialize in 11% of acquisitions; personnel problems occurred in 43% of the acquisitions and sales and earning forecasts were not achieved for 34% and 45% of the acquisitions.

According to Ansoff et al., firms either used planning and decision-making practices throughout the acquisition process or consistently used a very cursory analysis. The authors separated firms on this basis into what were called "ideal" firms that consistently planned and followed decision making practices and firms called "random acquirers". They found that extensive search and planning were not associated with perceived success. With the exception of a vertical acquisition strategy, type of acquisition had little affect on success. This finding is very different from that reported by Kitching (1967).

This study examined only firms which had completed acquisition programs some period of time before data were collected. For that reason, financial data could be used to assess the success of the acquisition programs. Major financial performance variables used in the analyses were sales, earnings, stock price, debt-equity ratio, earnings on common equity and earnings on total assets. The planning variables in the study were highly correlated with financial performance, especially earnings on common equity and earnings on total assets. And firms evaluating only a small number of potential acquisitions in great depth performed much better than firms looking at many companies. Integration was found to have little influence on growth or performance. Ansoff et al. conclude that firms with formal planning systems performed better and with less variation in their results.

Carter (1971)

Carter studied six decisions, including three acquisition decisions over a three month period in one organization. Several of the decisions were made while he was studying the organization, the others had been made shortly before. Carter interviewed many managers in the organization and also collected external information about the organization and its decision making. To verify the information about the decision processes he examined public statements, used corraborating interviews and re-interviewed some participants. In all cases he guaranteed personal anonymity.

The organization studied is called Comcor. It was organized in 1962 with headquarters in the northeast United States. Comcor operated branch computer centers and related offices throughout the U.S. at the time of the study. Its main business was providing computer equipment and professional services to many commercial, governmental and educational institutions. The three acquisitions made by Comcor and investigated in Carter's study were a geological consulting firm, a computer-plotter manufacturer, and a programming company.

According to Carter, "There are obvious parallels in the acquisition and investment decision at Comcor. Each reflected the personality of a forceful president who sought advice and suggestions, but always made the decision (p. 420)." Carter also found substantial differences in the processes. First, the decision structure was more centralized in the acquisition decisions, perhaps because of the relative expertise of the president versus his staff. "Given the operating history of the acquisitions, evidence was available for the decision, reducing the president's need for expert appraisal of potentials, as was the case so often in the investments (p. 420)." Second, "the generation of alternatives was also different. The three investments were initiated within the firm, two of the acquisitions, although supported internally, were first brought to Comcor by outsiders. Furthermore, in all three acquisitions, the owners were looking for a buyer (p. 420)."

There were also similarities in the investment and acquisition decisions in that the president, his financial vice president and other top managers jointly screened possibilities and consulted on the decision. Carter concluded that for the acquisitions, the decision seemed to rest mainly on a simple financial goal, with some reference to geographic dispersion and sales. He felt that "the lesser degree of uncertainty relating to project performance present in the acquisition cases supports the argument that fewer factors would be analyzed (p. 423)."

In all of the decisions, Carter found that "By the time the president acted, uncertainty in underlying data was suppressed prior to the decision by various subordinates; after the decision there was no concern over uncertainty, as indicated by the repeated lack of any contingency plans and the absence of standards for control or evaluation. The president acted on the basis of, in his words, positive thinking (p. 426)." Decision making at Comcor seems to be both bureaucratic and incremental.

Brown and O'Connor (1974)

As part of a larger questionnaire study on the role of corporate planning executives, Brown and O'Connor (1974) collected descriptive information about the role of planners in corporate acquisition decision processes. They received information from 111 of the 209 planners in large U.S. firms who received the questionnaire (a 52 percent response rate). The role of planners in acquisitions was also discussed in personal interviews with an unspecified number of planners in firms headquartered in five major U.S. cities.

Of the 111 respondents, 75 reported that they had responsibilities for "recommending firms for addition to, or association with, the company"; 54 conducted negotiations with acquisition, merger or joint venture candidates; and 21 reported they were responsible for broker contacts, analysis of the candidate and/or structuring the package.

Brown and O'Connor note three distinct processes, and organizational arrangements for making acquisitions:

> In one, acquisitions are carried out primarily at corporate headquarters, although operating units may make recommendations. In the second situation, practically all acquisitions activity takes place at the operating-unit level. In the third, acquisitions occur at either level, depending upon the size of an enterprise sought after, or whether it fits in with an operating unit's current interests or represents an entirely new business for the company. In all three situations, the corporate planning unit's acquisitons responsibility almost always entails developing criteria for adding new businesses... A number of corporate planning units also investigate and evaluate specific candidates for acquisition or merger brought to their attention by divisional management, corporate management, or headquarters acquisitions specialist (p. 23).

They found that acquisition work can be very time consuming. One chief executive officer provided Brown and O'Connor with a striking example of this. During an interview he noted that "after the company had reached an agreement in principle to acquire another firm, more than 300 man-hours of his acquisitions staff's time were required to complete the detailed arrangements (p. 23)."

Brown and O'Connor reach the following conclusions about the acquisition search and decision process involvement of corporate planners. First, the corporate planning director is involved in acquisition decision-making and, sometimes involved in prospect contact, and action-taking (p. 24). Second, many companies have separated corporate planning from acquisitions work. In some cases, "because acquisitions are the principal interest of the chief executive, and he has reserved the company's efforts in this area for himself (p. 24)." Many of these findings were confirmed in a study by O'Connor (1980).

O'Connor (1980)

O'Connor's (1980) study describes the Corporate Development function in 177 organizations. She received responses to her survey from 177 of 627 senior corporate development executives (27 percent response rate). She also conducted 23 in-depth interviews. The managers represented companies of all sizes. But sixty nine percent of the managers worked for manufacturing companies.

She collected data on: when the corporate development function was organized in the companies; the purpose of corporate development; organizational relationships to other units and to the CEO; data on the responsibilities of the corporate development director for acquisition and merger activtities (p. 20); and acquisition guidelines from some companies.

O'Connor quotes a company vice president on CEO involvement in the acquisition decision process. He states, "A meaningful acquisitions program will be successful only if it has the personal commitment of the chief executive officer. To get the necessary commitment, the CEO must have a significant role in setting goals and establishing criteria used in evaluating acquisition opportunities (p. 13)."

Based on O'Connor's findings, there is some disagreement among practioners about what and how much should be done to investigate acquisition prospects. She notes "The practice of sending visiting teams to examine the physical sites is a common practice, but one study participant chides the use of team evaluation. On the other hand, others have omitted this step and regretted it. Tales abound, for example, of firms that failed to look at one small - albeit ultimately crucial - item that cost the acquirer millions of dollars (p. 42)." She also notes that "The time required in the total acquisitions process to make an adequate analysis of the situation, and to engage in proper negotiation, is prohibitive, some survey participants say. One corporate executive states that he has a small staff, and cannot meet the deadlines in a deal...(p. 42)."

Based on her interviews, O'Connor concluded that an initial screening occurs to determine if a company may meet criteria and guidelines. But as the investigation of a target company progresses corporate development subjects it to closer and closer scrutiny. Analysts examine in more detail every aspect of the company's finances, operations, products and markets, management, and organization. Also the impact of the company on the parent company's future is also evaluated (p. 41)."

O'Connor notes that the outcome of acquisitions is important to the corporate development function. And she thinks "the failure or success rate surely affects, or is affected by, every phase of the acquisition process - search, criteria, negotiations, and so on (p. 44)." She also notes that managers who have avoided problems common to post-acquisition arrangements are "particularly attentive to pre-merger details and very careful about assessing management, in particular (p. 44)."

Birley (1974; 1976)

In Birley's (1974; 1976) study, interviews were conducted with 52 managers of 16 United Kingdom companies that had made a total of 20 acquisitions. The study examined factors that might determine the nature of the corporate planning system for acquisitions and it evaluated the effects of planning on both financial and subjective measures of acquisition success.

In her study, Birley found that in more than half of the companies there was a very low level of planning. There was a positive relationship between company size and the planning score, the larger the company the more complex and formal the planning system (p. 69). But she found no relationship between planning and profitability. She found that executives from the same companies agreed on only about half of the acquisition criteria that had been used to make the decision. Birley notes that agreement about the acquisition processes was highest for questions of fact. Also, she thinks some of the disagreement is attributable to secrecy, emotional involvement of the participants, and involvement in only a small part of the process by some of the respondents. Her analysis suggests that detailed discussion among executives was minimal. And she concludes that until pre-acquisition analysis and discussion within the boardroom of acquiring firms improves, acquisitions will be risky (p. 72).

Her findings on the relationship between planning and a subjective evaluation of success are opposite those of Ansoff et al. (1971). She concludes:

> those companies which used informal planning systems either disagreed upon the eventual outcome of the venture or felt negative about it. In the latter case these were situations where the original acquisition was of a defensive nature where only one company had been considered. On the other hand, those companies with the more formal approach to planning tended to search for possible acquisitions, set up some form of financial criteria, however loose, and tended to be more satisfied with the eventual outcome (p. 72).

Dory (1978)

Dory (1978) prepared detailed case studies of the acquisition scanning process in six companies that had made successful acquisitions. The case studies were based on secondary data and interviews with top managers involved with acquisitions in the companies. The studies were grouped into 3 pairs based on similar acquisition objectives and diversification strategies. Also, two firms were selected from the abrasives industry; two were from the tobacco industry; and two were conglomerates. The case studies were analyzed to determine if there were differences in the firms' acquisition scanning process in terms of six characteristics: 1) the types of information gathered; 2) sources of information about markets to enter; 3) sources of information about prospects to acquire; 4) types of information processing; 5) participants in the process; and 6) the sequence of scanning activities.

The sources of information about prospects to acquire and some of the information on the participants in the process and the sequence of scanning activities are especially relevant to research on the corporate acquisition decision process. Dory hypothesized that two major variables influenced the acquisition scanning process: acquisition objectives and diversification strategies. He found that most acquisition objectives range from aggressive to defensive. "Acquisition objectives are typically aggressive when the firm faces its environment with more resources than it can utilize efficiently within its current markets. ... Acquisition objectives are typically defensive when the firm faces threats or risks within its markets and diversifies to escape the threats or reduce the risks (pp. 11-12)."

Dory hypothesized that firms with defensive objectives use more limited sources of information or may rely on external information processing capabilities. And such firms may also be less adventurous in seeking prospects (p. 12). In terms of the influence of diversification strategy, Dory found "many firms following related business strategies maintain large corporate staff groups which can gather information about many potential related markets for entry. By comparison, a firm following an unrelated business strategy many have considerably less access to sources of information and less staff resources to gather and process it (p. 13)."

Dory concludes that "firms seeking to enter markets related to their existing businesses generally identified markets for entry before gathering much information about prospects for acquisition and often sought smaller, privately owned companies which would be easier to integrate with existing operations. Firms seeking to enter markets unrelated to their existing businesses generally identified acquisition candidates before selecting markets to enter and often sought larger publicly owned companies about which substantial amounts of published information was available (p.

202)." His research indicates that industry variables appear related to scanning in two ways. First, industry variables limited the early search for markets to those similar to the firm's existing businesses. Second, and he felt more important, industry variables influenced the perceived urgency of making acquisitions (p. 203). Dory also notes "firms generally gathered significantly more information about prospects which competed in related markets than about those which competed in unrelated markets (p. 203)."

Three company variables, according to Dory, explain differences in scanning processes and success of acquisitions: organizational policies, the management's experience with successful acquisitions, and the leadership style of the chief executive officer. In firms with successful acquisition scanning processes, organizational policies facilitated the participation of managers in scanning and decision making. Policies that involved more managers in scanning and encouraged those managers to have broad contacts resulted in the greatest success. Also, Dory notes "boards of directors were more willing to actively support diversifying acquisition programs after the firm had completed several acquisitions (p. 206)." Finally, he concludes that a somewhat democratic leadership style supported a relatively efficient scanning process because available information was quickly gathered when alternatives were identified. And then additional scanning was applied only to the more promising alternatives (p. 207).

Boucher (1980)

Fourteen experts on mergers and acquisitions including lawyers, investment bankers, company presidents and professors/consultants participated in Boucher's (1980) modified Delphi study of the merger/acquisition process for the Federal Trade Commission. Each participant was interviewed twice about motives for mergers, who participates, the sequence of activities and the consequences of mergers. The participants provided opinions about acquisition decision processes in general rather than describing specific acquisitions with which they were familiar. The opinions collected in the first round of interviews were tabulated and served as inputs to the second round of interviews. Participants could revise or clarify their opinions during the second round.

According to Boucher, "the panel agreed that mergers occur because they make business sense. ... A company may have decided to enter a certain business and then found that the best way to proceed is by buying another company, or it may have discovered a good company and then decided to enter that business (pp. 24-25)." He notes that taking advantage of sudden opportunities, is accepted and encouraged by some panel members. Boucher notes that "before a decision is reached, however, the company will consider as many factors as possible, and weigh them as carefully as it can (p. 26)". According to the panel, in large companies this kind of analysis was almost always carried out. Analysis incorporates factors other than basic economic considerations, including potential impacts on employees, customers, the community, and other constituencies (p. 26). Boucher's panel described a rational analytical process.

But, he notes that the process does not always follow this pattern. For example, when there is a lot of competition for an acquisition, a company may get forced into a bad deal. One of his respondents explains a major problem:

> there is essentially no market feedback in the merger/acquisition process. Consequently, the decision process is usually internal. Factors like career goals become influential and they are compounded by opportunistic factors. In this situation, decisions can be affected by what the CEO had for breakfast. People who don't understand that there are big information problems in this market -- high information costs and no feedback -- or who forget that real human beings are involved, are likely to misunderstand what is happening. Government may think that the company is crazy or doing something evil (pp. 26-27).

About the content of the acquisition decision process, Boucher speculates:

> if the motives are narrowly economic, then it might be expected that the process would be highly explicit, well-structured, and unambiguous. If the motives are idiosyncratic to the top management, the process would probably be highly intuitive, spasmodic, and murky (p. 115).

The panel disagreed about who was principally responsible for initiating the acquisition decision process. Estimates of large mergers originated by the buyer ranged from 10 percent to 90 percent. For those originated by sellers, it ranged from 2 percent to 40 percent. For investment bankers, from 5 percent to 75 percent (p. 116). The interview results suggest that "perhaps the least influential originator is the buyer's own in-house acquisitions officer (p. 116)."

The study found no common process model except at the most general level (see Chapter 2). Boucher notes that "billion dollar firms have a formal corporate staff and program for strategic planning for acquisitions...In smaller corporations, the activity tends to be much less formalized or systematic, though formal committees are increasingly coming into use. This is not to say that smaller corporations are less likely to be deliberative ... (p. 120)."

Boucher concludes that "the participation of the CEO is vital (p. 123)." A panelist commented "If a company is to be successful in its acquisition program, the CEO must be personally involved. Because of the importance of timing in these deals, you need a negotiator who can cut through red tape and make whatever concessions and accomodations may be necessary to close the deal. A deputy without authority won't do (pp. 123-124)."

Based on the panel's responses, Boucher assembled a taxonomy of types of buyers and explained how the decision process for these types differ. Very large publicly-held national or international firms, that are already conglomerates, use either formal or informal systems for merger activities. If a large firm would become a conglomerate by making the merger, a formal system is used. Medium sized, regional firms that become a conglomerate when the merger takes place have less formal merger activities, but the managers are looking for "fit" and a deal that makes "business sense".

Stahl and Zimmerer (1982)

Stahl and Zimmerer (1982) used a mail survey to obtain judgements from managers in 42 firms that had completed acquisitions during the 18 months preceeding their study. The managers were from both medium-sized and large firms. Thirty-one worked in manufacturing firms and eleven worked in service firms. Fifteen of the responding managers were the president or senior vice presidents of their companies, and twenty four headed corporate development.

Based on six criteria derived from the acquisition literature, i.e. relative price earnings ratio, relative purchase price, anticipated discounted cash flow, relative market share, relative productive capacity and vertical integration, Stahl and Zimmerer constructed a simulated decision exercise. In the mail survey, they presented managers hypothetical acquisition candidates. The managers were asked to indicate the relative importance of the six criteria by distributing 100 points among them for each hypothetical acquisition candidate. Stahl and Zimmerer found differences in decision policies concerning the six criteria they had managers use to evaluate hypothetical acquisition prospects. They concluded that an acquisition policy is firm specific.

Conclusions

Prior research on organizational and corporate acquisition decision making remains small when compared to individual and group decision making research, but the number of studies is increasing, evidence is accumulating, and patterns are emerging. The studies are primarily field research in multiple organizations and therefore, the samples are usually small, convenience is often a criterion in identifying participants, and unstructured interviews are commonly used. Also, retrospective information is often collected in the studies.

Much of the research supports a rational analytical characterization of the corporate acquisition decision process, but the research also indicates that decisions also result from bureaucratic, political, incremental and garbage can processes.

The research on corporate acquisition search and decision processes suggests a number of factors that may result in successful acquisitions: experience of managers, CEO involvement, type of acquisition, the search and decision process, planning, and the amount of participation in the search and decision process. Each of the above studies has limitations and the findings are sometimes contradictory so clearly more research is needed on the important issues raised in these studies about how to design and manage corporate acquisition search and decision processes and programs.

Chapter 4

AN ELABORATION OF RESEARCH HYPOTHESES

Although research questions were presented in Chapter 1, the purpose of this chapter is to develop and state specific research hypotheses related to the questions. Specific hypotheses clarify what the researcher expects to find during an investigation and aid in presenting and interpreting research results.

But before specific hypotheses are developed it may be helpful to restate the research questions. They are:

1) Do some decision-process activities predict short-run success for an acquisition? Are some activities unrelated to success or related to failure?
2) How involved is the chief executive officer (CEO) in acquisition decision processes? Does the amount of CEO involvement predict success? Under what circumstances are CEOs involved?
3) Does participation in the decision process by the management team predict short-run success? When managers have participated in decision making, is implementation of the decision evaluated as more successful?

4) Do managers use more complex and extensive decision processes when an unrelated business is acquired?
5) Do managers who are experienced making acquisitions design and use substantially different decision processes than inexperienced managers?
6) Does the decision process differ when the organization initiates and plans a search for acquisition prospects as compared to when the process is unplanned and initiated by the seller or a broker?

A review of these research questions suggests that many of the models and research results discussed in the two previous chapters are relevant for making specific predictions about relationships.

Important Concepts

These research questions and the relevant literature suggest that many factors may determine differences in corporate acquisition decision processes and determine the consequences of those differences. The Bradford Group's model implies that the complexity and cleavage associated with a decision topic determine the process. Snyder's (1958) model suggests that characteristics of the decision situation and limitations internal to the decision-making system such as organizational rules and procedures, the communication and information system, and the motivation of decision makers affect the content of the decision process. Hage

(1980) suggests that the process differs for high risk and frequent decisions. The Mintzberg et al. (1976) model suggests that how the decision process is initiated, e.g. by a problem or an opportunity, influences the content of the decision process. The Ansoff et al. (1971) and Birley (1974;1976) studies imply that acquisition planning and planned search for prospects may affect the decision process and the success of an acquisition. But in those two studies, it is not clear how planning will influence the content of the decision process.

The small amount of research using characteristics models makes it difficult to determine which characteristics are most important. Experience making acquisition decisions is included in this study because a number of prior studies use this concept. Also acquisition experience is part of the complexity construct of The Bradford Group and is similar to the frequency concept in Hage's model. The strategic risk of an acquisition is included in the study because the risk associated with unrelated acquisitions is an important issue in the merger literature. And this concept is similar to the risk concept in the Hage model. Strategic risk is the probability that a strategic organizational decision, like an acquisition, will fail. Bettis (1982) concludes that "In empirical research there is a necessity for more researchers to incorporate risk variables into their analyses and models (p.25)." Similarily, source initiating the acquisition decision process is included because both Ansoff et al. (1971) and Dory (1978) suggest planned search is an important factor. Additionally, Mintzberg et al. (1976) suggest that how a decision process is initiated affects its content. The size of the company making the acquisition is included because this is a frequently used variable in organization theory research and it has been found that processes differ depending upon the size of a company.

Hage (1980) and The Bradford Group (1981) suggest a number of process variables, including amount of discussion, amount of information search, scrutiny, and routinization. The research studies in the acquisition literature suggest that CEO involvement and certain analytical activities are important in acquisition decision processes.

Rees (1966) helps clarify the concept called intensive search. He says that

> The search for information in any market has both an extensive and intensive margin. A buyer can search at the extensive margin by getting a quotation from one more seller. He can search at the intensive margin by getting additional information concerning an offer already received. Where the goods and services sold are highly standardized, the extensive margin is the more important; when there is great variation in quality, the intensive margin moves to the forefront (p.560).

In the acquisition market, there is great variation in quality so search at the intensive margin should be very important to success.

Two Competing Research Models

Although model development and testing is at an embryonic stage in this research area, two competing models offer alternative explanations for the success of corporate acquisitions. One model, termed the prediction model (see Figure 4.1), suggests that investigating the activities of managers is not necessary to predict the success of an acquisition. Rather, in the prediction model environmental factors, characteristics of the acquisition prospect, and characteristics of the decision situation are the best predictors of the future success of an acquisition prospect. The second model, the decision-process model (see Figure 4.2), explicitly includes characteristics of the decision-related activities of managers. In this model, decision-process activities characterize the decision process and their presence and the amount of activity are important influences on the success of an acquisition.

In the prediction model (Figure 4.1), strategic risk, experience making acquisitions, source initiating the decision process, size of the acquiring company, and implementation are hypothesized as influencing the effectiveness of an acquisition. Four other concepts suggested by Porter (1980) and others are included in the model: the state of the economy, industry characteristics, the financial state of the acquired company, and

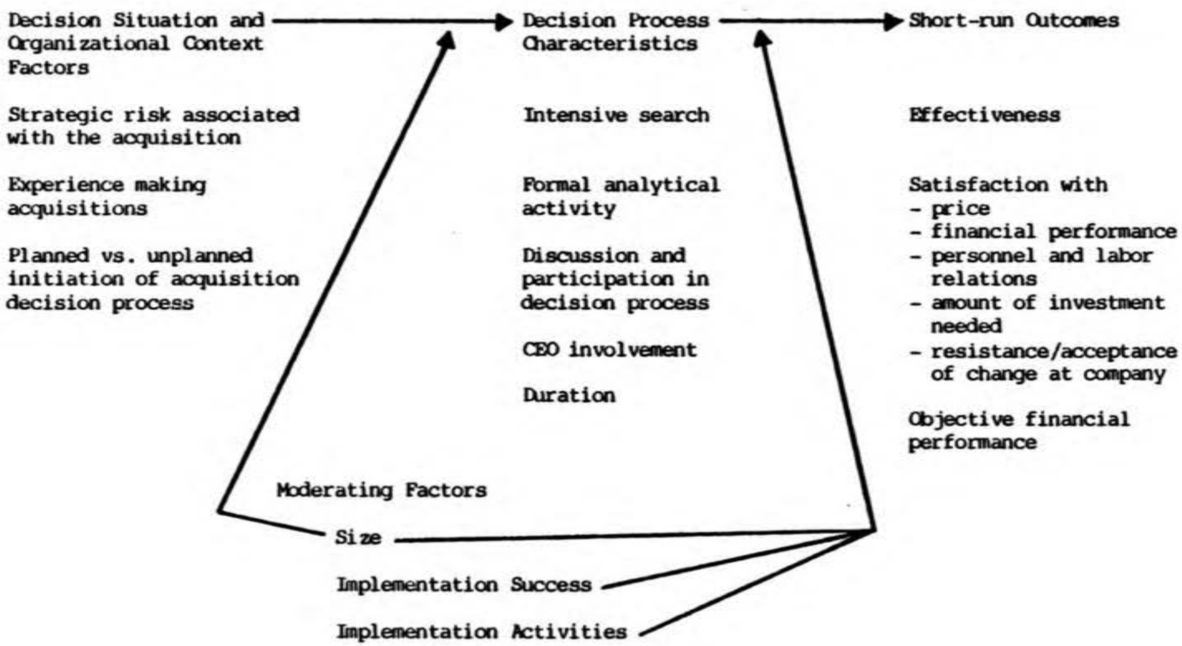
Figure 4.1

Prediction Model

Predictors ⟶	Short-run Outcomes
Strategic risk associated with the acquisition	Effectiveness
Experience making acquisitions	Satisfaction with - price - financial performance - personnel and labor relations - amount of investment needed
Planned vs. unplanned initiation of acquisition decision process	
Size of acquiring company	
Implementation Success	Objective Financial Performance
Implementation Activities	
State of the economy	
Financial state of the acquired company	
Industry characteristics	
Competition to acquire the prospect	

Figure 4.2

Decision-Process Model



competition to acquire the prospect. No specific hypotheses are developed about these concepts. The design of the study and the criteria for selecting companies (discussed in Chapter 5) attempted to control for the first two factors; data were collected about the occurrence of the last two factors.

The decision-process model (Figure 4.2) includes three decision situation and organization context factors that are considered as determinants of five decision-process characteristics. The concepts of strategic risk, experience, and source initiating the process are also included in the prediction model. The five decision-process characteristics include intensive search, formal analytical activity, discussion and participation in the decision process, CEO involvement, and duration of the decision process. All of these characteristics except CEO involvement are similar to concepts in the Hage model. Also, CEO involvement is related to centralization, but its use in the model is related more directly to the acquisition literature. In the process model, these characteristics determine the effectiveness of the acquisition. Size, implementation success, and implementation activities are included as moderating variables.

Size is considered a moderating variable because it is included in a number of studies in the organizational theory literature. The Aston Group (Pugh, Hickson, Hinnings, and Turner, 1969) found that size is related to structure. Blau and Schoenherr (1971) concluded that size accounts for structural differentiation. Child (1973) found that size is positively related to specialization, standardization, and formalization, and is negatively related to centralization. Khandwalla (1977) found that size and decentralization are positively related to the use of controls (e.g. formalization). The following sections develop hypotheses related to the prediction and decision-process models. (The following codes are used to classify the hypotheses: PM = prediction model; D = descriptive; DPM = decision-process model; and P = process.)

Prediction Model Hypotheses

The concepts of experience making acquisition decisions, strategic risk, and source initiating the decision process are evaluated in this section as predictors of corporate acquisition success. The links between these concepts and decision-process variables inevitably are part of the discussion, but the premise of the model is that it is not necessary to explicitly account for differences in process characteristics to predict successful acquisitions.

What is the effect of experience making acquisition decisions on success? Bing (1980), a merger specialist, believes that "An advantage of a continuous acquisition program is that as experience is gained, learning results from errors, certain characteristics take on added importance, a buyer becomes more certain of what sort of company he wants to buy, and he more easily recognizes a desirable company when he sees it (p.141)." Although this statement suggests the process changes with greater experience, it also emphasizes the importance of experience for making successful acquisitions.

Brockhaus (1975) supports this view. He reports "the evidence indicates that ease and expertise in mergers and acquisitions come only with the experience provided by six to eleven of these reorganizations (p.49)."

Parsons and Baumgartner (1970) cite Kelly's (1967) finding that companies that have made five or more acquisitions have a significantly higher percentage of "successful" acquisitions than those with less experience. They note that "to determine what is a successful merger, one must apply the twin yardsticks of time and the question, "Would I do it over again (p. 28)?"

Allan (1966) reports that "For companies that have made only one or two acquisitions, it has been estimated that 75 percent of these acquisitions have been unsatisfactory but for companies with five to ten acquisitions only 40 per cent have been unsatisfactory. This certainly suggests that experience may be an important factor (p. 107)."

In a related research study, Higgins and Finn (1977), studying 56 British organizations, found that those companies with more years of experience in planning rated the relative success of their corporate planning more highly than those with fewer years of experience. They interpreted these results in terms of the learning curves of both managers and planners.

Lubatkin (1982) also argues that "...merger is an act of strategy. This strategy, if it is new to the firm brings about administrative problems. These problems are eventually noticed and solutions for them eventually found (p.13)." Experience making acquisitions may result in learning by managers and planners, but it is not clear in the evidence just cited what is learned. Therefore, experience itself may be the best predictor that can be found to insure that managers know how to design and manage acquisition search and decision processes. Both opinion and research results support the following hypothesis:

> Hypothesis PM 1. The greater the experience of managers in the buying firm, the more satisfactory and effective the acquisition.

What is the effect of strategic risk on success? One major factor that seems to determine the strategic risk in an acquisition decision is the business relationship between the buyer and seller. For example, Baker, Miller, and Ramsperger (1981) state that executives view horizontal mergers as most frequently successful, followed by congeneric, conglomerate, and vertical mergers (p.56).

But, Salter and Weinhold (1979) state that the general proposition that related diversification is always safer than unrelated diversification is not always true. According to Salter and Weinhold (1979), "This misconception rests on the notion that operating risks are reduced when diversifying companies stick to businesses that they think they understand ...(S)uccessful related diversification depends on both the quality of the companies acquired and the organizational integration required to achieve the benefits of synergy (p.39)." This point of view emphasizes the importance of managerial actions, decision processes, and implementation.

Drucker (1981) makes a slightly different argument. He thinks that to make successful acquisitions it is necessary to search for a company with a common core of unity-technology, markets, and/or production processes. Kitching's (1967), Kelly's (1967), and Rumelt's (1974) studies provide some support for this rule. Recall that Kitching's (1967) study of managers in 22 companies concluded that there is an especially high risk of failure in conglomerate mergers of all types but especially for concentric acquisitions (see Chapter 3). Concentric acquisitions involve either common customers or common technology. Kitching thinks that what happens is that the parent company "gets lulled into a false sense of security and neglects the technology aspect, or vice versa (p.92)." Drucker's rule promotes this false sense of security.

Rumelt's (1974) study of 273 large industrial corporations showed economic performance higher for those firms with a majority of their activities related to some central resource skill or competence. This differential in performance was confirmed by the Bettis study (1981). He found that on the average, related diversified firms outperform unrelated diversified firms by about one to three percentage points for Return on Assets (ROA). Kelly's (1967) research suggests that entering by acquisition into completely new businesses causes an upward shift in average unit cost, but that the form of expansion "does not determine success in terms of rate of return (pp. 52-53)."

Other studies (Montgomery, 1979; Rumelt, 1979; Bettis & Hall, 1982), however, show that the higher economic performance of the related-business firms is associated with market-structure characteristics, e.g. market profitability, market share, market growth, and concentration. Apparently related-business firms have tended to take positions in industries characterized by high levels of return on capital. These phenomena may reflect a more fundamental determinant of profitability. The firms have developed skills in product/market areas subject to product differentiation and market segmentation.

The Ansoff et al. (1971) study of 93 companies also does not completely support Drucker's concern about high-risk acquisitions. They found that only vertical integration was positively related with perceived success. Success, however, was perceived to be associated with other factors, e.g. search and planning. Lubatkin

(1982) found that firms making unrelated acquisitions may actually be more successful financially than those making related acquisitions. Much of the above discussion is from Paine and Power (1982) who concluded that unrelated acquisitions should not be ruled out by managers. The following hypothesis, however, seems reasonable given the evidence:

> Hypothesis PM 2. The greater the strategic risk associated with a specific acquisition, the less satisfactory and effective the acquisition.

What is the effect on success of identifying prospects by planned search? According to Scherer (1980), J.K. Butlers and his colleagues found that more than two-thirds of 80 early post-World War II mergers were initiated by the acquired firms. Scherer feels that "although the proportion of seller-initiated mergers has probably declined since then, there continue to be several reasons why the owners of a corporation might wish to sell out (p.127)." So, many mergers are not initiated by the acquirer. Is this a reason for the high failure rate?

Bing (1980) states that "No one questions the desirability of planning, but the results are often controversial and the activity still considered by most a luxury that is dispensable in difficult times...Despite all the difficulties and often poor results, a management must assume the odds for success are better if an endeavor is intelligently planned and the known variables accommodated instead of relying on whims and chance (p.11-12)." The research by Ansoff et al. (1971) and Birley (1974;1976) seem to support the importance of planned search, but as noted in the previous chapter, the results are not clear when perceived success is used as the dependent variable. The study by Dory (1978) also supports the importance of planned search. Kitching (1967) found that firms with an acquisition strategy make more successful acquisitions than those that just react to opportunities. Finally, many acquisition experts, like Freier (1981) and Reed (1977), advocate planned search.

Freier (1981, p. 35-36) identifies three types of acquisition search approaches. The opportunistic approach involves identifying companies that are for sale and then developing screening and selection criteria. In the research approach, the acquiring company applies the screening and selection processes to determine which companies it would buy if they were for sale. Then managers determine which companies are for sale. Freier claims that the most widely used method is the combination approach. In this approach, the acquiring company first uses the screening process to define the minimum size, specific industries, and geographic location of the target companies. Qualified companies are then contacted to identify acquisition prospects. Finally, a selection process determines which prospects should be actively pursued. Apparently all of these approaches can be successful, but Freier thinks the combination method results in the most successful acquisitions.

But Cameron (1977) cautions that acquisitions identified by chance encounter "can be very successful and any framework for planning growth should never shut these opportunities out (p.22)." The evidence seems to suggest that planned search can increase the success of acquisitions, but it may not be necessary to success. The issue however, is whether or not planned search is a good predictor of successful acquisitions. For that reason, the following hypothesis is stated:

> Hypothesis PM 3. Planned initiation and search for an acquisition prospect results in the most satisfactory and effective acquisition.

Decision-Process Model Hypotheses

Turning now to the decision-process model hypotheses, many issues need to be discussed. This section first discusses descriptive hypotheses about the corporate acquisition decision process. Then hypotheses about the effects of acquisition experience, strategic risk, and source initiating the process on decision-process characteristics are grouped together and discussed. Finally, the effects of decision-process characteristics on acquisition success are discussed.

Descriptive Hypotheses

Knowing what activities occur during the acquisition decision process and how frequently may have descriptive and prescriptive value separate from knowledge about the causes or the consequences of process characteristics. Each of the following hypotheses states what is expected about the content of the acquisition decision process for four of the five decision-process content characteristics.

What constitutes an activity? According to Lofland (1971), "Activities refer to collective conduct that (1) takes days, weeks, or months to play through, (2) encompasses a relatively large segment of actors' time, and is likely to be engaged in collectively and conjointly in a social setting, instead of more individualistically and privately (p. 20)." Many activities occur as part of the acquisition decision process. Some are closely related and can be grouped to characterize the content of the decision process. The following activities are discussed: formal analytical activity, intensive search activities, CEO activities, and discussion and group decision-making activities.

So what formal analytical activities occur as part of the acquisition decision process? Bradley and Korn (1979) state that "In the past, acquisitions were all too often made on the strength of a brief analysis of short-term earnings potential, plus some consideration of it and longer-term issues; frequently it was an outside source that brought the prospect to light. While the services of finders and intermediaries remain important, and while short-term earnings cannot be overlooked, today's efforts are more likely to involve heavier staff inputs involving organized prospect searches and consideration of various strategic possibilities and post-merger management questions (p. 49-50)."

Many merger experts claim the following activities occur: evaluating data, coordinating acquisition activity with plans and objectives of the buyer's enterprise, arranging financing, investigating tax issues, preparing financial projections, and making demand forecasts. Experts prescribe many analytical activities and some of the descriptive research suggest it occurs (cf., Mace and Montgomery, 1962, and case studies). For these reasons, the following is expected:

> Hypothesis D 1. Extensive formal analytical activity occurs during the investigation of acquisition prospects.

How much intensive search occurs? According to Mace and Montgomery (1962), during an investigation of a prospect "the typical procedure is to secure a Dunn & Bradstreet report and to review Thomas' Register of American Manufacturers, and Poor's and Moody's for pertinent data. If the public has had a public offering, the prospectus is a most useful document. If the company is listed, the 10k form is filed with the stock exchange and with the Securities and Exchange Commission and this too is public information. In addition, annual reports, trade literature such as catalogues and brochures, advertisements in trade journals, special reports by the many investment services, and newspaper and magazine stories provide considerable information about the company (p. 106-107)." This study and the case studies suggest that much intensive search occurs during the investigation of prospects. Rees' (1966) hypothesis about more intensive search when the variation in quality of products in the market is high further supports the following hypothesis:

> Hypothesis D 2. Many information sources are used and used frequently by buyers during the investigation of an acquisition prospect.

How involved is the CEO? In acquisition decision making, the final authority and approval for an acquisition must come from the board of directors, but board committees are rarely involved in acquisition investigations. The CEO seems to make the major decisions (cf., Bing, 1980). And many authors suggest that the CEO should be very actively involved in the investigation of prospects (cf., Mace and Montgomery, 1962). But in larger organizations, the role of the CEO may be more limited than in smaller organizations (this view is supported by some authorities, case study information, and interviews conducted as background for this study). In large organizations, more people hold general management jobs (cf., Kotter, 1982) and responsibilities for acquisitions and mergers, especially small and medium-sized acquisitions, may be delegated to division presidents or group vice presidents. Kotter (1982) concluded that differences in the size of organizations, their age, performance level, product/market diversity, and organizational diversity may result in significant differences in the general manager's job (p. 123). The research by Brown and O'Connor (1974) and O'Connor (1980) summarized in the previous chapter also suggests differences in the role of planning executives and CEOs in acquisition programs. The following hypothesis is proposed:

> Hypothesis D 3. CEO's are actively involved in acquisition decision-process activities, especially in small organizations.

How much discussion and participation occurs? Many authors argue that acquisitions committees should be established to conduct acquisitions programs (cf., Mace and Montgomery, 1962; McCarthy, 1966; Bradley and Korn, 1981). Reed (1978) discusses the use of groups in acquisition decision making. Bing (1980) states that in large acquisition programs a staff of people is often involved. Mace and Montgomery's (1962) results also suggest that many people are often involved. The decision processes at Chamberlain and

General Signal discussed in Chapter 1 seem to have involved many participants, much discussion, and some group decision making. The evidence seems to support the following descriptive hypothesis:

> Hypothesis D 4. Acquisition decision making is a participative process with at least some meetings and one-to-one discussions occurring about prospects.

Effects of Experience on the Decision Process

Some companies have more experience making acquisition decisions than do others. For a variety of reasons supported by the opinions of various authors and prior research studies, it seems possible to support five hypotheses about how experience alters the content of the corporate acquisition decision process.

What is the effect on analytical activity? Research and theory on organizational learning (cf., Duncan, 1974) suggests that the more experience a firm has making a particular type of decision the more likely it is that the decision process is programmed or routinized, this may increase the use of analytical tools like checklists. Boyd and Summers (1982) asked 75 managers to rate the extent "to which their strategic management/strategic planning decisions were based on the following approaches: quantitative analysis/quantitative models, non-quantitative models, but a structured process, and intuitive, entrepreneurial, gut reaction (p. 27)." Their results indicated that "less experienced planning executives tend to rely more on a formalized strategic planning process and less on intuitive, entrepreneurial reactions...The experienced managers seem to indicate that all three techniques are used about equally (p. 27)." They feel their findings might be explained by the experience of the managers. The evidence is limited and not definitive, but the following is hypothesized:

> Hypothesis DPM 1.1. The more experience managers in a firm have had making acquisition decisions, the higher the amount of formal analytical activity during the investigation of the acquisition prospect.

What is the effect on intensive search? Again Bing (1980) notes that "An intelligent decision requires information upon which to decide. Information gathering takes time, but the time can be shortened if those collecting data know how to secure the information, what is really needed and not needed, and how to assemble it into a useable form (p. 103)." So he feels experience reduces the duration of the search and makes it more efficient.

Ebert and Mitchell (1975) summarize a study by Kleinmuntz (1968) that attempted to uncover the structure of neurologists' search processes as they diagnosed illnesses. They state, "Kleinmuntz reveals that search efficiency and diagnosis accuracy were found to be related to the amount of hospital-ward experience of the neurologist. Fewer questions (information search) were asked by and fewer diagnostic errors were made by the more experienced physicians. Greater experience led to strategies of selectively discarding data that were irrelevant to the particular diagnosis. Data were remembered only if that piece of data was relevant to the diagnostic decision (p.90)." This study of individual decision processes also suggests experience makes search more efficient.

A study by Heslin and Streufert (1968) that used 72 students in a complex tactical and negotiations game suggests that as students mastered the task situation, they reduced their use of the environment as a source of influence on their decisions. This simulation study seems relevant to the acquisition decision process. As noted previously, acquisition decision processes often involve extensive interaction and negotiation between buyer and seller. Hage's model proposes that frequency is positively related to routinization which is negatively related to information search. The following is proposed:

> Hypothesis DPM 1.2. The more experience managers in a firm have had making acquisition decisions, the lower the amount of intensive search about the acquisition prospect.

Much of the descriptive literature advocates a uniformly high involvement for the CEO. Some descriptive research suggests this is not the case (cf., Brown and O'Connor, 1974). Also the interview with Sommers at Chamberlain Manufacturing (summarized in the first chapter) suggests that initially the CEO was very involved in the acquisition decision process, but that as the company made some acquisitions, activities got more formalized and staff members did more of the formal analytical investigation of prospects. The case study about General Signal Corp. and its president, Nathan Owen, suggests an opposite relationship. But it is proposed that the following occurs in most cases:

> Hypothesis DPM 1.3. The more experience managers in a firm have had making acquisition decisions, the lower the amount of CEO participation in acquisition decision activities.

Bing (1981) notes that "as an acquisition program progresses, a combination of confidence in those making the acquisitions and precedents established in prior acquisitions will increase the delegation of decision-making and willingness to make quick decisions (p. 105)." Hage's model also suggests that frequency is positively related to routinization which is negatively related to the amount of discussion. Hage also suggests that duration is a function of amount of information search and discussion. The following two hypotheses are proposed:

> Hypothesis DPM 1.4. The more experience managers in a firm have had making acquisition decisions, the lower the amount of participation in decision making during the invesitigation of the acquisition prospect.

> Hypothesis DPM 1.5. The more experience managers in a firm have had making acquisition decisions, the shorter the duration of the acquisition decision process.

Effects of Strategic Risk on the Decision Process

Many authors argue that acquiring a company is a high-risk growth strategy (cf., Fogg, 1976). Because of this high risk, careful acquisition planning and analysis is often advocated by acquisition specialists. They suggest that these activities can minimize the risk and lead to more successful outcomes. Prescriptive models of strategic analysis and planning (cf., Andrews, 1980, p. 39; Lorange, 1980, pp. 116-122) include risk as a criterion for evaluating strategies and plans, and the risk associated with a firm is supposedly related to the returns of the firm (Scherer, 1980, p. 292; Bettis, 1982, p. 22). Nevertheless, the relationship between expected risk associated with a decision and the characteristics of the strategic decision process are not discussed in the strategy literature. But in the organization theory literature, Hage (1980 and see chapter 2) includes risk as a major determinant of decision-process characteristics.

This section reviews prior research and theory, especially prescriptive theory, to develop hypotheses about the effects of the strategic risk associated with a specific acquisition on the type of decision process that managers will use. The hypotheses may not describe practice as much as they state prescribed relationships. The first hypothesis in this section is based primarily on prescription; i.e., more analytical activities should occur in high risk situations.

> Hypothesis DPM 2.1. The higher the strategic risk of an acquisition for the buyer, the greater the amount of formal analytical activities that will occur during the investigation of the acquisition prospect.

What about intensive search? Both March and Simon (1958) and Hage (1980) argue that when managers are faced with high risk decisions, they conduct an extensive information search. Cyert and March (1963) also argue that when a local search fails, which probably happens when a firm decides to evaluate acquisition prospects, then a wider-ranging, more global search occurs. Therefore based mainly on theory, the following hypothesis is proposed:

> Hypothesis DPM 2.2. The higher the strategic risk of an acquisition for the buyer, the greater the amount of intensive search for information about the specific acquisition prospect.

How does the CEO respond in high risk decision situations? Managers do not always perceive accurately the risk associated with a specific acquisition. But many organizations have rules and procedures that require involvement by more influential decision makers and push decisions up the organizational hierarchy when more money or resources will be committed by a specific investment proposal. This programming of the decision process would likely lead CEOs to be more involved in higher risk acquisitions. But in some organizations, CEOs may also be actively involved in lower risk acquisitions because they choose to be involved in them (see previous sections on CEO involvement). The following hypothesis is offered:

> Hypothesis DPM 2.3. The higher the strategic risk of an acquisition for the buyer, the greater the amount of CEO participation in acquisition decision activities.

What about participation? Vroom and Yetton (1973) present a decision tree for choosing an appropriate decision process. They argue that it is both descriptive and prescriptive of managerial behavior. The first criterion in their model deals with the importance of the decision. Their model seems to suggest that participation is more likely for important or high risk decisions. Duncan's (1974) research also suggests that risk and uncertainty are related to a more participative decision process. Finally, the Hage model proposes that involvement is positively related to risk, and that greater information search and discussion increases the duration of the process. The following two hypotheses are proposed:

Hypothesis DPM 2.4. The higher the strategic risk of an acquisition for the buyer, the greater the amount of discussion and group participation in decisions during the investigation of the acquisition prospect.

Hypothesis DPM 2.5. The higher the strategic risk of an acquisition for the buyer, the longer the duration of the acquisition decision process.

<u>Effects of Initiating Source</u>

As noted, many sources can identify acquisition prospects and hence initiate an acquisition decision process. For example, the source initiating an acquisition decision process may be a planned search for prospects by managers in the acquiring organization, or a finder, or managers in the selling organization.

Ansoff et al. (1971) found that firms were either planners or non-planners when making acquisitions. Use of planning and search for prospects seemed linked to formal investigation of the prospects and planning throughout the process.

Formal planning and search for acquisition prospects probably indicates that the CEO has tried to rationalize the acquisition search and decision process. Part of the rationalization of the process is likely to be delegation of some acquisition-decision process activities to specialists and other lower-level managers.

The Mintzberg et al. (1976) model seems to suggest a more extensive process for opportunity situations than for crises. The process is likely to be of shorter duration when it is initiated by a crisis or a problem. When sellers approach a company, that can be either an opportunity or a crisis. Planned search can be associated with either a problem situation or a perceived opportunity.

The absence of much theory or evidence about the relationship between the source initiating the prospect and the process leads to basing hypotheses on the generalization that planned search will be followed by a more formal and systematic process. The following five hypotheses are proposed:

> Hypothesis DPM 3.1. When an acquisition prospect is identified by a planned search rather than by another source, the amount of formal analytical activity occuring during the investigation of the prospect will be greater.

Hypothesis DPM 3.2. When an acquisition prospect is identified by a planned search rather than by another source, the amount of intensive search occuring during the investigation of the prospect will be greater.

Hypothesis DPM 3.3. When an acquisition prospect is identified by a planned search rather than by another source, the amount of CEO participation in acquisition decision activities will be lower.

Hypothesis DPM 3.4. When an acquisition prospect is identified by a planned search rather than by another source, the amount of discussion and participation in making decisions during the investigation of the acquisition prospect will be greater.

Hypothesis DPM 3.5. When an acquisition prospect is identified by a planned search rather than by another source, the duration of the acquisition decision process will be longer.

Effects of Process Characteristics

Do decision-process characteristics affect the success and effectiveness of an acquisition? Can the actions and activities of managers during the investigation of a prospect have an impact on the effectiveness of an acquisition? Does more formal analytical activity have benefits? Baker, Miller, and Ramsperger (1981) state, "Recent acquisitions are more soundly based than were those of the 1960's. Acquiring firms are placing more attention on long-run consequences. As a result, emphasis is given to expected earnings and growth rates in negotiating terms. Discounted cash flow analysis is being used extensively to determine the value of merger and acquisition candidates. As a result of more sophisticated analyses, it is anticipated that the future will not see a rash of casualties such as those that emerged from the ill-conceived marriages of the late 1960's (p. 56)."

Bing (1980) also feels formal analytical activity has benefits. He states "Not only must a prospect be studied and systematically evaluated, but also the entire industry, economy, environment and socioeconomic and political climate in which it conducts its business. In-depth studies are not guarantees that an acquisition will prove successful, but the odds of success increase immensely if comprehensive studies of all relative factors have been made and no significant factors have been discovered that show success to be improbable (p. 47)."

McCarthy (1966) holds a similar view. He states, "To most companies, a corporate acquisition or business combination is far from a routine matter. Accordingly, it is vital that company officers and directors have all the facts to enable them to reach an informed decision on the merits of a proposed transaction. Although imagination and enthusiasm are important ingredients in the successful operation of a business enterprise, when it comes to planning and negotiating for a corporate acquisition or merger careful investigation and evaluation of pertinent factors are of even greater importance (p. 577)."

Some formal analytical activity seems to have many benefits. For example, using checklists and applying criteria may reduce the halo effect, where several favorable attributes of a prospect distort a buyer's evaluation of other attributes (cf., Bing, 1980). But, Ansoff et al. (1971) found that firms doing thorough investigations reported as many failures as those doing cursory investigations.

Doing an extensive analysis may also have negative consequences. The work demanded of both buyer and seller can discourage completion of the acquisition: the buyer becomes inundated with data; the seller becomes impatient and begins looking for other buyers (cf., Bing, 1980).

But as Short (1967) and others, including Andrew Carnegie, have noted, good deals are sometimes missed because of extensive investigation and a failure to act quickly when an opportunity arose. But bad deals are often avoided by taking extra time for careful investigation and deliberation. The following hypothesis argues that benefits do result from greater amounts of formal analytical activity:

> Hypothesis P 1. The greater the amount of formal analytical activity during the investigation of the prospect, the more satisfactory and effective the acquisition.

Are there benefits of extensive information search? Much of the material presented for hypothesis P 1 is also relevant to the issue of information search.

Bing (1980) states, "(A) formal evaluation is necessary and, to be worthwhile, it must be comprehensive, which will require a real effort and substantial expense. The belief that the more information one has about a prospect, and the more extensive the evaluation, the better will be the buyer's decision is not necesarily true. Much information about a company can be gathered that is interesting, but of minor or no importance to making an acquisition decision (p. 132)."

McCarthy (1966) and others advocate obtaining as much information as possible on all prospects. O'Connor (1980) notes the high cost of this and in the previous section it was noted this situation can result in data overload for the buyer and impatience for the seller.

But Linowes (1968) suggests a detailed investigation of the managers of the acquisition prospect, including how creative they are, who makes the decisions, and their motivations, can avoid later implementation problems. And on a similar positive note Hennessy (1966) argues, "There are a great number of reasons for marginally successful business combinations-the chief one being inadequate investigation prior to signing the agreement. During the preliminary investigative phase, it is quite often difficult to probe in depth for conditions within an acquisition condidate that can give rise to later problems (p. 219)." There is little evidence about this, but based on Rees' (1966) argument, the following is hypothesized:

> Hypothesis P 2. The greater the amount of intensive search about an acquisition prospect, the more satisfactory and effective the acquisition.

What about the benefits of CEO involvement? Olm et al. (1981) note that some CEO's seem to dominate the acquisition decision process at their companies. For example, they claim Willard F. Rockwell, Jr. "was recognized as the driving force behind the company's development because of his philosophy of growth and diversification, and his penchant for acquiring companies (p. 478)."

Bing (1980, p. 67), Mace and Montgomery (1962), O'Connor (1980) and many others argue that the CEO must play a continual and very active role if acquisitions are to be successful. The CEO must create an environment where acquisitions have a high priority for time and other resources. The CEO must make decisions promptly. The CEO must be accessible to those involved in the acquisition program. The CEO must meet important sellers.

In the Spectra-Physics Case, (Stanford Business Cases, 1973 in Paine and Naumes, 1982) the following statement is made

> A successful acquisition program requires the personal involvement of the President. He carries a selling prestige into all phases of the negotiations, especially in making the important, initial contact to a major potential acquisition. The involvement of the President gives him first-hand knowledge he needs to persuade the Board of Directors to accept a deal. Almost as important, the top management personnel who will eventually integrate the acquired company into Spectra-Physics must involve themselves in the evaluation and negotiation phase of the acquisition process (p. 195).

The following hypothesis seems to be the consensus of the normative literature.

> Hypothesis P 3. The greater the participation of the CEO in acquisition decision process activities, the more satisfactory and effective the acquisition.

What is the consequence of greater participation and of a longer decision process? Many experts advocate forming an acquisitions committee. But greater participation results in costs, including more time spent on the process. However, the fewer the participants, the lower the input of different opinions and viewpoints that may improve the quality of the decision (cf., Huber, 1980, Bing, 1980).

In an early interview during this study, one manager noted that some acquisition decisions were made by only one person. Once the deal was completed, those who would implement it were told of the decision. The manager noted that this approach was not as successful as a more participative approach that has subsequently been adopted. Locke and Schweiger (1979) and House and Baetz (1979) review the literature on participative decision making. Their reviews suggest that especially at the policy-level it is not clear what is most desirable. The following hypotheses will be tested:

> Hypothesis P 4. The greater the amount of discussion and group decision making during the investigation of the acquisition process, the more satisfactory and effective the acquisition and the more effective the integration activities.

> Hypothesis P 5. Within limits, the longer the duration of the acquisition decision process, the more satisfactory and effective the acquisition.

Conclusions

Many of the above hypotheses (see Table 4.1) are speculative and based on minimal empirical support. In some cases "a flip of the coin" could have decided the direction of the relationship, but a choice was made based on the available evidence and based on what seemed consistent with the theoretical framework that was developing. The Hage model was especially influential in choosing the directions of relations in many of the hypotheses.

Table 4.1

Summary of Hypotheses

Hypothesis PM 1. The greater the experience of managers in the buying firm, the more satisfactory and effective the acquisition.

Hypothesis PM 2. The greater the strategic risk associated with a specific acquisition, the less satisfactory and effective the acquisition.

Hypothesis PM 3. Planned initiation and search for an acquisition prospect results in the most satisfactory and effective acquisition.

Hypothesis D 1. Extensive formal analytical activity occurs during the investigation of acquisition prospects.

Hypothesis D 2. Many information sources are used and used frequently by buyers during the investigation of an acquisition prospect.

Hypothesis D 3. CEOs are actively involved in acquisition decision process activities, especially in small organizations.

Hypothesis D 4. Acquisition decision making is a participative process with at least some meetings and one-to-one discussions occurring about prospects.

Hypothesis DPM 1.1. The more experience managers in a firm have had making acquisition decisions, the higher the amount of formal analytical activity during the investigation of the acquisition prospect.

Hypothesis DPM 1.2. The more experience managers in a firm have had making acquisition decisions, the lower the amount of intensive search about the acquisition prospect.

Hypothesis DPM 1.3. The more experience managers in a firm have had making acquisition decisions, the lower the amount of participation of the CEO in acquisition decision activities.

Hypothesis DPM 1.4. The more experience managers in a firm have had making acquisition decisions, the lower the amount of discussion and participation in decision making during the investigation of the acquisition prospect.

Table 4.1 (continued)

Hypothesis DPM 1.5. The more experience managers in a firm have had making acquisition decisions, the shorter the duration of the acquisition decision process.

Hypothesis DPM 2.1. The higher the strategic risk of an acquisition for the buyer, the greater the amount of formal analytical activities that will occur during the investigation of the acquisition prospect.

Hypothesis DPM 2.2. The higher the strategic risk of an acquisition for the buyer, the greater the amount of intensive search for information about the specific acquisition prospect.

Hypothesis DPM 2.3. The higher the strategic risk of an acquisition for the buyer, the greater the amount of participation of the CEO in acquisition decision activities.

Hypothesis DPM 2.4. The higher the strategic risk of an acquisition for the buyer, the greater the amount of discussion and group participation in decisions during the investigation of the acquisition prospect.

Hypothesis DPM 2.5. The higher the strategic risk of an acquisition for the buyer, the longer the duration of the acquisition decision process.

Hypothesis DPM 3.1. When an acquisition prospect is identified by a planned search rather than by another source, the amount of formal analytical activity occurring during the investigation of the prospect will be greater.

Hypothesis DPM 3.2. When an acquisition prospect is identified by a planned search rather than by another source, the amount of intensive search occurring during the investigation of the prospect will be greater.

Hypothesis DPM 3.3. When an acquisition prospect is identified by a planned search rather than by another source, the amount of participation of the CEO in acquisition decision activities will be lower.

Hypothesis DPM 3.4. When an acquisition prospect is identified by a planned search rather than by another source, the amount of discussion and participation in making decisions during the investigation of the acquisition prospect will be greater.

Table 4.1 (continued)

Hypothesis DPM 3.5. When an acquisition prospect is identified by a planned search rather than by another source, the duration of the acquisition decision process will be longer.

Hypothesis P 1. The greater the amount of formal analytical activity during the investigation of the prospect, the more satisfactory and effective the acquisition.

Hypothesis P 2. The greater the amount of intensive search about an acquisition prospect, the more satisfactory and effective the acquisition.

Hypothesis P 3. The greater the participation of the CEO in acquisition decision process activities, the more satisfactory and effective the acquisition.

Hypothesis P 4. The greater the amount of discussion and group decision making during the investigation of the acquisition prospect, the more satisfactory and effective the acquisition and the more effective the integration activities.

Hypothesis P 5. Within limits, the longer the duration of the acquisition decision process, the more satisfactory and effective the acquisition.

Chapter 5

DISCUSSION OF RESEARCH METHODOLOGY

Field studies of organizational decisions often require compromises on design, method and measures (cf., Mintzberg, Raisinghani, and Theoret, 1976; Witte, 1972). Making such compromises seems especially necessary for studies of corporate acquisition decisions (cf., Birley, 1974; 1976; Ansoff et. al, 1971). Studying acquisition decisions can be difficult because secrecy promoted by the securities laws hides the process from outside observers. Also, the economic importance of mergers and acquisitions may further limit retrospective data collection from participants. The constant interest in these decisions by government regulators at the Federal Trade Commission and Securities and Exchange Commission may also lead participants to be cautious and to make circumspect comments during interviews. Finally, the relatively few acquisitions of small and medium-sized companies each year causes additional problems for obtaining a large sample of participating companies. Of course, the importance of acquisition decisions and the absence of detailed information about acquisition decision processes were among the reasons why this study was considered necessary and was initially proposed. This chapter discusses how methodological questions and problems were resolved and explains the compromise methodology used in the study.

This research project combines historical, interview, survey research and correlational research methods (Gay, 1976; Gee, 1950; Kerlinger, 1973). Data were gathered from managers who had participated in a specific acquisition decision process that was officially completed between October 1, 1979 and March 31, 1980. The managers, who are sometimes referred to as key informants, completed a questionnaire that asked for retrospective information about acquisition decision activities for that acquisition, including the activities in which the CEO had participated, the sources used to gather information about the company that was eventually acquired, and implementation activities. In the questionnaire the managers also provided a current assessment of the performance and outcomes of that same acquisition. The data were collected using a mail survey instrument. Some data used in analyses were also collected from published sources.

The remainder of this chapter has five major sections. The first section summarizes the activities used to find organizations and collect data; then it explains the overall design that resulted. The second section presents the characteristics of participating organizations, their respective acquisitions, and the participating managers. The third section explains how concepts in the research hypotheses were measured and discusses the validity of the measures. The fourth section briefly discusses data analysis procedures for testing the hypotheses presented in Chapter 4. The final section discusses the difficulties and limitations of using retrospective reports from key informants to gather data; and then the section explains the strategies used in this study to reduce methodological problems.

Selection of Companies and Research Design

A number of information sources are available that document mergers and acquisitions involving U.S. companies. These sources include a journal, Mergers and Acquisitions, two newsletters, The Conference Board Report on Mergers and Acquisitions and Mergers and Corporate Policy, an annual publication of the FTC called the Statistical Report on Mergers and Acquisitions (1980), and annual summaries and a data base of W.T. Grimm and Co.. The quality of information, its frequency of publication and cost varies among these sources.

Although the FTC might be considered the official source of information, it is slow at compiling and publishing information about mergers and acquisitions (the most recently published report is for 1979), also its detailed data is limited to mergers where the acquired company had at least $5 million in assets. But, the "large" merger series has been compiled for many years and it is a complete historical record. Also, the FTC classifies mergers and acquisitions into different categories based on the type of acquisition that is involved. This classification scheme is briefly discussed in the section on concepts and measures.

Both newsletters have more timely information than Mergers and Acquisitions, but for that reason the information is more likely to be incomplete and have errors. Mergers and Acquisitions publishes information on mergers approximately one year after they have been officially completed. In many cases sales and profit data are provided for both the buyer and seller and a short description of the products and services of both companies is included for each entry. W.T. Grimm's data was costly to obtain. All of these sources have information about mergers, but after reviewing the possible sources, the quality, availability and cost of information from Mergers and Acquisitions led to the decision to use it to identify and select companies for the study.

What criteria should be used to select companies for the study? After reviewing some ideas in Kerlinger (1973) it was evident that appropriate criteria for selecting companies could enhance the quality of the study. So, selection criteria were chosen that accomplished one or more of the following purposes: First, the criteria should maximize systematic variance in the variables that are hypothesized to account for differences in the characteristics of corporate acquisition decision processes and if possible they should maximize variance in the process variables.

Second, the criteria should control any extraneous, yet systematic variance that may influence the characteristics of corporate acquisition decision processes. Some factors must be considered extraneous because they cannot be evaluated given constraints imposed by the hypotheses of interest and because of the practical limitations on the scope of this study. Examples of factors that cannot be included that may influence the content of an acquisition decision process include: social and cultural factors; differences in laws and government regulations in different countries; private ownership of the buying firm; and buying and selling firms with an extremely small number of employees and limited capital, e.g., purchases of bars or restaurants.

Third, the criteria should reduce or minimize unsystematic error variance and methodological problems. For example, much of the information used to test the hypotheses in this study is collected from retrospective accounts. This type of historical research using informants is plagued with a number of problems. This method, its problems and limitations are discussed more extensively in the fifth section, but two problems, forgetting and distortion due to later events, can be somewhat dealt with by establishing appropriate selection criteria. For example, the more recent the completion of the acquisition given that sufficient time has elapsed to measure dependent variables the lower the amount of error due to forgetting. And the closer in time, the more contemporaneous the acquisitions, the more that methodological problems will be common to all informants. In addition to selection procedures, the measuring instrument was also developed to help control error variance.

Finally, the selection criteria should increase rather than unnecessarily restrict the generalizability of the results from the study. If possible, the results of the study should be generalizable to firms with characteristics similar to those in the study. Also, the results should generalize to future acquisition decisions.

The following rules seemed most likely to maximize systematic variance in the variables, control extraneous systematic variance, minimize error variance, and place no unnecessary restrictions on generalizability.

1. Both the buying and selling companies were chartered in the United States.
2. The acquisition was completed between October 1, 1979 and March 31, 1980 and reported in Mergers and Acquisitions.
3. The stock of the acquiring firm was publicly held.
4. Firms buying companies primarily doing business in heavily regulated industries were excluded, e.g. electric utilities, banking, insurance, trucking, TV and radio.
5. Some information was available to classify the type of acquisition, e.g. a related acquisition, product extension or a totally unrelated acquisition.
6. The sales of the selling firm are greater than $1 million.

Companies that had completed acquisitions were screened with the above criteria to create a pool of 92 companies for the study. Early in the study, a research design was proposed where 8 related and 8 unrelated acquisitions made by buyers with sales of $5 to $300 million in sales, and 8 related and 8 unrelated acquisitions made by buyers with sales greater than $300 million would be studied. The small number of unrelated acquisitions that were made in the 6 month target period and the low response rate made it impossible to impose this design constraint. In the next section on data collection procedures it should be noted that in the initial mailing an effort was made to meet this constraint and to arrange phone interviews. Also, in the section on sample and participant characteristics it should be noted that the final sample had some approximately equal sized groups. For example, about half of the buyers (respondents) had sales of $5 to $300 million.

Data Collection

Collecting the data for this study involved numerous contacts with managers and their secretaries. The steps and activities presented in Table 5.1 were completed to collect the data. Once the 92 companies that met the selection criteria were identified, the next activity was to locate names, addresses and phone numbers for the Chief Executive Officers (CEOs) of the companies. The 1981 Million Dollar Directory was used to gather that information. In

Table 5.1

Summary of
Data Collection Procedure

1. January 18 to February 1, 1982 -- Identified 92 companies meeting selection criteria (used Mergers & Acquisitions and The Million Dollar Directory).

2. February 1 to February 5 -- Mailed letter to Public Relations Directors requesting annual report and information on the CEO.

3. February 8 to February 23 -- Tried to confirm the identity of the current CEO.

4. February 23 to March 1 -- Mailed a personalized letter to the CEO of each company requesting participation in the study.

5. March 3 -- Sent follow-up mailing to those Public Relations Directors that had not sent annual reports and background information about the CEO.

6. March 29 to April 2 -- Sent follow-up mailing to CEOs that had not responded to the first letter. A copy of the questionnaire was sent with this letter.

7. March 29 -- Mailed a letter and the questionnaire to 14 key informants identified by CEOs in response to the first mailing.

8. April 13 to June 6 -- Made follow-up phone calls to firms that did not respond to the mailings.

9. April 6 to May 15 -- Phoned 14 key informants to arrange an interview.

10. April 6 to June 15 -- Conducted interviews or had short discussions with key informants.

11. January 25 to July 6 -- Atempted to obtain data from securities analysts.

12. July 26 to August 6 -- Obtained 1979 and 1981 segment data (Return on Assets) from company annual reports.

the few cases where the person serving as CEO was not designated in the directory, the president of the company was chosen as the contact person.

The next step was to write the Director of Public Relations to ask for an annual report and background information about the CEO. The CEOs were then contacted by letter to request their firms' participation in the study (see Appendix 1). A few weeks following the initial letter, a follow-up letter was sent to CEOs who had not responded. Phone calls were also made by a graduate assistant to the secretaries of the CEOs to determine if the letter had been received.

The information eventually received from the Public Relations Directors of all 92 companies identified some changes in the management of the companies. In perhaps 3 or 4 companies, managers may not have participated because the initial letter was not sent to the then current CEO. The annual report also provided important background information on the companies that was useful during interviews. Some financial data were checked in the annual reports and the reports were scanned for information about merger and acquisition activity.

In the initial letter to the CEOs, the researcher requested "If you or another manager with primary responsibility for your acquisition program would consider spending 30-45 minutes talking with me about one of your acquisitions, then please complete the enclosed project participation form". Fourteen companies completed the project participation forms. Given that managers seemed hesitant to take the time for an interview, in the follow-up mailing the research questionnaire (see Appendix 2) was included. In all cases the CEO (or possibly organizational procedures for routing mail) designated himself or a subordinate as the key informant for this study. All of the key informants were known by name to the researcher and he has corresponded with each of them twice since data were collected.

A personal letter and the research questionnaire were sent directly to the key informant in 14 companies on March 29, 1982. The letter stated that the researcher would be calling the informant to talk about the study at a specific time and date following receipt of the letter. Also, the letter mentioned the prior contact with the company. The researcher attempted to schedule an appointment with the key informants to discuss their responses to the questionnaire and to discuss the acquisition of interest in the study. Even though I was persistant, it was possible to have complete interviews with only seven informants. Six other informants spoke with me for 5-10 minutes.

In the original research proposal, plans were made to collect performance data on the acquisitions included in the study from securities analysts. Managers at a large New York commercial bank and a large investment banking firm agreed to ask their securities analysts to make the evaluations. The analysts however claimed that they did not have enough information to make evaluations. A number of analysts were interviewed by phone about specific aquisitions and a common remark was "I would have to call someone at the company to get that information". As a substitute "objective" measure of performance pre- and post-acquisition segmental data on Return on Assets was collected from annual reports. The problems with using this data as a performance measure are discussed under dependent variables in the section on measurement.

Sample and Participant Characteristics

For this study, twenty-six managers provided information about 28 small and medium-sized acquisitions completed between October 1, 1979 and March 31, 1980. Originally, CEOs in 92 companies were asked to participate in the study. Table 5.2 summarizes the responses from the CEOs. As a result of the procedure documented in the previous section, 29 managers eventually agreed that their firms would participate. This is a positive response rate of 31%. Questionnaires were completed however by only 26 managers. Two managers could not identify an informant qualified to complete the questionnaire (due to turnover). The third manager was interviewed, but the peculiarities of the "acquisition" and subsequent divestiture of the unit made use of the research schedule inappropriate. Despite repeated contacts, twenty eight managers did not respond to my letters and thirty five responded negatively to my request. Negative responses are grouped into the nine categories in Table 5.2. One reason for the low response rate in this study may be the sensitivity of corporate acquisition decisions. Concern about possible actions of government regulators like the FTC and SEC and concern about giving competitors an advantage and the size of some acquisitions may have made managers especially reluctant to provide information about their corporate acquisition decision processes.

According to the companies' annual reports and data in the issue of Mergers and Acquisitions that reported the acquisition, sales prior to the acquisition for the 26 acquiring companies ranged from about $10 million to more than $4.5 billion. An analysis of the sales data suggests that there are two distinct groups of acquiring companies. One group includes 9 very large firms that acquired 11 of the companies in the study. 1979 sales for this group ranged from $450 million to more than $4.5 billion. Seven of these companies had 1979 sales of more than $1 billion. The second group of acquiring companies included 1 small company with 1979 sales of approximately $10 million; 11 medium-sized companies with 1979 sales of approximately $75 million to $200 million; and 5 companies with 1979 sales of $200 to $450 million.

According to data in The Million Dollar Directory (1981), the group of large companies have an average of 45,000 employees each.

Table 5.2

Summary of

Responses to Request for

Participation in the Study

	Number
Total Positive Responses	29
were able to provide information	26
were not able to provide information	3
Total Negative Responses	35
against company policy to answer questionnaires	5
no time to participate	7
firm was acquired by another company	3
not interested	11
acquisition deemed insignificant	2
not in a position to participate	2
cannot participate	3
questionnaire returned	1
against policy to release information	1
Total Failure to Respond	28
OVERALL TOTAL	92

The range is from more than 9,000 employees to about 115,000 employees. The group of small and medium-sized companies have an average of 3,000 employees each. The range is from 950 employees to approximately 6,600.

Table 5.3 compares the sample to the universe of companies originally selected for the study. The 92 companies completed 104 acquisitions during the period October 1, 1979 to March 31, 1980. The table categorizes sellers into six categories based upon sales along the left side of the table. The buyers are categorized into five categories along the top of the table. The percentages indicate how many acquisitions in each cell in the table were included in the study. Buyers did not provide information about 30 selling firms where no sales information was available. These companies were probably privately held and very small at the time when they were acquired. Small and medium-sized sellers and all classes of buyers are well represented in the sample. A second significant gap in the data is large firms that acquired sellers with sales of more than $100 million. Managers were apparently reluctant to discuss these acquisitions.

Data obtained from the managers participating in the study provide the following profile of the acquisition activity of participating companies. The data appear consistent with information in Mergers & Acquisitions. During the period 1975 to 1979, each of the companies in the study investigated an average of

Table 5.3

Size Comparison of Participating and Non-Participating Companies and their Acquisitions

Sales of Acquired Firm \ Sales of Buyer	Up to 75 M	75 M to 200 M	200 M to 450 M	450 M to 4.5 B	Greater than 4.5 B	Subtotal
No Sales Information	10 0%	4 0%	3 0%	12 0%	1 0%	30 0%
1 million to 10 M	6 0%	14 50%	3 66%	13 31%	4 50%	40 37.5%
10 million to 60 M	2 50%	6 66%	3 100%	9 44%	2 0%	22 55%
60 million to 100 M	0 0%	0 0%	0 0%	1 0%	1 0%	2 0%
100 million to 350 M	0 0%	1 0%	0 0%	3 0%	3 0%	7 0%
Greater than 350 M	0 0%	0 0%	0 0%	2 50%	1 0%	3 33%
Total number of Companies % of Participants	18 6%	25 44%	9 56%	40 23%	12 17%	104 27%

Size of buyer in Sales $

a b

a = total number of companies

b = percentage of participants

98 companies as acquisition prospects. Managers in the companies actually acquired an average of 8 companies during the period. But, many of the companies acquired only one or two companies during the period and a few companies each acquired more than 35 companies.

All of the acquiring companies can be classified as primarily manufacturers, although some of the conglomerates also have financial and service subsidiaries. Some of the companies produce high technology products. The range of manufactured products is diverse and includes industrial products, consumer products, food products, chemicals and computer products and components. According to data in The Million Dollar Directory (1981) some of the companies' products were classified under only one 4-digit SIC code, which indicates those companies were not diversified. While other companies had their major product lines in the maximum of six 4-digit classifications provided in the directory, the average number of 4-digit classifications listed for the participating companies was 3.43. These data seem to indicate that most of the participating companies were diversified.

The headquarters of the participating companies are in 13 states. Twelve companies have headquarters in the East; 12 have headquarters in the Midwest; 1 company is headquartered in the Southwest; and 1 in the West. Two of the participating companies have been acquired since the data for the study were collected.

Based on data about the products of the acquired company, most of the acquired companies are best classified as related acquisitions (Salter and Weinhold, 1980). According to data in Mergers and Acquisitions and data from the participating managers, all of the acquired companies had sales prior to the acquisition of more than $1 million. Fourteen of the acquired companies were small, with 1979 sales of $1 to $10 million. Thirteen of the acquired companies were medium-sized with 1979 sales of $10 to $35 million. One acquired company was large with 1979 sales of more than $350 million.

The managers participating in the study included 6 CEOs from medium sized companies and 12 acquisition specialists from medium and large-sized companies (see Table 5.4). All of the participating managers were men and each had apparently worked for the participating company a minimum of three years. The participants in the study reported spending an average of 206 hours on activities related to the acquisition decision process of interest. Some spent much more time in acquisition related activities and a few spent only 10-15 hours in activites related to the specific acquisition. In the questionnaire each participant was asked to indicate the amount of his involvement in the acquisition decision process on a scale where 1 meant low involvement and 10 meant high involvement. The average level of involvement was very high, 8.7 on the 10 point scale. The standard deviation of the responses was 2.16 and the range of responses was from 2 to 10. Ten of the managers indicated

Table 5.4

Titles of Participating Managers

Title	Number
CEO, Chairman of the Board, President	6
Vice-Presidnet or Director of Acquisitions/Corporate Development	12
Treasurer	2
Division President or Division Vice-President	4
Vice-President and General Counsel	2
TOTAL	26

on the questionnaire that they had consulted records or other managers in the organization to provide answers for some questions.

How representative is this group of companies and their respective acquisitions? As noted in the first chapter this is primarily a study of the decision process associated with acquiring small and medium-sized companies. This limitation on the generalizability of the results was not intended, rather it is a consequence of the decisions made by CEOs who were asked to participate. Both large, very large and very small acquisitions have not been adequately sampled in this study.

Measurement of Concepts

At the beginning of this research project, an appropriate instrument was not available to measure the concepts in the hypotheses discussed in the prior chapter. Therefore, a major task of this project was to develop appropriate measures. Prior to making the decision to develop a new measure, the questionnaires developed by Mintzberg, Raisinghani and Theoret (1976) and by researchers at the University of Bradford (1981) were reviewed. The Mintzberg et al. instrument was a set of open-ended questions that seemed unworkable and inappropriate for the proposed research. The questionnaire designed by the Bradford group was much more structured, but it was designed for in-person interviews and the scales seemed too broad for the proposed study. A third questionnaire used by Birley (1976) seemed more appropriate, but the actual questions (cf., Birley, 1974) could not be reviewed until after this research project was almost completed because of the difficulties in obtaining dissertations from England. In selecting the hypotheses developed in the previous chapter, concern about measurement issues influenced which concepts were included and which were excluded from this project.

This section has two main purposes. The first is to explain how the independent, moderating, decision process and dependent variables included in this study (see Table 5.5) are measured by questions in the research schedule developed for the project (see Appendix 2). Included as part of this discussion is an explanation of scoring procedures for the measures. The second major purpose is to discuss the design and development of the research schedule.

Developing new measures for a set of concepts, especially policy-related concepts, is not a task that should be casually begun. Duncan (1979) notes that "Policy research questions are complex and involve a large number of variables that have been very difficult to measure (p. 429)." Developing valid and reliable measures is a difficult task, and certainly this one study did not and could not demonstrate conclusively that the measures that were developed are useful for investigating the intended concepts. The measures that were developed are limited to corporate acquisition decisions, rather than broadly applicable to many decision issues.

Table 5.5

Summary of Variables

CONCEPTS	VARIABLE NAME	SCALING #	RANGE OR VALUES
1. DETERMINANTS			
Risk	Perceived Risk	I	1(low) - 10(high)
	Business Relationship	N	1(low) - 4(high)
	Acquisition Strategy	N	1(related); 2(unrelated)
	Ratio of Seller Sales to Buyer Sales	R	.01(low) - 3.5(high)
Experience	Perceived Experience	I	1(low) - 10(high)
	Number of Companies Investigated	R	1(low) - 999(high)
	Number of Companies Acquired	R	1(low) - 100(high)
Type of Initiation	Type of Initiation of the Acquisition	N	
2. MODERATORS			
Size	Sales of Buyer	R	$10M - 4.3B
	Employees of Buyer	R	100 - 150,000
	Total Revenue of Buyer 1979	R	$10M - 4.6B
Implementation	Effectiveness of Integration Activity	I	1(low) - 10(high)
	Amount of Integration Activity	O	1(low) - 6(high)
3. PROCESS CHARACTERISTICS			
Amount of Formal Analytical Activity	Amount of Formal Analytical Activity	O	0(low) - 14(high)

Table 5.5 (continued)

Summary of Variables

CONCEPTS	VARIABLE NAME	SCALING #	RANGE OR VALUES
3. PROCESS CHARACTERISTICS (continued)			
Amount of Intensive Search	Amount of Intensive Search	O	0(low) - 39(high)
	Use of Outside Experts	O	0(low) - 15(high)
	Use of Secondary Sources of Information	O	0(low) - 15(high)
	Direct Contact with the Company	O	0(low) - 9(high)
Amount of CEO Involvement	Amount of CEO Involvement in Activities	O	0(low) - 6(high)
	Perceived CEO Involvement	I	1(low) - 10(high)
	Number of hours of CEO Involvement	R	1(low) -500(high)
Amount of Participation in Decisions	Amount of Participation in Decision Making	O	0(low) - 18(high)
Duration in months	Duration in months	R	1(short) - 35(long)
4. PERFORMANCE			
Acquisition Effectiveness	Acquisition effectiveness	I	7(low) - 70(high)
	Financial performance	R	-.1(low) - .1(high)

#R = ratio scale; I = intervale scale; O = ordinal scale; N = nominal scale

Limiting the scope of the measures made it much easier to research the domain of each concept. The measures are also more concrete and possibly more accurate than general measures developed for use with all types of organizational decisions. Also, the narrow, more concrete measures provide more useful descriptive information for managers who are planning and designing acquisition decision processes. And it seems likely that the acquisition decision measures had greater face validity for the participating managers.

The major disadvantage of using narrow, limited operationalizations of concepts is that comparisons of research for different types of decisions is hindered. But, since no valid, reliable general measures are available in the literature, direct comparisons of research results is not presently possible. Also, developing a narrow, limited measure may contribute to the development of more general measures. If a number of decision issue specific research schedules are developed, then a better understanding of organizational decision making may result. This is possible because the research schedule can capture many of the important factors and activities associated with the specific decision issue.

The greatest danger in constructing measures and defining concepts is that the very act of constructing the measure will limit or restrict the observer's perception of the phenomenon (cf. Duncan, 1979; Lofland, 1971). A closely related danger is that the informant's perceptions and interpretation of results will be limited or biased by an incomplete or inadequate measure. In this study, the characterizations termed rational analytic and bureaucratic process characterizations probably bias the content of the questionnaire (cf., Pfeffer, 1980). This bias is apparent in the comments of one of the pre-test reviewers who noted "The interview schedule you sent looks awfully good. It's well organized and seems to cover major points -- if one assumes that there is some logic that companies follow in the acquisition process." This bias makes it unlikely that the present results obtained from using the research questionnaire will uncover much evidence supporting the political and "garbage can" characterizations of the organizational decision process. This limitation is regrettable, but the questionnaire was intended primarily to measure selected characteristics of the acquisition decision process, rather than to provide definitive information about the appropriateness of using all of the characterizations to describe the process.

To the extent that it was possible, the validity and reliability of measures in the research schedule were evaluated using data collected in the study. Those analyses are presented in succeeding paragraphs and they support the use of most of the measures for hypothesis testing. The variables in the following paragraphs are intended to measure concepts presented in the hypotheses developed in Chapter 4.

Independent Variables

Three concepts presented in the hypotheses can be classified as independent variables: experience making acquisition decisions; strategic risk; and type of initiation of the decision process. Some additional independent variables suggested by the literature were also measured but no hypotheses were developed for them in Chapter 4. The measures for each of the three major concepts are discussed extensively in the following paragraphs.

Experience making acquisition decisions. When managers participate in acquisition decisions, they gain experience that is valuable to them when they participate in and manage future acquisition decision processes. Managers also gain experience from seminars, books, and discussions with consultants. Each of these sources of experience must be considered to some extent in determining how experienced a company's management group is with acquisition decision making. One substitute for experience is procedures and records related to previous acquisitions. Another substitute for experience is to hire outside experts to assist in acquisition decision making. In this study, the measures of experience making acquisition decisions do not capture all of the factors that may substitute for direct experience making acquisition decisions.

The concept of experience is related to another important concept in the decision making literature, i.e. programmed and nonprogrammed decision situations (Simon, 1960). To make the distinction that a decision situation is programmed one needs to determine if the situation is routine and/or recurring. One component of the experience concept is how often similar decisions have been made in the past, so in firms that are making many acquisition decisions that is more a programmed than an unprogrammed decision situation.

Three measures of the experience concept were used in this study. All of the data were obtained from the participating managers. Secondary sources were scanned for obvious discrepancies but none were found. The managers were asked the following three questions (Questions 2,3 and 5 from the research schedule in Appendix 2):

Q2. How many companies did your firm investigate and examine as potential acquisitions during the period 1975 through 1979?

Q3. And how many companies did your firm actually acquire during the period 1975 through 1979?

Q5. Prior to the acquisition of CO. NAME, how experienced with acquisition decision making, search and negotiations did you consider the management team at YOUR FIRM? Please rate your management team on a scale of 1 to 10, where 1 means no one had experience and we were "flying by the seat of the pants" and 10 means we had extensive experience and we were all experts.

There are some deficiencies in these measures as previously noted, but each certainly includes part of the domain of the concept. But if one can assume there exists some short-run stability in the company's management group and that learning occurs from participating in prior decisions, then measures of acquisition activity indicate the experience of the management team. The best indicator may therefore be the number of potential acquisitions investigated and examined. But, the difficulty with this measure is that some managers in the personal interviews had difficulty determining the meaning of the phrase "investigate and examine". There appeared to be no ambiguity about how many companies were actually acquired and the responses seem consistent with published information. Also, in other studies this has been used as a measure of experience (e.g. Kelly, 1967; Allan, 1966; Brockhaus, 1975). The single item perceptual measure is a more global and perhaps a more direct indicator of overall experience, but some managers may have found it difficult to admit that the management team at their company was inexperienced.

The fact that the questions were presented sequentially may have created an order effect. Certainly managers were likely to perceive a relationship between the number of firms investigated and number of firms acquired and the subsequent question about experience making acquisition decisions. The variables, number investigated and number acquired, are highly correlated, $r = .62$ ($p <= .01$). Perceived experience is correlated with the number of companies acquired, i.e. $r = .36$ ($p <= .05$), but it is not significantly correlated with the number investigated. Correlations of the three experience variables with other independent variables are presented in Table 5.6. Theoretical ranges and the type of scaling for these variables are included in Table 5.5. Because of scaling differences, no attempt was made to aggregate these variables into a single scale. Each variable is used in tests of relevant hypotheses. A fourth experience variable concerning the acquisition decision experience of the CEO was included in the questionnaire (Q4), but informants had difficulty with the wording of the question and it is not used in the analyses of the hypotheses.

Strategic Risk. Most acquisition decision outcomes probably have at least moderate levels of risk associated with them and some are very high risk decisions. As noted in Chapter 2, Hage (1980) suggests that risk is an important predictor of decision

Table 5.6

Intercorrelations among Independent Variables

Items	1	2	3	4	5	6	7	8	9	10
1. Perceived Risk **	1.000									
2. Business Relation-ship	.17 (.208)*	1.000								
3. Acquisition Strategy	.30 (.058)	.39 (.029) n=24	1.000							
4. Ratio of Seller Sales to Buyer Sales	.25 (.097)	-.27 (.101) n=24	-.14 (.235)	1.000						
5. Perceived Experience	.04 (.427)	-.50 (.007) n=24	-.19 (.166)	.05 (.406)	1.000					
6. Number of Companies Investigated	-.10 (.314)	-.003 (.494) n=24	-.02 (.457)	-.12 (.273)	.02 (.466)	1.000				
7. Number of Companies Acquired	-.04 (.421)	-.03 (.444) n=24	-.21 (.142)	-.06 (.374)	.36 (.029)	.62 (.000)	1.000			
8. Type of Initiation of the Acquisition	.12 (.269)	.12 (.289) n=24	.11 (.285)	.29 (.066)	-.02 (.461)	-.10 (.312)	-.08 (.349)	1.000		
9. Financial Problems of Acquired Company	.36 (.033)	-.27 (.099) n=24	-.36 (.034) n=27	.12 (.273) n=27	.22 (.133) n=27	.12 (.276) n=27	.20 (.162) n=27	-.32 (.054) n=27	1.000	
10. Competition for the Acquisition	.12 (.275)	-.1895 (.188) n=24	-.02 (.456)	-.14 (.243)	.29 (.067)	.09 (.317)	.29 (.066)	-.11 (.294) n=27	.11 (.288)	1.000

*Numbers in the () are the significance levels of the correlation coefficients. Number of observations equals 28 unless otherwise indicated.

** Original scale reversed.

--- Intercorrelation among experience and risk variables.
— Intercorrelation among experience variables.

process characteristics. Also, Hage's ideas help define the domain of the risk concept. He notes, "Risk refers to the predictability of outcome...(p. 110)." He also notes that "the high-risk decision is not only one where the outcome is uncertain but where cost is high, experience is limited because the decision occurs infrequently and usually but not always there is a considerable discontinuity with previous strategic decisions (p. 111)." According to Bettis (1982), "Risk is usually taken to indicate some degree of hazard. For a firm the hazard is financial in nature. While bankruptcy and insolvency are extreme examples, lesser hazards such as modest earnings declines are more common (p. 22)."

The amount of strategic risk of corporate acquisition decisions seems to depend on the type of acquisition contemplated and subsequently made. Although firms often make diversifying acquisitions in unrelated products to reduce the overall risk of the firm's portfolio, the actual acquisition of a specific firm with unrelated products may be very risky because the company making the acquisition is not experienced managing that type of firm, the products and competitors are unfamiliar, and/or the customers and channels of distribution differ (Reed, 1979). Although some previous research suggests that diversifying or conglomerate mergers have higher risk than horizontal or vertical mergers (Kitching, 1967), Paine and Power's (1982) review suggests that restricting acquisitions to those with a "common core of unity" (Drucker, 1981) would not guarantee successful acquisitions. The evidence was summarized in Chapter 4.

In this study, type of acquisition strategy was used as one measure of risk. This was a nominal variable with two categories, related and unrelated acquisitions. Salter and Weinhold's (1980) definition of these two categories was given to three raters. They had information from Mergers and Acquisitions on the products of the buyer and seller and based on that information, they determined the acquisition strategy. The raters were given the following definitions from Salter and Weinhold (1980):

> Diversification can be said to be related if the following hold:
>
> 1) if diversification involves businesses serving similar markets;
> 2) if the businesses employ similar distribution systems;
> 3) if the businesses exploit similar science-based research; and;
> 4) if the businesses operate at different stages of the same commercial chain.
>
> Unrelated diversification involves a move into businesses that do not share any one of these four characteristics.

The interrater reliability of the judges was low. And even though after trying to reconcile the judgements there was a positive and significant correlation with the next variable, type of business relationship, this variable was not used to test hypotheses.

The Federal Trade Commission (FTC) also attempts to determine the type of acquisition that has occurred for larger acquisitions and mergers. These data were not available for the companies in the study, but the categories helped to create a variable called type of business relationship. The FTC's five categories are mutually exclusive. Mergers are horizontal when the companies involved produce one or more of the same, or closely related, products in the same geographic market. A vertical merger means the two companies involved had a potential buyer-seller relationship prior to the merger. Conglomerate mergers are classified into three subcategories: product extension, market extension, and other. Product extension mergers occur when the acquiring and acquired companies are functionally related in production and/or distribution but sell products that do not compete directly with one another. An example of a product extension merger would be a soap manufacturer acquiring a bleach manufacturer. Market extension mergers occur when the acquiring and acquired companies manufacture the same products, but sell them in a different geographic markets. An example of a market extension merger would be a fluid milk processor in Washington acquiring a fluid milk processor in Chicago. Other conglomerate mergers involve the consolidation of two essentially unrelated firms. An example would be a shipbuilding company buying an ice cream manufacturer (FTC, 1981, pp. 108-109).

In the questionnaire to measure type of business relationship, informants were asked Question 12:

Q 12. What was the business relationship of CO. NAME to YOUR FIRM?

1) A customer or supplier of OUR FIRM
2) A company with the same customers and products/services as OUR FIRM or a unit of our firm
3) A company that had customers and products/services with characteristics similar to those of OUR FIRM
4) A company that had customers and products/services with characteristics new to OUR FIRM

For analysis purposes, responses 1 and 2 were combined to indicate low risk acquisitions (n=5). Response 3 indicates medium risk acquisitions (n=13). Response 4 indicates high risk acquisitions (n=6). Four acquisition decisions could not be analyzed for this variable.

The third measure of risk, perceived risk, is a subjective one. The scaling is reversed in the tables in Chapter 6, i.e., 10 means high risk and 1 means low risk. The informant was asked Question 8:

Q 8. When CO. NAME was initially identified as an acquisition prospect, what did you think the chances in ten were that the consequences of an acquisition would be favorable to YOUR FIRM? Please answer on a scale from 1 to 10 where 1 means a very small chance of favorable consequences and 10 means it was certain that the consequences would be favorable.

A fourth measure of risk used in the study was the ratio of gross sales of the seller to gross sales of the buyer. Kitching (1967) used this type of a measure and found that it was very highly correlated with failure of acquisitions, but he found that when the ratio was small (less than 1 in 20), the acquired firms were more likely to fail, whereas larger acquisitions were more likely to be successful. This result is opposite what would be expected if sales ratio is a measure of risk. For the data from this study the sales ratio has a low negative correlation with perceived risk, i.e. r = -.25. But, it is intuitively appealing to conclude that there is a greater risk associated with proportionately larger than smaller acquisitions. This ratio has a range from a small positive number (.01) to approximately 3 or 4. Numbers greater than 1 indicate the selling firm was larger than the buying firm and that rarely occurs. Sales ratio seems like a more reasonable way to account for the cost of the acquisition than would gross sales of the acquired company. For example, in an early interview as part of this study, the statement was made that "The size of the acquired company doesn't necessarily define risk-- Company Z was a $300 million purchase, but it involved very little risk, it is one of only a few firms that can do what they do, and there is little chance of entry." Sales ratio indicates what proportion of the output of the buyer would be at risk if an acquisition was made. In many cases this indicator seems a component of the concept called strategic risk.

The validity of these measures of risk is difficult to determine. The correlation matrix in Table 5.6 suggests that different components of the domain of the risk concept are being measured. But note that predicted risk is likely to be very different from recalled risk. The measure of perceived risk is especially subject to errors of recall and distortion. One would expect that informants would have a tendency to report higher risk for acquisitions that subsequently failed. The distortion of risk perceptions of acquisitions that succeeded may be in either direction depending upon attitudes and characteristics of the informant. Also, the more objective measures of risk may tell us little about the risks that were anticipated and recognized by the decision makers and therefore influenced the decision process variables (see Bettis, 1982 for his discussion on measuring risk).

It is important to note that according to Hage, risk is likely to be highly related to experience making acquisition decisions. The correlations between the risk and experience measures averaged -.09, with a range from -.50 to .10. In general it seems that the less experience that the management team had, the more likely they were to make high risk acquisitions. But, they did not perceive the greater risk of the decision outcome. In this study the cost of the companies acquired ranges from $1 million to $400 million, but as noted previously the range on the size of the acquired companies is restricted to small and medium-sized companies. Nevertheless compared to many organization decisions, based on money committed, all of the acquisitions are high risk decisions.

Type of Initiation of the Decision Process. As was discussed previously, the identification of an acquisition prospect may occur in a number of different ways. One is for the acquiring firm to plan an acquisition program, conduct a rigorous search for acquisition prospects, and during that search identify the acquisition prospect that is eventually acquired. This type of initiation can be called "internal planning and search." A second means of identifying acquisition prospects is through intermediaries or finders. A third means that cannot be forecasted and should be considered opportunistic, is where a selling firm approaches a buying firm and suggests acquisition. A fourth source of initiation is some type of fortuitous identification of the prospect within the acquiring firm by a lower-level manager, member of the Board of Directors, or possibly the Acquisition Director or Chief Executive Officer when they are not actually searching for acquisition prospects. Type of initiation is a nominal variable.

Question 6 in Appendix 2 was used to gather information about the type of initiation.

Q 6. How was CO. NAME originally brought to the attention of managers at YOUR FIRM as a potential acquisition prospect?

1) A formal search for companies was conducted in-house at OUR FIRM, we identified CO. NAME
2) We were looking for companies and a finder brought CO. NMAE to our attention
3) We weren't looking for companies, but a finder brought CO. NAME to our attention
4) We were looking for companies and CO. NAME approached us
5) We weren't looking for companies, but CO. NAME approached us
6) We had previously made investments in CO. NAME and based on our knowledge we decided to consider them for acquisition
7) Don't know, don't recall
8) Other

Nine of the managers reported that his company conducted a formal search and identified the acquisition prospect. Finders identified 6 of the prospects for the eventual buyers and 6 sellers made the initial approach to the prospective buyers. Seven of the types of initiation are classified into a category called "other". The interviews suggested that informants were not having problems answering this question. Birley's (1976) data also suggest that managers should be able to accurately recall this information. But, they may misinterpret what category is most appropriate.

Other Independent Variables. In the questionnaire, managers were asked four additional yes/no questions that indicate other independent variables. Managers were asked the following four questions:

Q 9. Were formal acqusition objectives established prior to identification of CO. NAME as an acquisition prospect?

Q 10. Prior to the identifiction of CO. NAME as a prospect, did YOUR FIRM have a formal strategy and plan for finding suitable acquisition prospects?

Q 13. Were other companies aggressively competing with you to acquire CO. NAME?

Q 14. Was CO. NAME having financial problems at the time of the acquisition?

Moderating Variables

The two concepts called moderating variables in the decision process model, size and implementation, are also independent variables in the prediction model presented in Chapter 4. Specific hypotheses were not developed in Chapter 4 about the effects of these variables, but some post hoc tests were made. The small sample size makes it difficult to test for moderating variables.

Size. Kimberly (1976) states "Conceptual definitions of size are lacking. There is very little discussion in the literature about how size should or might be defined in a conceptual sense, although there is considerable consensus on how it should be operationally defined" (p. 574). Some of the various definitions of size include: "the scope of an organization and its responsibilities," the scale of operations, and the magnitude of the labor force. After reviewing these definitions and empirical studies, Kimberly concludes "By far the most common measure of size found in the literature is the number of employees" (p. 582).

Are any of the operationalizations of size correlated? Child (1973) correlated five possible measures of size and found a range of intercorrelations from .31 to .88. The highest correlation was between number of employees and net assets. Based mainly on Kimberly's analysis, this study used the number of personnel of the organization and the volume of organizational output as measures of size. Published sources were used to gather this information. Total sales was obtained from Mergers and Acquisitions for the fiscal year prior to the acquisition and from the Annual Report for fiscal year 1979. The number of employees was obtained from The Million Dollar Directory. Total sales in 1979 and the number of employees of the buyer were used to determine the effect of size on CEO involvement. Because of high intercorrelations and scale differences, no attempt was made to create a single size variable.

The average correlation among the three size variables was .98, with a range of .97 to .998.

Implementation. Implementation success and integration activities were included as moderating variables for the relationship between decision process variables and short-run outcomes in the decision process model in Chapter 4. Specific hypotheses were not developed. Implementation is a vague concept that is perceived by many as more important than decision making. Implementation deals with what occurs once a decision is made and how well those activities are performed. The participating managers provided the only information about implementation effectiveness and activities. The effectiveness of implementation activities was measured using a single item in the research schedule, Question 58. A global rating was made by the informant in response to the following question:

Q 58. On a scale from 1 to 10, where 1 means very ineffective and 10 means very effective, how effective were the activities to integrate CO. NAME with YOUR FIRM?

A second variable was also used to measure the concept of implementation. The amount of implementation activity was measured by a checklist of activities that the key informant reported did or did not occur. The list included installing a new control system, establishing specific objectives, establishing incentive and profit sharing programs, providing information to the labor force and resolving policy differences (see Questions 57.a -.e in Appendix 2). This variable was created by summing the yes answers of the informant that indicated the activity had occurred. The specific activities in the list were selected because various authors suggested that they were necessary if an acquired firm was to be successfully integrated with the buyer (cf., Bing, 1980; Parsons and Baumgartner, 1970; Mace and Montgomery, 1962).

These measures probably encompass only part of the concept called implementation. The hackneyed assertion that "how a decision is implemented is as important as what decision was made" can not really be tested, but these two measures probably incorporate part of the domain of that global concept.

Process Intervening Variables

This study includes a number of process variables: amount of intensive search, amount of analytical activity, amount of discussion and participation in decision making, amount of CEO direct involvement in acquisition activities, and duration of the decision process. The duration of the process is also a summary variable that can be considered an outcome of decision process activities.

Amount of Intensive Search. Intensive search refers to the amount of examination and investigation of the acquisition prospect by the acquiring firm and specifically the sources used to obtain information about the prospect. A number of managers in the acquiring company and sometimes external consultants and advisors gather information about the prospect and then the organization evaluates this information. Amount of intensive search refers to how many different sources are used to collect information about the prospect. This is similar to Rees' (1966) use of the term "intensive search."

Hage (1980) identifies a similar variable that he called the amount of information search. It is the extent to which interest groups seek facts relative to a decision issue. Only one interest group is explicitly considered in this study, the group known to the informant. The researchers in The Bradford Group (1981) identify a variable called scrutiny that refers to the examination of and production of information related to a decision topic. Scrutiny is a much more inclusive variable than the intensive search variable used in this study. The Bradford measure of scrutiny includes the following: searching for facts, involving experts, soliciting opinions about the alternatives and holding meetings to discuss the alternatives. The fourth component "holding meetings to discuss the alternatives" is not included in the measure of intensive search used in this study.

A list of information sources was provided the informants who were asked to indicate if each source was used during the investigation of the prospect. Some of the sources listed include:

brokers, investment bankers, industry experts, discussions with managers in selling firm, trade association reports and analyses, and plant visits. A complete list of the 13 sources is cited in Questions 38 to 50, Appendix 2. If the source was not used it is scored zero, if used on one occasion it receives a score of one; few occasions two, and many occasions three. The amount of search is determined by equally weighting the sources and summing the scores for each source. The theoretical range for this variable is from 0 to 39. Three subscales were created in a similar manner; use of experts (Questions 38 - 42), use of secondary sources (Questions 43 - 47) and use of direct contact (Questions 48 - 50).

The use of experts subscale includes five external sources of information: 1) business brokers; 2) management consultants; 3) stock brokers/analysts; 4) discussions with suppliers/customers of the prospect; and 5) industry experts. Secondary sources meeasures the amount of use of secondary information sources. The sources in the questionnaire were: 1) computerized data bases; 2) newspapers/magazines; 3) annual reports; 4) trade association reports: and 5) in house files/reports. The third subscale measures the amount of direct contact with the managers at the prospect company to obtain information. Three types of direct contact were identified: 1) discussions with managers in the selling firm; 2) visits to selling firm plants and offices; and 3) dinner and social meetings with managers in the selling firm. The subscales were scored in the same manner as the overall intensive search variable. Table 5.7 has the intercorrelations between the overall intensive search scale and the subscales. Some of the subscales are not correlated, so the overall measure and the subscales were used in tests of hypotheses.

Amount of Formal Analytical Activity. Especially for important decisions, managers engage in some activities which they perceive to be rational and analytical. The actual importance of these activities in influencing decisions is arguable, but to some extent they can be observed in most organizational decision processes. The amount of formal analytical activity associated with investigating acquisition prospects is considered an important process variable.

This variable was measured by presenting the informants with a list of fourteen activities judged as analytical. The list was derived from Mace and Montgomery (1962), Scharf (1971), Bing (1980), Parsons and Baumgartner (1970) and acquisition checklists from various companies. These sources recommend the use of some or all of the activities prior to every merger and acquisition decision made by managers at the buying company.

The informant was asked if each activity did or did not occur during the investigation of the company eventually acquired. Some of the activities include: market research study, made sales and earnings forecasts, prepared written plans to integrate company

Table 5.7

Intercorrelations among Process Characteristics

Items	1	2	3	4	5	6	7	8	9	10
1. Amount of Formal Analytical Activity	1.000									
2. Amount of Intensive Search	.48 (.005)*	1.000								
3. Use of Outside Experts	.09 (.332)	.60 (.000)	1.000							
4. Use of Secondary Sources of Information	.38 (.024)	.80 (.00)	.17 (.197)	1.000						
5. Direct Contact with the Company	.58 (.001)	.67 (.000)	.02 (.456)	.43 (.011)	1.000					
6. Amount of CEO Involvement in Activities	-.15 (.217)	-.17 (.195)	.08 (.335)	-.23 (.121)	-.22 (.134)	1.000				
7. Perceived CEO Involvement	-.25 (.100) n=27	-.30 (.066) n=27	.05 (.405) n=27	-.31 (.060) n=27	-.38 (.024) n=27	.82 (.000) n=27	1.000			
8. Number of hours of CEO Involvement	-.32 (.055) n=26	.07 (.376) n=26	.39 (.023) n=26	.12 (.276) n=26	-.41 (.019) n=26	.48 (.066) n=26	.54 (.003) n=25	1.000		
9. Amount of Participation in Decision Making	.31 (.056)	.41 (.016)	.34 (.038)	.09 (.331)	.45 (.008)	.02 (.466)	.03 (.438) n=27	-.01 (.480) n=26	1.000	
10. Duration (in mths)	.04 (.421) n=27	.09 (.322) n=27	-.22 (.134) n=27	.14 (.242) n=27	.25 (.102) n=27	-.16 (.214) n=27	-.23 (.134) n=26	-.16 (.222) n=26	.01 (.471) n=27	1.000

*Numbers in () are the significance levels of the correlation coefficients. Number of observations equals 28 unless otherwise indicated.

following the merger (a complete list is shown in Questions 15 - 28 in Appendix 2). The fourteen activities are scored and summed to yield a measure of analytical activity. If the activity occurred, 1 was added to the total score, if it did not, then nothing was added. The theoretical range of the variable is 0 to 14. The number of these activities reported to have occurred in the firm represents a measure of the amount of formal analytical activity. This variable is positively correlated with the amount of intensive search, especially direct contact with the company and with the amount of discussion and participation in decisions discussed in the next section. It is negatively correlated with the number of hours of CEO involvement (see Table 5.7).

Amount of Discussion and Participation in Decisions. The third process variable is similar to one suggested by Hage (1980) that he called amount of discussion. He defines that concept as the amount of time spent verbally considering the decision issue. The variable in this study, the amount of discussion and participation in subdecisions, refers to how much managers are consulted on decision issues as individuals and in group meetings. So rather than asking about the amount of time in discussions, the question deals with specific decisions related to the acquisitions (that were either made explicitly or implicitly). The informants were asked to specify if few or many meetings and discussions were held with other managers for the following issues (Questions 29 - 37 in Appendix 2):

to make direct contact with the company, to submit a proposal and enter negotiations, to make an offer, the amount of the offer, the negotiating strategy, the person to conduct negotiations, to accept an agreement-in-principal, the financing plan and to accept the final deal. Many of the decisions in this list were derived from Bing (1980, pp. 104-105). The scoring procedure is: if no meetings or discussions were held, then 0 was scored in the total; few meetings was scored 1; and many meetings was scored 2. The theoretical range of this variable is from 0 to 18.

Amount of CEO Involvement. The fourth process variable is the amount of involvement of the chief executive officer in the corporate acquisition decision process. This variable should not vary directly with amount of discussion and participation in decisions. Although the two variables both indicate how centralized control of decision making is in a firm, they reflect different components of this more global concept. High CEO involvement is associated with centralization on a centralization/decentralization continuum. Hage (1980) defines degree of delegation as the extent to which the bulk of the process occurs at lower echelons (p. 117). The researchers at the University of Bradford (1981) define centrality as the degree to which decision making is located at the summit of the organizational hierarchy. In this study participation of the CEO refers to his direct involvement in activities related to the acquisition process, rather than who was making the ultimate decision.

This variable was operationalized in three ways. First, it was determined in what activities the CEO participated. A list of six activities was presented to the informants. It included the following: conducted negotiations, made visits to offices/plants of company being investigated (see Questions 47 - 53 in Appendix 2). Summing the affirmative responses provides a numerical measure of the amount of CEO involvement. The theoretical range of this variable is 0 to 6. Second, the informant was asked how involved the CEO was in acquisition related activities (on a ten point scale where 1 means low involvement and 10 means high involvement). Finally, an estimate was made by the informant of how many hours the CEO spent on activities directly related to the specific acquisition (see Question 53 in Appendix 2). The average correlation among these three variables is .6, with a range of .48 to .82 (see Table 5.7).

<u>Duration of Activities</u>. Duration is the final decision-process content variable. It is discussed by both Hage (1980) and The Bradford Group. Duration simply refers to the length of time between pairs of events. Duration does not do anything *per se* rather it is a characteristic of what was done. Hage is concerned with the time between the first proposal and the final decision outcome. This definition corresponds to some extent with the time between when the acquisition prospect is first identified and when

the actual acquisition deal is completed (an agreement-in-principal is reached). The Bradford Group's definition of duration is the time between the original inception of a decision to the final authorization. This is a much broader concept of the duration of the decision process than that used in this study.

The duration variable was operationalized in this study as the time in months from the identification of an acquisition prospect to the final completion of the agreement-in-principal. An agreement-in-principal is "an accord between two public corporations concerning the practical feasibility of one acquiring or absorbing the other." To calculate the value of this variable, the date given for question 7 was subtracted from the date given for Question 56 (Appendix 2). Actually completing the legal details and auditing the financial records of the acquired company and receiving final approval from shareholders can require many months more and so the end of the decision process is not the completion of the financial transaction.

<u>Dependent Variables</u>

What does it mean to say that an acquisition is a failure or that an acquisition is unsatisfactory? Bing (1980) suggests that one way of measuring acquisition success or failure is to "compare an evaluation of the results with the objectives and expectations of the buyer when the business was acquired...Another approach would be a straight economic one in which the acquired company's contribution to earning per share is the measure but this yardstick often does not include all costs or all benefits from ownership...Perhaps, failure may best be defined as simply an acquisition the buyer wishes he had not made (p. 72)."

The primary dependent variable in this study is perceived acquisition effectiveness. This variable was measured using seven effectiveness dimensions. The key informant rated the acquisition for each dimension on a 10 point scale where 1 meant very dissatisfied and 10 meant very satisfied. The variable (Questions 59 - 65, Appendix 2) includes the following dimensions: financial performance, contribution to goals, labor relations, investment demand, performance of managers, price paid and future prospects. All of the assessments were made at least two years following completion of the acquisition. This measure therefore emphasized mainly short-run performance of the acquired company. Table 5.8 indicates that the dimensions are highly correlated and therefore it seems reasonable to create a single scale for use in testing the hypotheses. The theoretical range of the scale is from 7 to 70.

There are two major objective measures that might be used to indicate the effectiveness of an acquisition: measures of profitability and market value for common stock. In this study, the measures are not appropriate because of the relatively small size of the selling companies when compared to the buyers. So data for business segments were collected to calculate a second dependent

Table 5.8

Intercorrelations among Items in the Acquisition Effectiveness Scale

Scale Items	1	2	3	4	5	6	7
1. Financial	1.000						
2. Contribution to Goals	.89 (.000)*	1.000					
3. Labor Relations	.42 (.014)	.30 (.058)	1.000				
4. Investment Demand	.70 (.000)	.76 (.000)	.42 (.014)	1.000			
5. Performance of Managers	.74 (.000)	.66 (.000)	.37 (.026)	.58 (.001)	1.000		
6. Price Paid	.72 (.000)	.74 (.000)	.50 (.003)	.57 (.001)	.49 (.004)	1.000	
7. Future Prospects	.82 (.000)	.78 (.000)	.40 (.018)	.76 (.000)	.57 (.001)	.55 (.001)	1.000

*Numbers in () are significance levels for the correlation coefficients when the number of observations is 28.

variable, the pre- and post-acquisition return on assets for the segment that currently includes the acquired company, but the usefulness and reliability of these data are minimal.

Using segment data, specifically return on assets for the segment that includes the acquired company, is sometimes very inaccurate and unrepresentative of the performance of the acquired company. Certainly when the segment is very large relative to the acquired company many other factors than the performance of the acquired company account for changes in ROA from the year prior to the acquisition to 2 years following the acquisition. But when the acquired company is larger, the segment data should be more meaningful. In some small companies no segmental data is available. Also the issue of relative impact of the acquisition on company performance must be considered.

So how useful is the segment data? It is probably useful for large firms that acquired medium-sized companies and possibly useful for all of the acquisitions of medium-sized companies. But following collection and analysis of the segment data, the decision was made not to use it to test hypotheses for a subsample of 14 companies.

<u>Development of the Research Schedule</u>

The research schedule went through four preliminary versions before it was finalized. Initially the prescriptive literature, case studies and the schedules developed by Mintzberg et al., and the Bradford Group were reviewed. Based on this material the first draft of the research schedule was prepared. It was reviewed by faculty members in the School of Business at the University of Wisconsin. Based on their feedback and comments of two managers involved in making acquisition decisions the questions were revised and Version 2 was then tested. More feedback from faculty members, Harold Stieglitz at The Conference Board, and a review of Ansoff et al.'s (1971) questionnaire resulted in the design for Version 3. The third version of the questionnaire was reviewed by four people involved in merger and acquisition related activities, an acquisition broker, a vice president of an investment banking firm specializing in acquisitions, a corporate lawyer specializing in acquisitions and an investment analyst for a large insurance company. Based on their comments and those of faculty members, the fourth version was developed.

Three people, in addition to members of the faculty at the University of Wisconsin-Madison, reviewed Version 4 of the research schedule. The Director of the Survey Research Lab at the University of Wisconsin, Dr. Harry P. Sharp, critiqued the technical aspects of the questionnaire, especially question wording. And actual interviews, using Version 4 of the research questionnaire, were conducted with two managers, one a vice president in a small manufacturing company, and the other, the director of acquisitions in a large holding company. The results of the critique of Version

4 were incorporated in Version 5, the version used in the study. Based on feedback received in interviews during the study, this extensive questionnaire development effort apparently resulted in a reasonably clear and unambiguous questionnaire (See Appendix 2).

Data Analysis

Two approaches were used to check the quality of the information provided by the key informants. First, informants were asked if records were consulted. Second, some of the data provided by the key informant werea matter of public record so for that data published sources were consulted (i.e. number of acquisitions completed in a specific period). Both approaches suggest the managers attempted to provide reliable and accurate data.

For many issues related to this research project descriptive statistics provide useful and necessary information. Specifically, descriptive statistics provide an overview of current acquisition and merger practices and they can clarify which activities were relatively more important in decision processes that resulted in successful acquisitions. Means and standard deviations are reported for the four decision process variable scales and other interval scaled variables. The frequency of use of activities and sources of information about prospects are also reported for formal analytical activities, intensive search and those activities in which the CEO participated. Response frequencies are also reported for variables that had a nominal scale, e.g. yes/no or categories, such as use of objectives and type of business relationship. The code book for the data gathered in this study is in Appendix 3.

Many of the hypotheses in the study state a simple relationship between only two variables. The magnitude and direction of these relationships was tested using Pearson product-moment correlations. A data set of size 28 permits a statistical test of significance for the correlation coefficient, but to be statistically significant with a probability level of less than .10 the coefficient must be greater than +/- .25. Although some of the assumptions for using the Pearson product-moment correlation coefficient are clearly violated by variables in the study, prior research suggests that it is robust and can be used with ordinal data (Havlicek and Peterson, 1977; Labovitz, 1970).

Differences between means for decision process variables were statistically tested for the 10 most successful and the 10 least successful acquisitions, planned and unplanned acquisitions, and for types of business relationship. The very small number of companies in some categories limits the usefulness of this analysis.

Parametric tests of significance are reported in Chapter 6, because the advantage of using nonparametric statistics does not seem to justify the loss of information that occurs. Also, given the violations of assumptions for making statistical inferences, all results must be interpreted conservatively. In Chapter 6, tests of statistical significance are reported, but practical significance is also discussed.

Regression analysis (Darlington, 1968) was used to compare the prediction and decision-process models. Both models assume a weak causal ordering of variables and causal closure. The covariation in acquisition effectiveness is assumed to be either a direct result of an independent or process variable or to be a result of a mutual dependence of the variables in the models on some outside variable. A combination of these two factors may determine the level of the dependent variable. To avoid problems with multicollinearity, the objective and perceptual measures of experience and risk are used separately in analyses. Risk and experience are however significantly correlated. Forward stepwise inclusion of variables was used in the regression analyses. With this procedure order of entry of variables is determined by the respective contribution of each variable to explained variance. It should be noted that there are likely to be problems with the stability of the regression equations because of the small sample size and multicollinearity among variables.

Discussion of Methodological Limitations

Much of the data for this research study were collected using a historical methodology or what might be called retrospective reports. Participating managers provided answers to questions about events that occurred anywhere from two to four years prior to when the questions were answered.

Using key informants and retrospective reports certainly has limitations, as well as strengths. The strengths are quite obvious. One can collect information about a process that extends over time using only one contact with an informant. This method therefore, reduces the amount of time and the financial resources needed for data collection. Second, the researcher does not have to wait for the events to occur, rather it is possible to collect data about prior events. Third, the informant has had a chance to gain some perspective and overview of the process that has occurred, so that major events can be sorted out from minor events. Therefore, the informant can provide general information rather than very detailed information that would then have to be aggregated and evaluated by the researcher.

The disadvantages or limitations of this method follow almost directly from its strengths. Certainly the opportunity given the informants to aggregate information also gives informants the opportunity to bias or distort information. Bauer (1972) notes that in assessing process models "the interview would require persons to recall what they had done in the past--a task which in complicated situations such as these is cursed with the problem of retrospective bias (p. 4)." And it is known from the cognitive psychology literature (see Simon 1979; Slovic, Lichtenstein and Fischhoff,

1977) that individuals do forget and distort information. There is no reason to expect that some loss of information and distortion did not occur in this study. But, research by both Birley (1974) and Fischhoff and Beyeth (1975) indicate that facts are recalled more accurately than expectations, opinions or preferences. Also, some people are better able to recall information than others (Hyatt, Riley & Sederstrom, 1978). The research questionnaire in this study used primarily fact-oriented questions and the informants held important, responsible positions where good recall would be an asset. Both of these features of the study should have improved the accuracy of the information collected. Ideally multiple informants should have evaluated the more subjective questions, such as acquisition effectiveness and risk.

Deliberate distortion and selective recall are related problems that are more difficult to overcome. Another related problem is the tendency of people to infer missing information and to fill out and generalize incomplete memories before responding (Ericsson and Simon, 1978, p. 32). Ericsson and Simon also note that "what information can be recalled depends on what cues and probes are provided. Hence, the completeness of the information retrieved will vary with the probing procedure" (p. 26). Although these observations were based on research about individual decision making and the questions were asked a short-time following a task, the issue they raise is relevant to informants recalling information from long-term memory to provide retrospective reports of an organizational decision process. Actually, it seems reasonable to assume that the greater the elapsed time following an event, the more important are the questions asked the informant.

A second major limitation of using key informants and retrospective reports is that in a given organization, different informants may have perceived the decision process differently and had access to different information. Because of this, it is always difficult to determine which informant is most qualified to provide a specific item of information and which informant should be believed about activities and events. In this study, the Chief Executive Officer designated a key informant. A single informant was used because the two means of resolving differences between multiple informants, i.e. qualitative reconciliation and averaging, would have created additional problems. Qualitative reconciliation of differences would have required the researcher or a judge to make highly subjective judgments. Averaging responses of different informants would have reduced variance and would not necessarily have resulted in more accurate information.

This study can provide useful information for hypothesis testing, but the limitations of using informants and retrospective reports should not be ignored. In many ways using a research questionnaire, retrospective reports, and key informants in multiple organizations is analogous to multiple case study research. Gee

(1950) also notes the very close relationship between the case study method and the survey method.

Following are strategies used in this study to overcome limitations of the research method:

1. Pretested, structured, and somewhat wordy questions were used. The need to pre-test questions is widely recognized in social science research, but it is especially critical in strategic managment research. The difficulty of obtaining access to key informants causes the "opportunity costs" associated with an unusable interview or survey questionnaire to be very high.

In addition, unstructured questions increase the danger that the researcher will inadvertently interpret answers. Thus, perceptual distortion may take place when the respondent interprets an ambiguous question and a second distortion may take place when the researcher interprets an ambiguous answer.

Nevertheless, intuition suggests that policy-level informants may resent the structure imposed upon them. This resentment can effectively be overcome by using wordy questions that do not contain significantly more information, but that do impart an image of richness and contain redundancies to aid in understanding. The efficacy of this approach has been demonstrated by Cannel and Henson (1974) and others.

2. <u>The elapsed time between the events of interest and the data-collection effort was minimized.</u> Increases in the elapsed time following an event cause information to be less recallable (Ericsson and Simon, 1978; Hyatt, Riley and Sederstrom, 1978) and very probably increase the impact of cognitive biases. To get assessments of the success of the acquisitions two years seemed the minimum elapsed time. For example, in an unstructured interview early in this project, it was noted that it took a company "2 years to become aware of problems, initially they were rationalizing problems as part of the learning process or simply a management problem."

3. <u>An attempt was made to demonstrate a clear need for the research study, to stress confidentiality and to communicate enthusiasm for the study to the CEO and the informant.</u> This tactic can increase the likelihood that the informant will be motivated to be as helpful as possible. Common sense suggests that the completeness and accuracy of an informant's responses will be a function of his or her motivation. Most policy-level informants cannot be motivated by financial incentives and it is unlikely that they would be motivated by a desire to affiliate with academic researchers. Also, the heavy demands on the time of policy level informants (Mintzberg, 1973) may cause norms of good citizenship, politeness, or acquiesence to requests for information to have less influence than is the case for many other informant groups.

Using this tactic should have encouraged the informants to admit when they did not have specific information. And the informant should have been more likely to perceive benefits from the project, both personal and organizational. Also, managers in participating companies were promised a report of results from the study.

Other problems with using retrospective reports and key informants and means to overcome some of the limitations of the method for strategic management research are discussed by Power and Huber (1982).

Chapter 6

A SUMMARY OF RESEARCH RESULTS

Material in prior chapters has established a framework for investigating corporate acquisition decision processes. The purpose of this chapter is to report the results of a research study that has spanned the past 2 years. Both qualitative and quantitative information was gathered as part of this study. Qualitative information was gathered from both primary and secondary sources. Quantitative information was gathered using a mailed questionnaire. Scales used to test hypotheses were derived from information in the questionnaires.

This chapter has two major sections. First, descriptive results from the questionnaires are presented. And some anecdotal information from interviews is included to help interpret that information. Second, tests of relationships are reported for both the prediction and decision process models.

Descriptive Results

Table 6.1 summarizes the means, standard deviations and actual ranges for the variables used in this study. An analysis of the table suggests the following descriptive statements:

Looking back, managers reported that on average the risk of failure for the acquisitions was perceived as high during the investigation. But both the standard deviation and range indicate

Table 6.1

Means, Standard Deviation and Actual Ranges for Variables

	Mean	Standard Deviation	Actual Range Low	Actual Range High	Theoretical Range Low	Theoretical Range High
Perceived Risk	4.75	2.19	1	9	1	10
Ratio Sales of Seller to Buyer	.18	.62	.001	3.292	.01	3.5
Perceived Experience	7.0	.44	3	10	1	10
Number Investigated	99	183	5	999	1	999
Number Acquired	8	11.5	0	43	1	100
Sales of Buyer (in billions)	1.07B	1.56	$.003M	5.90B	$10M	10B
Employees of Buyer	17,779	27,563	950	115,705	100	150,000
Total Revenue in 1979 (in billions)	1.25B	1.81	$.046M	6.99B	$10M	10B

Table 6.1 (Continued)

Means, Standard Deviation and Actual Ranges for Variables

	Mean	Standard Deviation	Actual Range Low	Actual Range High	Theoretical Range Low	Theoretical Range High
Amount of Formal Analytical Activity	9.6	2.1	5	13	0	14
Amount of Participation in Decision Making	10.2	3.2	3	16	0	18
Amount of Intensive Search	14.9	5.1	6	26	0	39
Use of Experts	3.8	2.6	0	6	0	15
Use of Direct Contact	7.0	2.1	2	9	0	9
Use of Secondary Sources	4.1	2.7	0	10	0	15
Amount of CEO Involvement	2.9	1.8	0	6	0	6
Perceived Level of Involvement of CEO	6.26	3.5	1	10	1	10
Hours of CEO Involvement	77	106	1	400	1	500
Duration in Months	9.3	8.6	1	36	1	36
Acquisition Effectiveness	50.96	14.53	21	69	7	70
Financial Performance (%)	-4	10	-31	-20	-100	100

high variability in the perceptions of risk during the acquisition decision process.

The ratio of sales of seller to buyer indicates that most of the acquiring companies were much larger than the companies they acquired. Actually, only one buyer was smaller in sales than the company it bought.

Most managers perceived that the management team at their firm was experienced with acquisition decision making prior to the acquisition included in this study. The small standard deviation in responses indicates that most managers reported about the same level of prior experience on the scale. Both the number of companies investigated and the number actually acquired suggest that there may have been much greater variability in experience than that perceived by the managers.

Integration activities were generally perceived as effective, although there is a wide range and some variability for responses. All of the process variables except amount of formal analytical activity have high variability. On average about nine analytical activities are used to evaluate prospects. Some meetings and one-to-one discussions occur about subdecisions. The level of intensive search suggests some use of all sources, but especially direct contact. CEOs, on average, participate in about 3 of the 6 activities included in the questionnaire. The perceived level of CEO involvement and the hours of involvement are high, but the variability is also large.

Most investigations of prospects took many months. And many of the decision processed spanned more than 9 months. Finally, the acquisitions were generally perceived as more satisfactory than unsatisfactory. This makes sense because none of the buyers had divested the acquisitions at the time of the study. Divestiture would have been one of a few likely responses to an acquisition that was clearly unsuccessful.

Use of Formal Analytical Activities

All of the formal analytical activities provided in a list to the informants were used by managers in at least 8 companies as part of their acquisition decision process. Some of the activities were used by almost all companies. These frequently used analytical activities include: investigating managers of the prospect; examining dilution of earnings per share and debt/equity ratios; and determining payback period, cash flows and/or projected Return on Investment. Many of the managers that were interviewed commented on the importance of examining the financial implications of making a proposed acquisition.

Some activities that one might expect for normative reasons to be important to good decision making were not used very frequently. For example, only one third of the companies compared purchasing the prospect to other investment opportunities. And in only 12 decisions were written plans to integrate the companies prepared before a decision was made. One manager noted in an interview that his firm was only looking at one prospect so it could not be compared with other acquisition prospects. He did not consider it possible to compare the acquisition prospect with non-acquisition investment opportunities. Another manager noted that he did not want to formally plan the integration of the companies until after he knew for sure that a deal was made. Table 6.2 tabulates the frequency of use of the 14 formal analytical activities.

Not as much formal analytical activity occurred during the investigation of the acquisitions included in this study as had been expected. Many activities that have been recommended by acquisition specialists and authors in the normative literature on decision making were not frequently included in corporate acquisition decision processes. Analysis of prospects seems to heavily stress financial questions. Hypothesis D 1 was not supported.

Information Sources

The responses tabulated in Table 6.3 indicate that experts and secondary sources were rarely used to gather information on prospects. Managers seemed to rely primarily on direct contacts with managers in the selling firm for information. In interviews, some managers pointed out that it was difficult to use secondary sources to obtain information about privately held firms, especially small firms. Also, it was noted that a concern for secrecy often

Table 6.2

Formal Analytical Activities

Which of the following activities occurred prior to reaching an agreement-in-principle with CO. NAME?

	Yes	No	
15. Prepared detailed demand forecasts for CO. NAME's products/services	18*	10**	
16. Prepared a report comparing CO. NAME to other investment opportunities	8	20	
17. Evaluated CO. NAME against written acquisition objectives	19	9	
18. Completed a written checklist for evaluating acquisition candidates	17	11	
19. Investigated the managers of CO. NAME	25	3	
20. Prepared a report on compatibility of marketing, production, accounting, and information systems	19	9	
21. Had a specialist investigate tax issues	19	9	
22. Investigated worker satisfaction, employee turnover, pensions and contracts	23	5	
23. Developed written plans for utilizing top-management personnel of CO. NAME	14	14	
24. Prepared written plans to integrate the companies following a merger	12	16	
25. Examined dilution of earnings per share, and debt/equity ratios	25	1	2 no resp.
26. Determined payback period, cash flows and/or projected Return on Investment	27	1	
27. Prepared a report on CO. NAME's competitors and environmental factors affecting CO. NAME	18	10	
28. Analyzed unsettled litigation, claims and long-term contracts of CO. NAME	24	4	

*number of managers responding "yes" to this question.

**number of managers responding "no" to this question.

Table 6.3

Intensive Search - Use of Sources

How frequently were each of the following information sources used by you and other managers at your firm during the investigation of CO. NAME prior to reaching an agreement-in-principle to make the acquisition?

	Never	One Occasion	Few Occasions	Many Occasions
38. business brokers or investment bankers	16*	4	5	3
39. management consultants	21	3	1	3
40. stock brokers/analysts	26	1	1	0
41. discussions with suppliers/ customers of CO. NAME	9	1	10	8
42. industry experts, e.g. retired executives	16	3	9	0
43. computerized data bases, MERGEX, COMPUSTAT	26	0	2	0
44. newspapers/magazines	20	3	4	1
45. annual reports/10Ks/ Moody's/credit reports	13	5	8	2
46. trade association reports and analyses	13	5	8	2
47. in-house files/reports	8	3	11	6
48. discussions with managers in selling firm	0	1	9	18
49. visits to selling firm plants and offices	1	2	12	13
50. dinner and social meetings with managers in selling firm	4	0	13	11

*number of responses.

precluded using outside experts.

Hypothesis D 2 was not supported. Many fewer information sources were used and they were used much less frequently by buyers during the investigation of an acquisition prospect than was expected.

CEO Involvement

The mean level of perceived CEO involvement was on the high side of the scale, but the variability was very large. Table 6.4 summarizes the descriptive information about CEO involvement. CEOs were rarely involved in making initial contacts with prospects or in conducting negotiations. Most CEOs did hold regular meetings to evaluate information about the prospect and they personally presented the final deal to the board of directors. An analysis of the relationship between size and perceived CEO involvement and number of hours of CEO involvement shows a significant correlation (average $r = -.44$). This correlation indicates that CEO involvement is greater in medium-sized companies than in larger companies.

Hypothesis D 3 needs to be modified as a result of the findings of this study. CEOs, primarily in medium-sized organizations, are actively involved in acquisition decision process activities during the purchase of small and medium-sized companies. In large organizations, the CEO's role seems more one of ratification than decision making and investigation.

Table 6.4

CEO Involvement

51. In general, using a ten-point scale, how involved was THE CEO of your firm in acquisition activities related to CO. NAME? On the scale 1 means very little direct involvement and 10 means extensive direct involvement in acquisition activities.

1	2	3	4	5	6	7	8	9	10
Very little								Extensive involvement	

mean = 6.0 SD = 3.6

52. In which of the following acquisition related tasks did THE CEO at the time of the acquisition actively participate? Did the CEO ...

	Yes	No
52. a. Make initial contact with managers at CO. NAME	5*	23
52. b. Conduct negotiations	8	20
52. c. Hold regular meetings to evaluate information about CO. NAME	19	9
52. d. Plan and direct staff investigations	11	17
52. e. Make visits to offices/plants of CO. NAME	15	13
52. f. Present the "deal" to YOUR FIRM's Board of Directors	23	5

53. Approximately how many hours did THE CEO spend on activities directly related to the acquisition of CO. NAME?

mean = 71 hours SD = 103.5

54. During the investigation of CO. NAME, was there a separate department of staff person at YOUR FIRM specifically responsible for acquisitions and mergers?

1) Yes = 19 2) No = 8 1 no response

55. What was the title of the person in charge of the investigation and negotiations with CO. NAME?

Frequency

4* 1) Chairman of the Board
4 2) President
2 3) Executive or administrative vice president
6 4) Head of acquisitions unit
4 5) Other Vice-President
2 6) Special Staff Person
5 7) Other (please specify) ____________

*number of responses.

Amount of Participation

Table 6.5 indicates that at least a few meetings and discussions occurred about all of the subdecisions in most of the companies. The least amount of discussion and participation occurred for the decisions on the financing plan and the negotiating strategy. The most participation occurred on the decisions to submit a proposal, make an offer and the amount of the offer.

Hypothesis D 4 was supported. Acquisition decision making is a participative process with at least some meetings and one-to-one discussions occurring about prospects.

Integration Activities

No hypothesis was developed for integration activity, but Table 6.6 indicates that most of the listed activities were completed as part of the integration process for all of the acquisitions. Also, as noted, the integration activities were generally perceived as effective. In the interviews one manager noted that his firm did not want to integrate the acquired company with the primary operations so few of the activities were used.

Tests of Relationships

Two models were presented in Chapter 4. The models are alternative explanations of why acquisitions succeed or fail, but

Table 6.5

Participation in Decision Making

Did no, few, or many meetings and discussions occur about the decision ...

	None	Few	Many	
29. To make direct contact with CO. NAME	**2***	**21**	**3**	**2 no response**
30. To submit a proposal and enter negotiations	**1**	**13**	**14**	
31. To make an offer	**1**	**15**	**12**	
32. The amount of the offer	**1**	**17**	**10**	
33. The negotiating strategy	**2**	**17**	**9**	
34. The person to conduct negotiations	**9**	**18**	**1**	
35. To accept an agreement-in-principle	**2**	**19**	**7**	
36. The financing plan	**9**	**15**	**4**	
37. To accept the final deal	**3**	**19**	**6**	

***number of responses.**

Table 6.6

Integration Activities

57. Which of the following integration activities occurred <u>after</u> CO. NAME was acquired?

	Yes	No	
57. a. Installed a new financial control system	19*	8	1 no response
57. b. Established specific objectives for managers of the acquired firm	27	1	
57. c. Established incentive and profit-sharing programs	23	4	1 no response
57. d. Developed stable reporting relationship to one manager at our company headquarters	25	3	
57. e. Had meetings between our top-managers and managers at the acquired firm to resolve policy differences	23	5	
57. f. Provided the labor force at CO. NAME with detailed information about the acquisition and OUR FIRM	22	6	

58. On a scale from 1 to 10, where 1 means very ineffective and 10 means very effective, how effective were the activities to integrate CO. NAME with YOUR FIRM?

1 2 3 4 5 6 7 8 9 10
ineffective effective

mean = 7.2 SD = 1.9

*number of responses.

the models are not necessarily incompatible. The major difference between the models is that process variables are treated explicitly in the decision-process model and considered implicitly in the prediction model.

Prediction Model Hypotheses

In the prediction model, experience, strategic risk and source initiating the decision process are hypothesized as predictors of management satisfaction with and the effectiveness of the acquisition. A variable called perceived acquisition effectiveness was used as the dependent variable in the test of hypotheses. Chapter 5 discusses this variable in more detail, but briefly it is the sum of a manager's ratings of the acquisition on seven effectiveness dimensions. The variable includes the following dimensions: financial performance, contribution to goals, labor relations, investment demand, performance of managers, price paid and future prospects. All of the assessments were made at least two years following completion of the acquisition. This variable therefore, emphasizes mainly short-run performance of the acquired company.

An examination of Table 6.7 shows that two of the three experience variables are significantly correlated with perceived acquisition effectiveness. The number of firms acquired from 1975 to 1979 and perceived experience are both positively correlated with perceived effectiveness. A significant effect of strategic risk on

Table 6.7

Examination of Relations Between
Prediction Variables and Acquisition Effectiveness

	Number of firms investigated 1975-1979	Number of firms acquired 1975-1979	Perceived experience making acquisitions	Perceived risk of the acquisition	1979 Sales of seller divided by 1979 sales of Buyer
	Correlations with Experience and Risk Determinants				
Perceived Acquisition Effectiveness	.14	.38**	.28*	-.24	.11

	Means on Business Relationship Categories			Significant T-Test Comparisons		
	1 Cust/Supp (n=5)	2 Similar (n=13)	3 New (n=6)	1-2	2-3	1-3
Perceived Acquisition Effectiveness	64.6	50.2	47.3	***a		**a

	Means on Initiation Categories				Significant T-Test Comparisons					
	1 In-house Search (n=9)	2 Aided by Finder (n=6)	3 Approached by Co. (n=7)	4 Other (n=6)	1-2	1-3	1-4	2-3	2-4	3-4
Perceived Acquisition Effectiveness	50.4	49.3	52.3	51.8						

* = p less than .10   ** = p less than .05   *** = p less than .01

a = a separate variance estimate of T was used

acquisition effectiveness was found using the business relationship variables and the relationship approached significance for the perceived risk variable. Acquisitions of customers and suppliers were evaluated as much more effective than other types of acquisitions. The source initiating the process or identifying the prospect was not related to acquisition effectiveness. Appendix 4 has scattergrams for the relationships of the independent variables with perceived effectiveness.

Hypotheses PM 1 and PM 2 were supported by the results of this study. The results support a positive relationship between experience of managers in the buying firm and the strategic risk associated with a specific acquisition, and the level of management satisfaction with and perceived effectiveness of an acquisition. Both experience and low strategic risk predict successful acquisitions.

The scattergrams (See Appendix 4) indicate that firms that had made more than six acquisitions had generally effective acquisitions. They also indicate that if the top one-third of the actual range of the acquisition effectiveness variable is used to indicate highly effective acquistions, then the base rate probabilities for highly effective acquisitions are: 1/3 for unrelated acquisitions; 6/13 for acquisitions of companies with similar customers or technologies; and 1 for acquisitions of customers/suppliers or competitors.

Hypothesis PM 3 was not supported. There did not appear to be a relationship between planned initiation and search for an acquisition prospect and the level of management satisfaction with and perceived effectiveness of the acquisition.

Decision-Process Model Hypotheses

Prior descriptive research on corporate acquisition decision processes provided a starting point for this project. Issues that had not been previously studied were examined. Issues that had been investigated by two or more researchers who found differing results were again examined. And some counter-intuitive findings of single research studies were also studied. Major research studies related to corporate acquisition search and decision processes were summarized in Chapter 3.

A number of decision process variables were used in this study. The section on descriptive results in this chapter provided some information about the content of the acquisition decision process, but it is probably helpful to briefly summarize the process variables. Intensive search refers to the amount of examination and investigation of the acquisition prospect by the acquiring firm and specifically the sources used for information. A list of information sources was provided the informant who indicated if each source was used during the investigation of the prospect (see Table 6.3). Three subscales were created: use of experts; use of secondary sources; and use of direct contact.

Amount of formal analytical activity was measured by presenting the informants with a list of activities judged as analytical. The informant was asked if each activity did or did not occur during the investigation of the company eventually acquired. Some of the activities include: market research study, made sales and earnings forecasts, and prepared written plans to integrate company following the merger.

Amount of discussion and participation in decisions was measured for specific subdecisions related to the acquisition decision process.

Amount of CEO involvement was measured in three ways. First, six activities were included in a checklist, e.g., conducted negotiations, made visits to offices/plants of company being investigated. Second, the informant was asked how involved the CEO was in acquisition related activities. Finally, an estimate was made by the informant of how many hours the CEO spent on activities directly related to the acquisition of interest in the study.

Duration of Activities was operationalized in this study as the time in months from the identification of an acquisition prospect to the final completion of the acquisition agreement-in-principle.

Effects of Experience. Do managers who are experienced making acquisitions design and use substantially different decision processes than inexperienced managers? Companies that made the most acquisitions prior to the one included in the study had different decision process characteristics. For example as indicated in Table 6.8, more experienced firms had lower levels of participation in the decision process and made less use of information sources to obtain information about the prospect. Also, the managers in firms that had made the most acquisitions perceived that the acquisition included in the study had been more effective.

Hypotheses DPM 1.1 and DPM 1.5 received no support in this study. The other three hypotheses, DPM 1.2, DPM 1.3 and DPM 1.4, were supported. More experience resulted in: 1) a lower amount of intensive search about the acquisition prospect; 2) a lower amount of participation by the CEO in acquisition decision activities; and 3) a lower amount of discussion and participation in decision making during the investigation of the acquisition prospect.

Effects of Strategic Risk. Do managers use more complex and extensive decision processes when an unrelated business is acquired? Managers making unrelated acquisitions appear to use more complex and extensive decision processes (See Table 6.9). When new and unrelated businesses are acquired companies engage in significantly more intensive information search and are more likely to use experts to obtain information about prospects. Also there are higher levels of participation when new businesses are acquired and the mean amount of CEO hours is much greater than for other types of acquisitions. But, as Table 6.9 indicates, the perceived effectiveness of the acquisition of the new business is

Table 6.8

Relationships between Experience and Risk Determinants and Process Variables

Process Variables	Experience and Risk Determinants				
	Number of firms investigated 1975-1979	Number of firms acquired 1975-1979	Perceived experience making acquisitions	Perceived risk of the acquisition	1979 Sales of seller divided by 1979 sales of Buyer
Amount of Formal Analytical Activity	.12	-.22	-.01	-.19	-.38**
Amount of Participation in Decision Making	-.05	-.46***	-.49***	.26*	-.11
Amount of Intensive Search	-.20	-.35**	-.18	.03	-.25*
Use of Outside Experts	-.16	-.38**	-.38**	-.08	.10
Direct Contact with the Company	.05	-.17	.15	.18	-.37**
Uses of Secondary Sources of Information	-.25*	-.17	-.10	-.001	-.29*
Amount of CEO Involvement in Activities	-.30*	-.26*	-.07	.05	.40**
Duration	-.12	.05	.23	.17	-.22
Perceived Acquisition Effectiveness	.14	.38**	.28*	-.24	.11

* = p less than .10 ** = p less than .05 *** = p less than .01

Table 6.9

Examination of Relationships between Business Relation Categories and Process Variables:

Variables	Means on Business Relationship Categories			Significant T-Test Comparison		
	1 Cust/ Supp (n=5)	2 Similar (n=13)	3 New (n=6)	1-2	2-3	1-3
Amount of Formal Analytical Activity	9.4	9.8	10.0			
Amount of Intensive Search	13.2	14.2	19.5		**	**a
Use of Outside Experts	2.2	3.4	6.2		**	*a
Use of Secondary Sources	3.6	3.8	5.8			
Direct Contact with the Company	7.4	7.0	7.5			
Amount of CEO Involvement with Activities	3.6	2.8	3.2			
Perceived CEO Involvement	6.8	6.0	6.0			
Number of CEO Hours	59.9	65.0	160.4			
Amount of Participation in Decision Making	8.2	10.6	12.0	*	*	
Duration	8.6	10.5	8.8			
Perceived Acquisition Effectiveness	64.6	50.2	47.3	***a		**a

* = p less than .10 ** = p less than .05 *** = p less than .01
a = a separate variance estimate of T was used

significantly less than when customers or suppliers are acquired. Table 6.8 presents results for perceived risk and the ratio of sales of the seller and buyer. The amount of formal analytical activity was higher when the sales ratio was low, indicating that lower risk acquisitions were examined with more formal analytical activity than higher risk acquisitions.

Hypothesis DPM 2.1 was disconfirmed. Higher strategic risk of an acquisition for the buyer, if there is a relationships, leads to lower, not greater, amounts of formal analytical activities during the investigation of the acquisition prospect.

The results for hypothesis DPM 2.2 were not consistent. The hypothesis was confirmed if business relation is used as the risk variable and disconfirmed when sales ratio is considered the best measure of risk. Higher strategic risk may result in a greater amount of intensive search for information about a specific acquisition prospect.

Hypothesis DPM 2.3 was confirmed for the sales ratio variable, but not for the other two risk variables. It was found that the larger the acquisition prospect in terms of the buyer's sales, the greater the amount of participation of the CEO in acquisition decision activities.

The results support hypothesis DPM 2.4. Higher strategic risk results in a greater amount of discussion and group participation in decisions during the investigation of an acquisition prospect.

Finally, hypothesis DPM 2.5 was not confirmed. Higher strategic risk did not result in a longer acquisition decision process.

Effects of Initiating Source. Does the decision process differ when the organization initiates and plans a search for acquisition prospects as compared to the process that follows an unplanned initiation by the seller or a broker. Acquisitions that are initiated by unusual means encompased in the "other" category in Table 6.10 seem to lead to greater search for information about the prospect. Also, when the acquisition decision process is initiated by an in-house search as compared to when it is initiated by an approach from the selling company, the number of hours of CEO involvement is significantly greater. Finally, the duration of the decision process is much longer for in-house search and approach by the seller than for unusual and non-standard means of initiating the decision process.

Hypotheses DPM 3.1 and DPM 3.4 were not confirmed. Planned search for prospects did not result in a greater amount of formal analytical activity or a greater amount of discussion and participation in making acquisition subdecisions.

Hypothesis DPM 3.2 was disconfirmed. Prospects identified by planned search were not subject to greater amounts of intensive search, rather the amount of search was lower than for prospects identified by other means.

Table 6.10

Examination of Relationships between Type of Initiation and Process Variables

Variables	1 In-house Search (n=9)	2 Aided by Finder (n=6)	3 Approached by Co. (n=7)	4 Other (n=6)	1-2	1-3	1-4	2-3	2-4	3-4
	Means on Initiation Categories				Significant T-Test Comparison					
Amount of Formal Analytical Activity	9.0	10.5	9.1	10.0						
Amount of Intensive Search	12.6	15.0	14.3	19.2			*a			
Use of Outside Experts	2.6	4.2	3.0	6.2			**	*		**a
Use of Secondary Sources	3.2	3.5	4.0	6.2			*a			
Direct Contact with Company	6.8	7.3	7.3	6.8						
Amount of CEO Involvement	3.6	3.0	2.3	2.5						

* = p less than .10 ** = p less than .05 *** = p less than .01
a = a separate variance estimate of T was used

Table 6.10 (continued)

Examination of Relationships between Type of Initiation and Process Variables

Variables	Means on Initiation Categories: 1 In-house Search (n=9)	2 Aided by Finder (n=6)	3 Approached by Co. (n=7)	4 Other (n=6)	Significant T-Test Comparison: 1-2	1-3	1-4	2-3	2-4	3-4
Perceived CEO Involvement	7.8	6.2	5.3	5.0						
Number of CEO Hours	101.4	82.2	21.0	92.2	**a					
Amount of Participation in Decision Making	10.2	11.2	9.9	9.7						
Duration	11.1	11.3	8.7	4.4			*a		*a	
Perceived Acquisition Effectiveness	50.4	49.3	52.3	51.8						

* = p less than .10 ** = p less than .05 *** = p less than .01
a = a separate variance estimate of T was used

Hypothesis DPM 3.3 was also disconfirmed. When an acquisition prospect is identified by a planned search rather than by another source, there is greater, rather than lower, participation by the CEO in acquisition decision activities.

Finally, hypothesis DPM 3.5 was partially confirmed. When an acquisition prospect is identified by a planned search rather than by another source, the duration of the acquisition decision process is longer.

Process Effects on Acquisition Effectiveness. Do some decision process activities predict short-run success for an acquisition? Are some activities unrelated to success or related to failure? An analysis of Table 6.11 suggests that in the short-run an acquisition is more likely to be perceived as effective:

a) In firms that have only some meetings and discussions during the investigation rather than many meetings.

b) In companies that make only some use of outside experts and direct contacts with the acquisition prospect rather than extensive use.

Tables 6.12, 6.13, and 6.15 indicate that formal analytical activities, use of integration activities and use of information sources differ little between the 10 most effective and the 10 least effective acquisitions.

Table 6.11

Relationships Between Decision Process Variables and Perceived Acquisition Effectiveness

Process Variables	Correlation with Perceived Acquisition Effectiveness	Significance Level
Amount of Formal Analytical Activity	-.10	
Amount of Participation in Decision Making	-.68	***
Amount of Intensive Search	-.37	**
Use of Outside Experts	-.35	**
Amount of Direct Contact with the Prospect	-.25	*
Uses of Secondary Sources of Information	-.18	
Amount of CEO Involvement in Activities	-.08	
Duration	.22	

* = p less than .10 ** = p less than .05
*** = p less than .01

Table 6.12

Comparison of Formal Analytical Activity During the Investigation for the Most and Least Effective Acquisitions

	Percentage of Companies Responding Activity Completed	
	Ten most Effective Acquisitions	Ten least Effective Acquisitions
Prepared detailed demand forecasts for CO. NAME's products/services	80%	60%
Prepared a report comparing CO. NAME to other investment opportunities	30%	30%
Evaluated CO. NAME against written acquisition objectives	70%	60%
Completed a written checklist for evaluating acquisition candidates	50%	80%
Investigated the managers of CO. NAME	100%	90%
Prepared a report on compatability of marketing, production, accounting, and information systems	70%	90%
Had a specialist investigate tax issues	60%	60%

Table 6.12 (continued)

Comparison of Formal Analytical Activity During the Investigation for the Most and Least Effective Acquisitions

	Percentage of Companies Responding Activity Completed	
	Ten most Effective Acquisitions	Ten least Effective Acquisitions
Investigated worker satisfaction, employee turnover, pensions, and contracts	90%	80%
Developed written plans for utilizing top-management personnel of CO. NAME	50%	30%
Prepared written plans to integrate the companies following a merger	50%	30%
Examined dilution of earnings per share, and debt/equity ratios	80%	100%
Determined payback period cash flows and/or projected Return on Investment	100%	90%
Prepared a report on CO. NAME's competitors and environmental factors affecting CO. NAME	70%	60%
Analyzed unsettled litigation, claims and long-term contracts on CO. NAME	70%	90%

None of these frequencies are signicantly different

Table 6.13

Comparison of the Use of Information Sources
for the 10 Most and 10 Least Effective Acquisitions

Information Source	Mean Usage 10 Most Effective Acquisitions	Mean Usage 10 Least Effective Acquisitions	Significant T-Test Comparison
business brokers or investment bankers	.8 (1.10)	1 (1.20)	
management consultants	.5 (1.10)	.8 (1.20)	
stock brokers/analysts	0 (0)	.2 (.60)	
discussions with suppliers/customers of CO. NAME	1.1 (1.30)	2.0 (1.20)	
industry experts, e.g. retired executives	.2 (.60)	1.3 (.95)	***
computerized data bases, MERGEX, COMPUSTAT	0 (0)	0 (0)	
newspapers/magazines	.4 (.80)	.6 (1.10)	

Table 6.13 (continued)

Comparison of the Use of Information Sources
for the 10 Most and 10 Least Effective Acquisitions

Information Source	Mean Usage 10 Most Effective Acquisitions	Mean Usage 10 Least Effective Acquisitions	Significant T-Test Comparison
annual reports/10Ks/ Moody's/credit reports	1.0 (1.20)	1.1 (1.10)	
trade association reports and analyses	.7 (.95)	1.3 (1.20)	
in-house files/reports	1.8 (.80)	1.4 (1.20)	
discussions with managers in selling firm	2.6 (.50)	2.7 (.50)	
visits to selling firm plants and offices	2.0 (.90)	2.7 (.50)	**
dinner and social meeting with managers	2.1 (1.20)	2.4 (.50)	

Numbers in parentheses are standard deviations
All of the sources were evaluated using the following scale:
0 = never used 1 = used on one occasion
2 = used on few occasions 3 = used on many occasions
* = p less than .10 ** = p less than .05 *** = p less than .01

Table 6.14

Comparison of CEO Involvement in Activities During the Investigation for the 10 Most and 10 Least Effective Acquisitions

Percentage of Companies Responding CEO Participated

CEO Involvement Activity	10 Most Effective Acquisitions	10 Least Effective Acquisitions	Significant T-Test Comparison
Make initial contact with managers at CO. NAME	20%	10%	
Conduct negotiations	40%	20%	
Hold regular meetings to to evaluate information about CO. NAME	50%	100%	***
Plan and direct staff investigations	40%	40%	
Make visits to offices/plants of CO. NAME	30%	80%	**
Present the "deal" to YOUR FIRM's Board of Directors	90%	70%	

* = p less than .10 ** = p less than .05 *** = p less than .01

Table 6.15

Comparison of Integration Activities for the 10 Most and 10 Least Effective Acquisitions

	Percentage of Companies Responding Activity Completed	
Integration Activity	10 Most Effective Acquisitions	10 Least Effective Acquisitions
Installed a new financial control system	70%	70%
Established specific objectives for managers of the acquired firm	90%	100%
Established incentive and profit-sharing programs	90%	80%
Developed stable reporting relationship to one manager at our company headquarters	80%	90%
Had meetings between our top-managers and managers at the acquired firm to resolve policy differences	90%	80%
Provided the labor force at CO. NAME with detailed information about the acquisition and OUR FIRM	80%	70%

None of these frequencies are significantly different

Does the amount of CEO involvement predict success? The mean number of hours of CEO involvement was 77 (SD = 105). Overall the managers in the study indicated the perceived level of involvement of CEO was 6.3 (SD = 3.5) on a scale where 1 = very low involvement and 10 = very high involvement. Of the 6 activities CEO's are sometimes involved in, the mean involvement was 3 activities (SD = 1.8). Almost all CEO's were involved in presenting the "deals" to their Board of Directors.

Table 6.14 suggests that the amount of CEO involvement in activities is not a good predictor of success. Also the correlation coefficients with perceived acquisition effectiveness are not significant for any of the 3 CEO involvement variables.

The analyses of the risk determinants suggest that CEOs are most involved when the ratio of the sales of the selling firm to the buying firm is large. This indicates that higher risk and larger acquisitions are the ones in which the CEO is most involved (See Table 6.8 and the previous section on strategic risk effects).

Does participation in the decision process by the management team predict short-run success? When managers have participated in decision making, is implementation of the decision evaluated as more successful? Greater participation in acquisition decisions does not lead to greater acquisition effectiveness. Quite the opposite was found. Lower levels of participation indicate higher effectiveness (See Table 6.11). Also the amount of participation in decision making is negatively correlated with the perceived effectiveness of the integration activities ($R = -.4$; p level less than .05).

None of the hypotheses about the effects of process variables on effectiveness were confirmed.

The relation opposite to that predicted was found for hypothesis P 2. A greater amount of intensive search about an acquisition prospect was related to less, not more, satisfactory evaluations of acquisition effectiveness.

The results for hypothesis P 4 are similary contradictory to what was expected. A greater amount of discussion and group decision making during the investigation of the acquisition prospect was related to less, not more, satisfactory evaluations of acquisition effectiveness.

Comparison of Models

In this study there was an implicit hypothesis that including process characteristics in the prediction model could improve predictions and understanding of the mechanism influencing acquisition outcomes. Forward stepwise regression models were analyzed to compare the prediction and decision-process models. Table 6.16 reports the regression results for the prediction model. The objective measures of risk and experience accounted for more of the variance in perceived acquisition success than did the perceptual measures. In the regression equation with the objective measures, Type of Business Relationship accounted for 18 percent of

Table 6.16

Regression Analysis for the Prediction Model

1. Multiple Regression results with Perceived Acquisition Effectiveness as the dependent variable (Objective Measures of independent variables)

	Multiple R	R^2	R^2 Change	B	F
Type of Business Relationship	.42	.18	.18	-.81	5.05
Number of Acquisitions 1975-79	.53	.28	.10	.41	3.02
Constant				.66	

2. Multiple Regression results with Perceived Acquisition Effectiveness as the dependent variable (Perceptual Measures of independent variables)

	Multiple R	R^2	R^2 Change	B	F
Perceived Experience	.33	.11	.11	.19	2.9
Perceived Risk	.45	.20	.09	-.19	2.6
Constant				.49	

*n equals 24

the variance and adding number of acquisitions accounted for an additional 10 percent of the variance in acquisition effectiveness (See Table 6.16).

The decision-process model was tested with four regression equations. Using the objective measures and four process variables, stepwise regression was used to determine which variable initially entered the equation and how much variance was accounted for by each variable. Amount of participation in decision making and amount of intensive search were significant in the regression equations. Table 6.17 summarizes the regression analyses for the decision-process model.

Table 6.17

Regression Analyses for the Decision-Process Model

1. With Formal Analytical Activity*	Multiple R	R^2	R^2 Change	B	F
Type of Business Relationship	.43	.18	.18	-.81	4.7
Number of Acquisitions 1975-1979	.53	.28	.10	.40	2.9
Amount of Formal Analytical Activity	.53	.28	.0	-.27	.04
Constant				.69	
2. With Participation in Decision Making*					
Amount of Participation in Decision Making	.74	.55	.55	-.28	13.9
Type of Business Relationship	.75	.56	.01	-.30	.93
Number of Acquisitions 1975-1979	.76	.58	.02	.17	.75
Constant				.87	
3. With Intensive Search*					
Amount of Intensive Search	.45	.20	.20	-.64	1.3
Type of Business Relationship	.52	.27	.07	-.60	2.3
Number of Acquisitions 1975-1979	.57	.33	.06	.32	1.8
Constant				.72	
4. With CEO Involvement*					
Type of Business Relationship	.43	.18	.18	-.83	4.9
Number of Acquisitions 1975-1979	.53	.28	.10	.38	2.5
Amount of CEO Involvement	.54	.29	.01	-.53	.14
Constant				.68	

*Perceived Acquisition Effectiveness is the dependent variable.

Chapter 7

CONCLUSIONS AND IMPLICATIONS ABOUT ORGANIZATIONAL DECISION PROCESSES

This research project has identified some factors that seem to predict the success of an acquisition. It suggests that managers and acquisition specialists can increase the success rate of acquisition programs. The models tested in this study may also help organization theorists develop and refine theories of organizational decision making.

This chapter addresses a number of major issues. First, tentative answers are provided for the research questions posed in Chapter 1. Second, alternative explanations for some of the findings are suggested. Third, the accuracy of the data collected in the study is evaluated. Fourth, the implications of the research results for managing corporate acquisition decision processes are presented. Fifth, the implications for improving and expanding organizational decision-making theories are considered. Finally, the needs for future research and the limitations of this research project are discussed.

Answers to Research Questions

This research project has primarily gathered information about small and medium-sized acquisitions. Because of this limitation, it is important not to over generalize the following conclusions and implications.

What are the answers to the major research questions posed in Chapter 1? First, do some decision process activities predict short-run success for an acquisition? Yes, participation and intensive search do, but not in the predicted direction. The amount of formal analytical activity and the amount of CEO involvement are not related to acquisition success.

Second, how involved is the CEO? The CEO is not as involved in making small and medium-sized acquisitions as had been expected from the research discussed in Chapter 3. The amount of CEO involvement seems to depend on the size of the buyer, with CEOs in small companies more involved in making small and medium-sized acquisitions than CEOs in large companies. Since CEO involvement is related to the ratio of sales of the seller divided by sales of the buyer, this indicates that CEO involvement increases for proportionately larger and probably more significant acquisitions.

Third, what is the effect of participation in decision making? Greater participation in the decision process by the management team is negatively related to short-run success. Increased participation in decision making also did not increase the perceived effectiveness of implementation activities.

Fourth, do managers use more complex and extensive decision processes when an unrelated business is acquired? The results indicate this occurs, but the process changes do not increase the success of unrelated acquisitions.

Fifth, what is the effect of experience? The number of prior acquisitions made by a firm is a good predictor of the success of an acquisition. Firms that have made more acquisitions use different decision processes, including lower levels of participation in subdecisions and less use of information sources.

Finally, does it matter how an acquisition prospect is found? How a prospect is identified does not seem to change the decision process, except when an unusual source identifies a prospect and then more CEO involvement and intensive search occurs. The source of prospects does not predict acquisition effectiveness.

As noted in Chapter 1, some decision processes may be both more effective and more efficient than others. This study found that participation in decision making and intensive search for information did not effectively reduce the risks associated with unrelated acquisitions or compensate for an inexperienced management team. The possible ineffectiveness of these activities in some companies should be a matter of concern, but it does not suggest that participation in acquisition decisions and intensive search are either unneccessary or without significant benefits in acquisition decision processes. Rather, one must ask how these activities can be improved in organizations. One must also ask what other activities can be included in the decision process to help managers who have completed few acquisitions or who are considering especially high risk acquisitions to evaluate and gather information more efficiently and effectively.

Alternative Explanations of Findings

This section discusses hypotheses that were not supported in this study. Both relationships that were not significant and significant relationships that were opposite of those predicted are discussed.

As noted in the prior section, the number of meetings and one-to-one discussions about an acquisition prospect was negatively related to the perceived effectiveness of the acquisition. This result may seem counter intuitive. However, it may be noted that only the quantity of meetings and discussions and not the quality of meetings, the length of meetings or who participated was measured. These measurement issues are discussed further in the next section, but they are mentioned here because they suggest substantive explanations for the findings. Greater participation seemed to be a response to a high risk decision and lack of experience of the management in making acquisitions. As noted above this strategy was not successful. It may not have been successful because the participants in the meetings lacked important knowledge. Or a group mind-set and rationalizing may have developed in the management team. Another related explanation is that because of inexperience the group members had vague or inappropriate decision criteria.

Interpreting causality in this relationship is also a problem. One may conclude that having more meetings caused the lower level of perceived effectiveness, but despite the explanations just mentioned that causal explanation seems implausible to people who have examined the results of this study. An alternative causal explanation is that participation in decision making only covaries with perceived effectiveness, but does not cause changes in levels of effectiveness. Variables that may cause both the level of participation and perceived effectiveness to change include the experience of the management team and the risk associated with the acquisition. This hypothesis is tenable, but it is not supported by the regression results reported in chapter 6. Even so, an unmeasured predictor variable may not be accounted for in the model.

Another explanation of the relationship between participation and perceived effectiveness is that it is an artifact of the measures and represents variance due to the measures rather than an actual relationship. This possibility cannot be completely eliminated and measurement problems are discussed more extensively in the next section.

Planned search did not result in more successful acquisitions. This result is not consistent with prior research by Ansoff et al. (1971) and Birley (1974;1976). A number of reasons may account for this. First, the measures used in this study were different.

Planning was a broad concept in prior studies, but was limited to planned initiation in this study. In twenty-two of the cases managers reported having a formal strategy and plan for finding suitable acquisition prospects. In twenty-one case managers reported having formal acquisition objectives. Thus, most of the companies could be classified as planners. Second, the characteristics of the decision process may have a greater effect on success than the source initiating the process, such as formal planning. Finally, planned search may not be oriented toward reducing the risks of an acquisition. Other reasons and motives may have guided the search and resulted in identifying prospects that met needs not directly translatable into the success dimensions used in this study.

Formal analytical activity was less extensive than had been expected and none of the three independent variables predicted the amount of formal analytical activities. A number of reasons may explain why hypotheses D 1, DPM 1.1, DPM 2.1, and DPM 3.1 were not supported. First, managers may have misreported the amount and types of activities. Second, the bias toward rationality and analysis in our culture would certainly encourage managers to overstate the amount of analytical activity. And, finally the general nature of some of the activity statements could have resulted in some misinterpretation and under or over reporting of activities (see the next section).

Despite these problems, some correlation coefficients approached significance, but the relationship was in the opposite direction to that predicted. Greater experience and risk were associated with less, not more, formal analytical activity. These relationships make some sense if one suspects that some of the analytical activities of the inexperienced management teams were unnecessary and motivated more by insecurity than actual need. An explanation for the risk relationship is that inexperienced managers were making the high risk acquisitions. It is plausible that experienced managers knew what activities were necessary for evaluating prospects. But, a comparison of the activities used for those acquisitions that were most and least successful suggests no difference in activities.

Formal analytical activity and CEO involvement were not predictors of successful acquisitions. This may result from a number of factors. First, size of the acquiring company affects the level of CEO involvement. Size may also moderate the use of formal analytical activities. The small sample size limits the possibilities of testing moderators like size. Second, since most firms used approximately the same amount of formal analytical activity, the quality of the activities may be much more important than what is done or how many activities are included in the process.

Duration of the decision process was not affected by the levels of the three independent variables. This may be due to the effects of other variables not included in the study, e.g., unexpected delays and problems finding information. A scattergram of the independent variables with the duration variable suggests that some observations were very different from the overall pattern. If these observations are excluded, then the process is much shorter in duration when a seller approaches a buyer and for unrelated acquisitions. It had been hypothesized that for unrelated acquisitions the process would be of longer duration than for other types of acquisitions. Some interaction between risk and source initiating the process may cause this unexpected finding. For example, pressure from the seller may shorten the process when the seller has initiated it and in that case the seller may be more willing to provide information and that too may shorten the process.

Data Accuracy

At the end of Chapter 5 the potential limitations of using key informants and retrospective reports as a means of gathering data were discussed. The issue at this point is the reliability and accuracy of the data collected. In other words, the findings of this study should be evaluated in the context of both what was found and the accuracy of the information. A number of possible sources of data inaccuracy, that may result in random and/or systematic error, are discussed and evaluated in this section.

First, did the informants have the knowledge to provide accurate information? All of the informants reported that they had been highly involved in the investigation of the prospect about which they were providing information. Also, the CEOs of the organizations (when the CEO was not the informant) designated the informant as the most knowledgeable person to ask about the acquisition. In those cases where the informants did not have information or could not remember certain facts, many of them used secondary sources to obtain the information. For these reasons it seems reasonable to conclude that the informants had knowledge of the acquisition and could thus provide accurate information.

Second, were the informants motivated to provide accurate information? Completing the questionnaire was an officially sanctioned activity and that should have helped motivate subordinates delegated the task. Also, the CEOs who participated chose to provide information. All of the participants were assured confidentiality which may have reassured some people and motivated them to provide accurate information. But, lower-level managers responsible for acquisitions that turned out poorly may have been motivated to protect themselves. The informants knew that they would receive the results of the study prior to publication. Thus, they should have realized that intentionally providing inaccurate information meant that they were wasting their time and that they would not receive benefits from the study. It seems unlikely that any of the informants would have wanted to intentionally sabotage the results by providing misleading information. None of the questionnaires seemed hastily completed and the responses seemed plausible. Two additional facts suggest the informants were highly motivated to provide accurate information: most informants returned the questionnaires promptly and many of them consulted secondary sources for information. It seems reasonable to conclude that motivational factors did not cause data inaccuracy.

Third, did cognitive limitations cause data inaccuracy? Some cognitive limitations such as hindsight bias, recalling what should have been rather than what was, and forgetting, certainly may have caused data inaccuracy. But, most of that error should have been randomly distributed rather than systematic. Since all of the informants were recalling events approximately equidistant in the past, that should have controlled some systematic error. Questions of fact were used in many measures and, based upon Birley's (1976) results, that information should have been recalled more accurately than motives or opinions. Finally, highly detailed information was not requested and that should have made recall easier for the informants. Errors from cognitive limitations may have occurred, but these errors should have reduced the chances of finding relationships rather than resulting in incorrect findings.

Finally, did inaccuracies result from the instrumentation used to gather information? The questionnaire was pre-tested and revised four times prior to use, but because a new questionnaire was developed this issue must be a concern. First, some of the response scales may have been interpreted differently by some informants. For example, the responses to the participation scale - "none", "some" and "many" - can be interpreted in a number of ways, e.g., is five meetings "some" or "many"? These scales made it easier for managers to respond, but the responses represent their perceptions and they may not have all had the same referent. The tendency of managers may have been to answer "some" or a "few" as the socially desirable response. However, one can also argue that because of the normative bias toward participation in decisions and high information search, that managers in companies where an acquisition turned out poorly may have been led to respond that many meetings and discussions took place because that seemed more socially desirable.

Using structured questions with predefined responses may also have resulted in errors of omission and commission. Activities may have been left out of lists and including an activity on a list may have encouraged some informants to report that it occurred when in fact it had not. The responses to questions may also have been misunderstood or misinterpreted, although the phone interviews suggested that informants were having few problems understanding and interpreting the questionnaire.

It is possible that only random rather than systematic errors were generated by the instrumentation. But, statistically assessing the reliability and validity of the measures will be difficult given the type of scaling used and the complexity of the constructs. A qualitative assessment, as noted in the prior section, suggests that the participation in decision making variable includes only part of the domain of that construct. Also, that measure is somewhat subject to interpretation and it is not specific about the length of meetings and discussions, the participants, or the actual number. More research and further measurement development will certainly be needed for the process variables if the meaning and accuracy of the data are to be assured.

Implications for Managing Corporate Acquisition Decision Processes

The following recommendations may improve corporate acquisition decision making:

1) Comparing number of acquisitions and perceived experience indicated that managers tended to overestimate the perceived experience of the management team. If a company has made fewer than six acquisitions, managers should question the experience of their management team in finding, investigating and negotiating with acquisition prospects.

2) Experienced acquisition specialists can probably improve the quality of acquisition decision processes and may reduce the

learning time of the management group. Direct management of programs by experts may be beneficial if they know the business of the acquiring company. Indirectly the expert can affect the success of the program by helping to determine information needs and by helping develop acquisition criteria and decision rules.

3) Inexperienced management teams are likely to attain greater success if they confine their acquisitions to related businesses, especially customers, suppliers and competitors. All managers must exercise caution when making unrelated acquisitions. The expected returns from an unrelated acquisition must be adjusted to reflect the greater risk. This study suggests that as many as 2 out of 3 completely unrelated acquisitions will not be totally satisfactory in the short-run, given current behaviors.

4) Participation and discussion about acquisition-related decisions does not guarantee that better decisions will be made. The quality of the decision is probably more a function of the expertise of the people consulted than of the amount of discussion and participation.

5) The quality of formal analyses of acquisition prospects should apparently be stressed rather than the type and amount of analysis. Because some analytical activities are used infrequently and may be poorly prepared, managers may be neglecting important activities that could improve the quality of acquisition decision making.

6) While managers can reduce costs in many acquisition investigations by relying solely on information obtained from the prospect, inexperienced management teams may have difficulty evaluating that information. A note of caution seems warranted here about using experts and secondary sources for information about prospects. Managers should recognize that even though this study did not show external verification or data was necessary, they incur additional risks when the facts provided by the prospect are not confirmed by external sources. Some problems of misrepresentation can be dealt with in the acquisition agreement, but perceptions about markets, demand, etc. are especially susceptible to distortion and these misrepresentations can not usually be dealt with adequately in contracts.

7) CEOs in large firms do not need to be actively involved in decisions to acquire small and medium-sized firms. Rather, they can establish objectives, delegate responsibility and then ratify acquisition decisions.

8) Managers pursuing an acquisition strategy should search for prospects, but prospects identified opportunistically should not be avoided or evaluated differently than those identified by formal search.

Implications for Organizational Decision Making Theories

The theories of organizational decision making discussed in Chapter 2 provided a theoretical framework for this study. The hypotheses in Chapter 4 were developed primarily from a decision characteristics approach. The decision-process model includes decision process activities associated with what Mintzberg et al. (1976) term the evaluation-choice part of the selection phase of their model. The theoretical implications of this research must therefore be evaluated within this somewhat limited context.

The literature review and interviews suggest that there are some patterns in acquisition decision processes. The patterns do not emerge directly from the survey results. At least four types of acquisition decision processes can be identified:

1) The impulsive decision process or "impulse buyer". When managers in a company are presented with a "good" opportunity to acquire a company, they conduct very little intensive search, analytical activity is minimal, and the decision process is of short duration.

2) The rational analytical decision process or "analytical buyer". The managers search extensively for prospects, they conduct an intensive and often efficient search for information using a wide variety of sources, and they conduct a systematic analysis of more than one prospect or investment opportunity.

3) The confirmatory decision process or "pre-sold buyer". Based on prior information or political considerations, the buyer knows what company to purchase. The decision process involves rationalizing and justifying the purchase using minimal information gathering and confirmatory analytical activity. Dissention and negative information are probably surpressed by managers.

4) The cycling decision process or "indecisve buyer". The managers want to make an acquisition. So the buyer collects extensive information on prospects and that data is screened and processed. The indecisive buyer often applies constraints that are unrealistically high so more prospects are usually sought after screening those in the initial pool. A prospect that is identified is extensively analyzed, it is often rejected, much discussion occurs, the managers vacillate on goals for the acquisition. Indecisive buyers rarely acquire companies.

These characterizations have many similarities to those presented in Chapter 2, but different companies at different times will use only one of these processes. While no one characteriztion is descriptive of all acquisition decision processes, rather all do describe types of acquisition decision making. At present, there is no evidence that any of these approaches is more effective for making successful acquisitions.

The following recommendations are based upon my reflections and review of current theories of organizational decision making. They are offered for your consideration:

1) Theories should incorporate the great variability that exists in the evaluation-choice phase of the decision process.

2) The many subdecisions in a broadly defined decision process should be more adequately incorporated into theories of organizational decision making.

3) Process characteristics are interesting, but they may not be the best predictors of decision outcomes. Organizational learning may permit companies with processes that appear dysfunctional to make decisions that have successful outcomes. For example, an impulse buyer may have incorporated programs and routines for efficiently identifying good prospects that are hard to discern. Some of the "programs" may be stored in the memories of managers involved in acquisition decision making and they may not know what information cues and rules they are applying.

4) Context and situational factors are useful for predicting the content of decision processes.

Needs for Future Research

This research project has a number of methodological limitations that warrant a replication with a larger sample, different measures and, if possible, some data gathering concurrent with actual acquisition decision processes. A number of other questions that are not resolved by this research also need to be investigated.

Experienced firms had greater success with the acquisition included in this study. Is this an inherent problem? Can training programs for managers with less experience help them make better acquisition decisions? How much help can consultants and outside experts provide?

Greater participation in decisions was related to less successful acquisitions. Is this a cause and effect relationship? Or is it more a function of the types of companies the managers were trying to acquire? In this study high risk and participation were positively related. Would more participation or involvement of experts have reduced the risk? Can anything be changed about the characteristics of the decision process or the activities of managers to reduce the risk of unrelated acquisitions?

CEO involvement is relatively unimportant in small and medium-sized acquisitions made by large firms. What is the appropriate role for the CEO? When should responsibility be delegated? How do managers in the selling companies respond when the CEO is not actively involved? Are good opportunities missed because of the low level of CEO involvement? Do companies pay more when the CEO is not actively involved?

Few external information sources were used to gather information about a prospect. Is this information really needed? What is the quality of external information? What sources are most helpful?

Formal analytical activity occurs in acquisition decision making. How much does the board of directors rely on the formal analyses? What is the impact of formal analysis on the choice? How effective are the tools that managers use to evaluate prospects?

Summary

This thesis has reviewed descriptive characterizations of the decision process and presented a number of examples of acquisition decision making. The decision process is not always rational and analytical; most often in the larger companies the process seems bureaucratic. Little evidence was found to support the political or incremental characterization. Some evidence can be interpreted as supporting the garbage can characterization. Some of the relationships in the Hage Model (1980) were supported by this research, but a number of issues not discussed previously in the characteristics models have been demonstrated as important, e.g., the effect of participation and intensive search on decision outcomes.

Some prior research findings have been confirmed by this study. One example is Kitching's (1967) finding that unrelated and concentric acquisitions are less successful than horizontal and vertical acquisitions. Also, Allan's (1966) conclusion that firms that have made 6 to 7 acquisitions make more successful acquisitions was confirmed.

The prediction model presented in Chapter 4 was substantially confirmed by this research, but the importance of the decision process model was also demonstrated. The two models are not mutually exclusive.

The research methodology seemed adequate for the project, although as in all studies a larger sample size would have been desirable and it would be informative to gather comparable data on large and very large mergers.

Finally, the project has assembled much descriptive information about corporate acquisition decision making and this thesis should serve as a good starting point for future research studies.

BIBLIOGRAPHY

Abel, T. The element of decision in the pattern of war. American Sociological Review, 1941, 6, 853-859.

Aguilar, F. J. Scanning the business environment. New York: The Macmillan Company, 1967.

Allan, Jr., R. M. Expansion by merger. In W. W. Albert & J. E. Seagill (Eds.), The Corporate Merger. University of Chicago Press, 1966.

Allen, M. G., Oliver, A. R., & Schwallie, E. H. The key to successful acquisitions. The Journal of Business Strategy, 1981, 2 (2), 14-24.

Allison, G. T. Conceptual models and the cuban missile crisis. The American Political Science Review, 1969, 63, 689-718.

Allison, G. T. Essence of decision: Explaining the Cuban missile crisis. Boston: Little, Brown and Company, 1971.

American Can: Diversification brings sobering second thoughts. Business Week, March 24, 1980, 130-132.

Anderson, J. E. (Ed.). Cases in public policy-making. New York, NY: Praeger Publishers, 1976.

Andrews, K. R. The concept of corporate strategy (2nd ed.). Homewood, IL: Richard D. Irwin, 1980.

Ansoff, H. I. Strategic management. New York: John Wiley & Sons, 1979.

Ansoff, H. I., Brandenburg, R.G., Portner, F.E., & Radosevich, R. Acquisition behavior of U.S. manufacturing firms, 1946-1965. Nashville, TN: Vanderbilt University Press, 1971.

Astley, W. G., Axelsson, R., Butler, R. J., Hickson, D. J., & Wilson, D. C. An arena theory of organizational decision processes. Unpublished manuscript, University of Bradford, 1981.

Baker, H. K., Miller, T. O., & Ramsperger, B. J. An inside look at corporate mergers and acquisitions. MSU Business Topics, 1981, 29, 49-57.

Baker International: a growth wizard divides to conquer. Business Week, April 28, 1980, 70; 74.

Barmash, I. Welcome to our conglomerate - you're fired! New York: Dell Publishing Co., Inc., 1972.

Bauer, R. A. Notes on a strategy of research on complex organizational processes. Unpublished manuscript, Harvard Business School, 1972.

Benston, G. J. Conglomerate mergers: Causes, consequences, and remedies. Washington D. C.: American Enterprise for Public Policy Research, 1980.

Bettis, R. A. Performance differences in related and unrelated diversified firms. Strategic Management Journal, 1981, 2, 379-393.

Bettis, R. A. Risk considerations in modeling corporate strategy. Academy of Management Proceedings, 1982, 22-25.

Bettis, R. A. & Hall, W. K. Diversification strategy, accounting determined risks and accounting determined returns. Academy of Management Journal, 1982, 25 (2), 254-264.

Biggadike, R. The risky business of diversification. Harvard Business Review, 1979, 57, 103-111.

Bing, G. Corporate acquisitions. Houston, TX: Gulf Publishing Company, 1980.

Birley, S. G. Acquisition strategy or acquisition anarchy? Journal of General Management, 1976, 3 (3), 67-73.

Birley, S. G. A study of corporate acquisition procedures and their relationship to financial performance. Doctoral dissertation, London University, 1974.

Blau, P. M. & Schoenherr, R. A. The structure of organizations. New York: Basic Books, 1971.

Boise Cascade: Expansionism that now sticks close to home. Business Week, February 19, 1979, 54-55.

Boucher, W.I. The process of conglomerate mergers. Washington, D.C.: Federal Trade Commission, 1980.

Bower, J. L. Descriptive decision theory from the "administrative" viewpoint. In R. A. Bauer & K. J. Gergen (Ed.), The Study of Policy Formation. New York: The Free Press, 1968.

Bower, J. L. Managing the resource allocation process. Harvard University Graduate School of Business Administration, Division of Research Publication, 1970.

Boyd, C. W. & Summers, B. I. Executives' views of strategic management concepts and models. Academy of Management Proceedings, 1982, 26-28.

Bradley, J. W. & Korn, D. H. Acquisitions and mergers: A shifting route to corporate growth. Management Review, 1979, 68, 46-51.

Bradley, J. W. & Korn, D. H. Acquisition and corporate development: A contemporary perspective for the manager. Lexington, MA: D. C. Heath and Company, 1981.

Brockhaus, W. L. A model for success in mergers and acquisitions. S.A.M. Advanced Management Journal, Winter 1975, 40-49.

Brown-Forman: Lighter spirits join the old-time bourbon line. Business Week, December 24, 1979, 92-93.

Brown, J. K. & O'Connor, R. Planning and the corporate planning director. New York: The Conference Board, 1974.

Brunner, R. D. & Liepelt, K. Data analysis, process analysis, and system change. Midwest Journal of Political Science, 1972, 16 (4), 538-569.

Butler, R. J., Astley, W. G., Hickson, D. J., Mallory, G. & Wilson, D. C. Strategic decision-making: concepts of content and process. International Studies of Management and Organizations, 1979, 9 (4), 5-36.

Cameron, D. Appraising companies for acquisition. Long Range Planning, 1977, 10, 21-28.

Campbell, D. T. The informant in quantitative research. American Journal of Sociology, 1955, 60 (4), 339-342.

Campbell, D. T. "Degrees of freedom" and the case study. Comparative Political Studies, 1975, 8 (2), 178-193.

Cannel, C. F. & Henson, R. Incentives, motives and response bias. Annals of Economic and Social Mesurement, 1974, 3 (2), 307-317.

Carter, E. E. The behavioral theory of the firm and top level corporate decisions. Administrative Science Quarterly, 1971, 16, 413-428.

Caves, R. American industry: Structure, conduct, performance (4th ed.). Englewood Cliffs, N.J.: Prentice -Hall, Inc., 1977.

Chaffee, E. E. Decision models in university budgeting. (Doctoral dissertation, Stanford University, 1981). Dissertation Abstracts International, 1981, 41, (11), 4617-A, (University Microfilms No. 8108902).

Chamberlain Manufacturing. Long range planning of acquisitions. Unpublished manuscript, 1977.

Chavez, L. The agglomeration of America. The New York Times, July 12, 1981, 1; 22.

Child, J. Predicting and understanding organization structure. Administrative Science Quarterly, June 1973, 18, 168-185.

Child, J. Organizational structure, environment and performance: The role of strategic choice. Journal of Sociology, 1972, 6, 1-22.

Christensen, C. R., Andrews, K. R., & Bower, J. L. Business policy: text and cases (4th ed.). Homewood, IL.: Richard D. Irwin, Inc., 1978.

Clarke, T. E. Decision-making in technologically based organizations: A literature survey of present practice. IEEE Transactions on Engineering Management, 1974, EM-21, 9-23.

Clarkson, K. W., Miller, R. L. & Blaire, B. West's business law: Text & cases. St. Paul, MN: West Publishing Company, 1980.

Clorox: Picking up the pieces of a diversification that failed. Business Week, March 3, 1980, 42-43.

Cohen, M. D., March, J. G., & Olsen, J. P. A garbage can model of organizational choice. Administrative Science Quarterly, 1972, 17, 1-25.

Collins, B. E. & Guetzkow, H. A social psychology of group processes for decision making. New York, NY: John Wiley & Sons, Inc., 1964.

Connolly, T. Information-processing and decision-making in organizations. In B. M. Staw & G. R. Salancik (Ed.), New directions in organizational behavior. Chicago: St. Clair Press, 1976.

Connor, P. E. Organizational properties and process: Decision patterns in nursing-home institutions. Paper presented at the meeting of the Academy of Management, Atlanta, August 1979.

Converse, J. M. & Schuman, H. Conversations at random: Survey research as interviewers see it. New York, NY: John Wiley & Sons, Inc., 1974.

Crane: Its acquisition of Medusa will give shareholders a hedge. Business Week, April 9, 1979, 116; 120.

Crane, R. R. The place of scientific techniques in mergers and acquisitions. In J. Van Horne (Ed.) Foundations for financial management: A book of readings, Homewood, IL: Richard D. Irwin, Inc., 1966, 581-592.

Crozier, M. The bureaucratic phenomenon. Chicago, IL: University of Chicago Press, 1964.

Cummings, L. L. The importance of processes and contexts in organizational psychology. Paper presented at the meeting of the American Psychological Association, Montreal, September 1980.

Cummings, L. L. A framework for decision analysis and critique. In G. R. Ungson & D. N. Braunstein (Eds.), New directions in decision making: an interdisciplinary approach to the study of organizations. Boston: Kent Publishing, 1982.

Curry, L. Mergers make sense. The Capital Times, August 7, 1981, 14.

Cyert, R. M. & March, J. G. A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1963.

Daft, R. L. System influence on organizational decision making: the case of resource allocation. Academy of Management Journal, 1978, 21, 6-22.

Dana: As light trucks stall, a push into financial services. Business Week, July 21, 1980, 98; 100.

Darlington, R. B. Multiple regression in psychological research and practice. Psychological Bulletin, 1968, 69 (3), 161-182.

Davidson, K. M. Looking at the strategic impact of mergers. The Journal of Business Strategy, 1981, 2 (1), 13-22.

Davis, J. V. The strategic divestment decision. Long Range Planning, 1974 7, 15-18.

Davis, M. S. That's interesting! Towards a phenomenology of sociology and a sociology of phenomenology. Philosophy of the Social Sciences, 1971, 1, 309-344.

Delbecq, A. L. The management of decision making within the firm: Three strategies for three types of decision making. Academy of Management Journal, 1967, 10, 329-339.

Dellenbarger, L. E. & Stewart, L. M. Tried and True Alarm Co. Boston: HBS Case Services, 1977. (Case No. 9-278-691).

Dewey, J. How we think. New York, NY: D. C. Heath & Co., 1910.

Diamond Shamrock: Looking for energy plays to beat inflation. Business Week, December 8, 1980, 73; 76.

Diesing, P. Noneconomic decision-making. Ethics, 1955, 66, 18-35.

DiMaggio, P. & Useem, M. Decentralized applied research: Factors affecting the use of audience research by arts organizations. Journal of Applied Behavioral Science, 1979, 15 (1), 79-94.

Dirsmith, M. Construct validation: A conceptual and empirical examination. Proceedings of the American Institute for Decision Sciences, 1977, 20, 275-276.

Dory, J. P. The domestic diversifying acquisition decision. Ann Arbor, MI: Research Press, 1978.

Downs, A. Inside bureaucracy. Boston: Little, Brown & Company, 1966.

Dror, Y. Muddling through--"science" or inertia? Public Administration Review, 1964, 24, 153-157.

Drucker, P. F. The practice of management. New York, NY: Harper & Brothers Publishers, 1954.

Drucker, P. F. The five rules of successful acquisition. The Wall Street Journal, Thursday, October 15, 1981.

Dubin, R. Theory building (Rev. ed.). New York, NY: The Free Press, 1978.

Dufty, N. F. & Taylor, P. M. The implementation of a decision. Administrative Science Quarterly, 1962, 6, 110-119.

Dun & Bradstreet, Inc. Million dollar directory. New York: Dun & Bradstreet, 1982, vol. I-III.

Duncan, O. D. Path analysis: Sociological examples. The American Journal of Sociology, 1966, 72 (1), 1-16.

Duncan, R. B. Modifications in decision structure in adapting to the environment: Some implications for organizational learning. Decision Sciences, 1974, 5, 705-725.

Duncan, R. B. Qualitative research methods in strategic management. In D. Schendel & C. Hofer (Eds.), Strategic Management: A New View of Business Policy and Planning. Boston: Little, Brown and Co., 1979, 424-447.

Ebeid, F. Tender offers: Characteristics affecting their success. Mergers and Acquisitions, Fall 1976, 21-30.

Ebert, R. J. & Mitchell, T. R. Organizational decision processes: Concepts and analysis. New York: Crane, Russak & Company, Inc., 1975.

Elcocbe, H. Political behavior. London: Methuen & Co., Ltd., 1976.

Ericsson, K. A. & Simon, H. A. Retrospective verbal reports as data (C.I.P. Working Paper No. 388). Carnegie-Mellon University, August 1978.

Etzioni, A. Mixed-scanning: A "third" approach to decision-making. Public Administration Review, December 1976, 385-392.

Fahey, L. On strategic management decision processes. Strategic Management Journal, 1981, 2, 43-60.

Farris, G. F. The informal organization in strategic decision-making. International Studies of Management and Organization, 1979, 9, 37-62.

Federal Trade Commission. Statistical report on mergers and acquisitions. Washington, D.C.: U.S. Government Printing Office, 1981.

Feldman, J. & Kanter, H. E. Organizational decision making. In J. G. March (Ed.), Handbook of organizations. Chicago: Rand McNally, 1965, 614-649.

Filley, A. C., House, R. J. & Kerr, S. Managerial process and organizational behavior (2nd ed.). Glenview, IL: Scott, Foresman and Company, 1976.

Fischhoff, B. & Beyeth, R. "I knew it would happen," remembered probabilities of once-future things. Organizational Behavior and Human Performance, 1975, 13, 1-16.

Folsom, M. B. Executive decision making: Observations and experience in business and government. New York: McGraw-Hill, 1962.

Fogg, C. D. New business planning: The acquisition process. Industrial Marketing Management, 1976, 5, 95-113.

Freier, J.L. Acquisition search programs. Mergers & Acquisitions, 1981, 16 (2), 35-39.

Galbraith, J. K. The new industrial state. New York, NY: Signet Books, 1967.

Gamble-Skogmo: Using a retailing base to move into financing. Business Week, May 28, 1979, 80; 82; 85.

Gay, L. R. Educational research: Competencies for analysis and application. Columbus, OH: Charles E. Merrill Publishing Company, 1976.

Gee, W. Social science research methods. New York: Appleton-Century-Crofts, Inc., 1950.

Gershuny, J. I. Policymaking rationality: A reformulation. Policy Sciences, 1978, 9, 295-316.

Gilmour, S. C. The divestment decision process. (Doctoral dissertation, Harvard University, 1973). Dissertation Abstracts International, July 1973, 34 (1), 12-A. (University Microfilms No. 73-15-917).

Glueck, W. Strategic management and business policy. New York: McGraw-Hill, Inc., 1980.

Glueck, W. F. & Willis, R. Documentary sources and strategic management research. The Academy of Management Review, 1979, 4 (1), 95-102.

Goodman, S. R. (Ed.) Scientific acquisition analysis and evaluation. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1971.

Gore, W. J. Administrative decision-making: A heuristic model. New York, NY: John Wiley & Sons, Inc., 1964.

Grant, J. Garnet Corporation. Boston: HBS Case Services, 1978. (Case No. 9-371-339, rev. 4/78).

Grieve, P. M. A look at domestic mergers and acquisitions. Paper presented in Edwin R. Hodge Lecture Series at The University of Toledo, College of Business Administration, 1968.

Grinyer, P. H. & Yasai-Ardekani, M. Strategy, structure, size and bureaucracy. Academy of Management Journal, 1981, 24 (3), 471-486.

Gulf & Western: An acquisitor tries managing assets to boost return. Business Week, October 27, 1980, 131; 135; 139.

Hage, J. Techniques and problems of theory construction in sociology. New York: John Wiley & Sons, Inc., 1972.

Hage, J. Theories of organizations: Forms, process, and transformation. New York: John Wiley & Sons, 1980.

Hambrick, D. C. Environmental scanning, organizational strategy, and executive role: A study in three industries. (Doctoral dissertation, The Pennsylvania State University, 1979). Dissertation Abstracts International, 1979, 40 (4), 2162-A. (University Microfilms no. 7922294).

Hamermesh, R. Bishopric, Inc. Boston: HBS Case Services, 1977. (Case No. 9-378-025, 5-378-279).

Hannan, M. T. & Freeman, J. H. The population ecology of organizations. American Journal of Sociology, March 1977, 82, 131-171.

Hennessey, J. H., Jr. Acquiring and merging business. Englewoods Cliffs, N.J.: Prentice-Hall, Inc., 1976.

Harrison, E. F. The managerial decision-making process. Boston: Houghton Mifflin Company, 1975.

Havlicek, L.L. & Peterson, N.L. Effect of the violation of assumptions upon significance levels of the Pearson r. Psychological Bulletin, 1977, 84 (2), 373-377.

Hays, W. L. Statistics for the social sciences (2nd ed.). New York: Holt, Rinehart and Winston, Inc., 1973.

Herrmann, A. L. A decision model for mergers and acquisitions. Mergers and Acquisitions, Spring 1976, 10, 14-21.

Heslin, R. & Streufert, S. Task familiarity and reliance on the environment in decision making. The Psychological Record, 18, 1968, 629-637.

Higgins, J. C. & Finn, R. The organization and practice of corporate planning in the U.K. Long Range Planning, August 1977.

Hills, F. S. & Mahoney, T. A. University budgets and organizational decision making. Administrative Science Quarterly, 1978, 23, 454-465.

Hirsch, P. M. Ambushes, shootouts, and knights of the roundtable: the language of corporate takeovers. Paper presented at the meeting of the Academy of Management, Detroit, August 1980.

Hofer, C. W. Toward a contingency theory of business strategy. Academy of Management Journal, 1975, 18 (4), 784-810.

Hofer, C. W. & Schendel, D. Strategy formulation: Analytical concepts. St. Paul, Minn.: West Publishing Company, 1978.

Holiday Inns: Refining its focus to food, lodging--and more casinos. Business Week, July 21, 1980, 100; 104.

House, R. J. & M. L. Baetz. Leadership and some empirical generalizations and new research directions. In B. M. Staw (Ed.), Research in organizational behavior. Greenwich, CT: JAI Press, 1979, 341-423.

Hovers, J. Expansion through acquisition. London: Business Books Limited, 1974.

Howell, W. B. Lessons from an acquisitions specialist. Management Review, 1979, 68 (11), 37-40.

Huber, G. P. Managerial decision making. Glenview, Ill.: Scott, Foresman and Company, 1980.

Huber, G. P. Decision support systems: their present nature and future implications. In G. R. Ungson & D. N. Braunstein (Eds.), New directions in decision making: An interdisciplinary approach to the study of organizations. Boston: Kent Publishing Co., 1981.

Hyatt, D., Riley, K., & Sederstrom, N. Recall of television weather reports. Journalism Quarterly, 1978, 55 (2), 306-310.

Inkson, J. H. K., Pugh, D. S. & Hickson, D. J. Organization context and structure: An abbreviated replication. Administrative Science Quarterly, September 1970, 15, 318-329.

Investing a mountain of cash before the oil runs out: An oil giant's dilemma. Business Week, August 25, 1980, 60-64; 66; 71.

Ira Harris: Chicago's big dealmaker. Business Week, June 25, 1979, 70-74; 78.

ITT: Groping for a new strategy. Business Week, December 15, 1980, 66-69; 72; 77; 80.

Janis, I. L. & Mann, L. Decision making: A psychological analysis of conflict, choice, and commitment. New York: The Free Press, 1977.

Jick, T. D. Mixing qualitative and quantitative methods: Triangulation in action. Administrative Science Quarterly, 1979, 24 (4), 602-611.

Johnson, R. J. Conflict avoidance through acceptable decisions. Human Relations, January 1974, 27 (1), 71-82.

Keen, P. G. W. & Morton, M. S. S. Decision support systems: An organizational perspective. Reading, Mass.: Addison-Wesley Publishing Company, 1978.

Kellogg, D. E. How to buy a small manufacturing business. Harvard Business Review, September 1975, 53, 92-102.

Kelly, E. M. The profitability of growth through mergers. University Park, PA: Pennsylvania State University Press, 1967.

Kennecott Copper: Downplaying its acquisition of Carborundum. Business Week, August 11, 1980, 82-83.

Kerlinger, F. N. Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart and Winston, Inc., 1973.

Khandwalla, P. The design of organizations. New York: Harcourt, Brace, Jovanovich, 1977.

Kimberly, J.R. Organizational size and the structuralist perspective: A review, critique, and proposal. Administrative Science Quarterly, 1976, 21 (4), 571-597.

Kitching, J. Why do mergers miscarry? Harvard Business Review, November 1967, 45, 84-101.

Kleinmutz, B. The processing of clinical information by man and machine. In B. Kleinmuntz (Ed.) Formal representation of human judgment. New York: John Wiley & Sons, 1968, ch.6.

Koontz, H. The management jungle revisited. The Academy of Management Review, 1980, 5 (2), 175-187.

Kotter, J. P. The general managers. New York: The Free Press, 1982.

Kumar, P. Corporate growth through acquisitions. Managerial Planning, July 1977, 26 (1), 9-12, 39.

Labovitz, S. The assignment of numbers to rank order categories. American Sociological Review, 1970, 35 (3), 515-524

Leontiades, M. A. Strategies for diversification and change. Boston: Little, Brown and Company, 1980.

Levinson, H. A psychologist diagnoses merger failures. Harvard Business Review, March 1970, 48, 139-147.

Lindblom, C. E. The science of "muddling through". Public Administration Review, 1959, 19, 155-19.

Lindblom, C. E. The intelligence of democracy: Decision making through mutual adjustment. New York: The Free Press, 1965.

Linowes, David F. Managing growth through acquisition. American Management Association, 1968.

Loasby, B. Choice, complexity and ignorance: An inquiry into economic theory and the practice of decision making. New York, NY: Cambridge University Press, 1976.

Locke, E. A. & Schweiger, D. Participation in decision-making: One more look. In B. Staw (Ed.), Research in organizational behavior, (Vol. 1). Greenwich, Conn.: JAI Press, 1979, 265-339.

Lofland, J. Analyzing social settings. Belmont, CA: Wadsworth Publishing Co., Inc., 1971.

Lorange, P. Corporate planning. Englewood Cliffs, NJ: Prentice-Hall, 1980.

LTV: On the acquisition trail again, but now in aerospace and energy. Business Week, November 3, 1980, 66; 68.

Lubatkin, M. A market model analysis of merger strategies. (Working Paper No. 82-5), Wichita State University, 1982.

Lyles, M. A. and Mitroff, I. I. Organizational problem formulation: An empirical study. Administrative Science Quarterly, March 1980, 25 (1), 102-119.

MacCrimmon, K. R. & Taylor, D. N. Decision making and problem solving. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology. Chicago, IL: Rand McNally, 1976.

Mace, M. L. & Montgomery Jr., G. G. Management problems of corporate acquisitions. Boston: Division of Research Graduate School of Business Administration, Harvard University, 1962.

Mack, R. P. Planning on uncertainty: Decision-making in business and government administration. New York, NY: Wiley-Interscience, 1971.

Mahoney, T. A. Managerial perceptions of organizational effectiveness. Management Science, 1967, 14 (2), 76-91.

March, J. G. The business firm as a political coalition. The Journal of Politics, 1962, 24, 662-678.

March, J. G. & Olsen, J. P. Ambiguity and choice in organizations. Bergen, Norway: Universitetsforlaget, 1976.

March, J. G. & Simon, H. A. Organizations. New York: John Wiley & Sons, Inc., 1958

Mazzolini, R. Strategic decisions in government controlled enterprises. Administration and Society , May 1981, 13 (1), 7-31.

McCall, M.M. Courtship as social exchange: Some historical comparisons. In B. Farber (Ed.), Kinship and family organization. New York: John Wiley & Sons, 1966, 190-200.

McCarthy, D. J., Minchiello, R. J., & Curran, J. R. Business policy and strategy: Concepts and readings. Homewood, Ill.: Richard D. Irwin, Inc., 1979.

McCarthy, G. D. Premeditated merger. In J. Van Horne (Ed.), Foundations for financial management: A book of readings. Homewood, IL: Richard D. Irwin, Inc., 1966.

Mergers and corporate policy. Boston: Cambridge Corporation Publishers, 1982.

Miles, M. B. Qualitative data as an attractive nuisance: The problem of analysis. Administrative Science Quarterly, 1979, 24 (4), 590-601.

Miles, R. H. Macro organizational behavior. Santa Monica, CA: Goodyear Publishing Company, Inc., 1980.

Mintzberg, H. _The nature of managerial work_. New York: Harper and Row, 1973.

Mintzberg, H. The manager's job: Folklore and fact. _Harvard Business Review_, July-August 1975, _53_, 49-61.

Mintzberg, H., Raisinghani, D. & Theoret, A. The structure of "unstructured" decision processes. _Administrative Science Quarterly_, 1976, _21_, 246-274.

Mintzberg, H. An emerging strategy of "direct" research. _Administrative Science Quarterly_, 1979, _24(4)_, 582-589.

Moch, M. K. & Pondy, L. R. The structure of chaos: Organized anarchy as a response to ambiguity. (Review of _Ambiguity and choice in organizations_ by J. G. March & J. P. Olsen). _Administrative Science Quarterly_, 1977, _22_ (2), 351-362.

Montgomery, C. _Diversification, market structure and economic performance_. (Doctoral dissertation, Purdue University, 1979).

Moser, C. A. & Kalton, G. _Survey methods in social investigation_ (2nd ed.). New York: Basic Books, Inc., 1972.

Mowday, R. T. & Steers, R. M. _Research in organizations: Issues and controversies_. Santa Monica, CA: Goodyear Publishing Company, Inc., 1979.

Murray, J. A. Toward a contingency model of strategic decision. _Industrial Studies of Management and Organization_, Winter 1978-79, _8_ (4), 7-34.

Nabisco: Diversifying again, but this time wholeheartedly. _Business Week_, October 20, 1980, 1; 74.

Nutt, P. C. Influence of decision styles on use of decision models. _Technological Forecasting and Social Change_, 1979, _14_, 77-93.

Nutt, P. C. Models for decision making in organizations and some context variables which stipulate Optimal Use. _Academy of Management Review_, 1976, _1_ (2), 84-98.

O'Connor, R. _Managing corporate development_. New York: The Conference Board, 1980, report no. 771.

Odiorne, G. S. Management decisions by objectives. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969.

Olm, K. W., Brewerton, F. J., Whisnant, S. R., & Bridges, F. J. Management decisions and organizational policy (3rd ed.). Boston: Allyn and Bacon, Inc., 1981.

Olshavsky, R. W. & Granbois, D. H. Consumer decision making--fact or fiction? Journal of Consumer Research, September 1979, 6, 93-100.

Oursler, W. From ox carts to jets. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959.

Paine, F. T. & Anderson, C. R. Contingencies affecting strategy formulation and effectiveness: An empirical study. The Journal of Management Studies, May 1977, 14, 147-158.

Paine, F. T. & Naumes, W. Organizational strategy and policy. Chicago: Dryden Press, 1982.

Parsons, R. Q. & Baumgartner, J. S. Anatomy of a merger. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1970.

Patchen, M. The locus and basis of influence on organizational decisions. Organizational Behavior and Human Performance, 1974, 11, 195-221.

Perfection is hard to find, new surveys of mergers, markets cited in failures. Wall Street Journal, June 6, 1982, 1.

Pettigrew, A. M. The politics of organizational decision-making. London: Tavistock, 1973.

Pfeffer, J. & Salancik, G. R. The external control of organizations: A resource dependence perspective. New York: Harper & Row, 1978.

Pfeffer, J. & Salancik, G.R. Organizational decision making as a political process: the case of a university budget. Administrative Science Quarterly, 1974, 19 (2), 135-151.

Pfeffer, J. Merger as a response to organizational interdependence. Administrative Science Quarterly, 1972, 17 (3), 382-394.

Reitzel, W. A. Background to decision-making. Unpublished manuscript, Naval War College, June 1958.

Riker, W. H. The theory of political coalitons. New Haven, Conn.: Yale University Press, 1965.

Ritchie, J. R. B. Roles of research in the management process. MSU Business Topics, 1976, 24 (3), 13-22.

Roberts, K. H., Hulin, C. L., & Rousseau, D. M. Developing an interdisciplinary science of organizations. San Francisco: Jossey-Bass Publishers, 1978.

Rockwell Jr., W. F. How to acquire a company. Harvard Business Review, September 1968, 46, 121-132.

Rodriquez, R.M. Cummins Engine Company, Inc. Boston: Intercollegiate Case Clearing House, 1977. (Case No. 9-277-187).

Rogers, R. E. The political process in modern organizations. New York: Exposition Press, 1971.

Roscoe, J. T. Fundamental research statistics for the behavioral sciences. New York: Holt, Rinehart and Winston, Inc., 1969.

Rumelt, R. P. Evaluation of strategy: Theory and models. In D. Schendal and C. Hofer (Eds.), Strategic management. Boston: Little, Brown & Co., 1979, 196-212.

Rumelt, R. P. Strategy, structure, and economic performance. Boston: Division of Research Graduate School of Business Administration, Harvard University, 1974.

Salter, M. S. & Weinhold, W. A. Choosing compatible aquisitions. Havard Business Review, 1981, 59 (1), 117-127.

Salter, M. S. & Weinhold, W. A. Diversification through acquisition: Strategies for creating economic value. New York: The Free Press, 1979.

Scharf, C. A. Acquisitions, mergers, sales and takeovers: A handbook with forms. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1971.

Pfeffer, J. Power in organizations. Marshfield, Mass.: Pitman Publishing Inc., 1981.

Pfiffner, J.M. Administrative Rationality. Public Administrative Review, 1960, 20, 125-132.

Playtex: Buying its way from function to fashion. Business Week, July 7, 1980, 40-41.

Porter, M. Competitive strategy. New York: The Free Press, 1980.

Pounds, W. F. The process of problem finding. Industrial Management Review, Fall 1969, 11 (1), 1-19.

Power, D. J. & Huber, G. P. Guidelines for using key informants and retrospective reports in strategic management research. Proceedings of the American Institute for Decision Sciences, November 1982, 29-31.

Pugh, D.S. The measurement of organization structures. Organization Dynamics, 1973, 1, 19-34.

Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. The context of organization structure. Administrative Science Quarterly, March 1969, 14, 91-114.

Quinn, J. B. Strategic goals: Process and politics. Sloan Management Review, 1977, 19 (1), 21-36.

Rados, D. L. Selection and evaluation of alternatives in repetitive decision making. Administrative Science Quarterly, 1972, 17, 196-206.

Rappaport, A. Strategic analysis for more profitable acquisitions. Harvard Business Review, 1979, 57 (4), 99-110.

Reed, S. F. Corporate growth by strategic planning (part 1): Developing a Strategy. Mergers & Acquisitions, 1977, 12 (3), 4-27.

Reed, S. F. On the dynamics of group decision making in high places. Directors & Boards, Winter 1978, 1, 40-56.

Rees, A. Labor economics: Effects of more knowledge. American Economic Review, 1966, 56, 559-566.

Schendel, D. E. & Hofer, C. W. Strategic management: A new view of business policy and planning. Boston: Little, Brown and Company, 1979.

Scherer, F. M. Industrial market structure and economic performance (2nd ed.). Chicago: Rand McNally, 1980.

Schwab, D. P. Construct validity in organizational behavior. In B. Staw & L. L. Cummings (Eds.), Research in organizational behavior (Vol. 2). Greenwich, Conn.: JAI Press, 1979.

Scott, O. J. The exception: The story of Ashland Oil and Refining Company. New York: McGraw-Hill Book Company, 1968.

G.D. Searle: Trying once again for the right acquisition mix. Business Week, March 19, 1979, 150; 152.

Seidler, J. On using informants: A technique for collecting quantitative data and controlling measurement error in organization analysis. American Sociological Review, 1974, 39 (6), 816-831.

Sellitz, C., Jahoda, M., Deutsch, M., & Cook, S. Research methods in social relations (3rd ed.). New York: Holt, Rinehart & Winston, 1962.

Shapiro, W. Empire builder. Washington Post Magazine. September 19, 1982, 9-19.

Shearson Hayden Stone: Building a warehouse of financial services. Business Week, May 21, 1979, 111-112.

Short, R. A. Business mergers: How and when to transact them. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967.

Shull, F. A., Delbecq, A., & Cummings, L. L. Organizational decision making. New York: McGraw-Hill Book Co., 1970.

Sieber, S.D. The integration of fieldwork and survey methods. American Journal of Sociology, 1973, 78 (6), 1335-1359.

Simon, H.A. Information processing models of cognition. Annual Review of Psychology, 1979, 30, 363-396.

Simon, H.A. Theories of decision-making in economics and behavioral science. The American Economic Review, June 1959, XLIX (3), 253-283.

Simon, H. A. The Shape of Automation for Men and Management. New York: Harper & Row, 1965.

Simon, H. A. Administrative behavior: A study of decision-making processes in administrative organization (3rd Ed.). New York: The Free Press, 1976.

Simon, J. L. Basic research methods in social science. New York: Random House, 1969.

Slovic, P., Fischhoff, B. & Lichtenstein, S. Behavioral decision theory. Annual Review of Psychology, 1977, 28, 1-39.

Snyder, R. C. A decision-making approach to the study of political phenomena. In R. Young (Ed.), Approaches to the study of politics. Chicago: Northwestern University Press, 1958.

Snyder, R. C. Game theory and the analysis of political behavior. In S. K. Bailey (Ed.), Research frontiers in politics and government. Washington, D.C.: The Brookings Institution, 1955.

Soltys, T.C. & Roth, S. Mobil Oil Corporation. Boston: Havard Business Case Services, 1977. (Case No. 9-378-126).

Sprengel, D.P. Patterns of organization in gubernatorial staffs. In D.P. Sprengel (Ed.), Comparative state politics: A reader. Columbus, OH: Charles E. Merrill Publishing Co., 1971.

Stagner, R. Corporate decision making: An empirical study. Journal of Applied Psychology, 1969, 53 (1), 1-13.

Stahl, M. J. & Zimmerer, T. W. Modeling acquisition policies in industry: An analysis of executives' acquisition decisions. Paper presented at National Academy of Management meeting, New York, August 1982.

Standard Brands: When a new product strategy wasn't enough. Business Week, February 18, 1980, 142-145.

Stanford, M. J. Omark Industries: The board of directors meeting. Management Policy. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1979.

Staw, B. M. Rationality and justification in organizational life. In B. M. Staw & L. L. Cummings (Eds.), Research in organizational behavior (Vol. 2). Greenwich, Conn.: JAI Press, 1980.

Steers, R M. Problems in the measurement of organizational effectiveness. Administrative Science Quarterly, December 1975, 20(4), 546-558.

Steiner, G. A. Strategic planning: What every manager must know. New York: The Free Press, 1979.

Stich, R. S. Have U.S. mergers been profitable? Management International Review, 1974, 14 (2/3), 33-40.

Stone, E. F. On the use of incumbent-supplied job characteristics data. Paper presented at the Midwest meeting of the Academy of Management, Bloomington,IN, March 1978.

Stotland, J. A. Planning acquisitions and mergers. Long Range Planning, February 1976, 66-71.

Stroup, A.L. Marriage and family: A developmental approach. New York: Appleton-Century-Crofts, 1966.

A takeover wave hits small banks. Business Week, October 23, 1978, pp. 116-117.

Taylor, D. W. Decision making and problem solving. In J. G. March (Ed.), Handbook of Organizations. Chicago: Rand McNally, 1965.

Tesoro Petroleum: The irony of becoming a takeover target. Business Week, October 6, 1980, 61-62.

Textron: Shaking up the divisions to enliven a sluggish conglomerate. Business Week, May 26, 1980, 88; 92-93.

Thompson, J. D. Organizations in action. New York: McGraw-Hill, 1967.

Ticor: The boomerang effect of an insurance plan. Business Week, February 26, 1979, 132; 137.

Tosi, H. L. Theories of organization. Chicago: St. Clair Press, 1975.

Trump, R.M. Continental Telephone Company. Boston: Harvard Business School Case Services, 1978. (Case No. 9-378-689).

Turning Warner-Lambert into a marketing conglomerate. Business Week, March 5, 1979, 60-64; 66.

Udell, J. G. The merger experience of Wisconsin companies. Unpublished manuscript, 1970.

Uttal, B. Knighthood is still in flower at General Signal. Fortune, 1980, 102 (7), 58-64.

Uyterhoeven, H. E., Ackerman, R. W., & Rosenblum, J. W. Strategy and organization: Text and cases in general management. Homewood, IL: Richard D. Irwin, Inc., 1977.

Vignola Jr., L. Strategic divestment. New York: AMACOM, A Division of American Management Associations, 1974.

von Bauer, E. E. Meaningful risk and return criteria for strategic investment decisions. Mergers & Acquisitions, 1981, 15 (4), 5-17.

Wallace, F. D. Some principles of acquisition. In W. W. Alberts & J. E. Segall (Eds.), The corporate merger. Chicago: University of Chicago Press, 1966.

White Consolidated's new appliance punch: Champagne purchases at beer prices. Business Week, May 7, 1979, 94-98.

Williamson, O. E. Markets and hierarchies: Analysis and antitrust implications. New York: The Free Press, 1975.

Witte, E. Field research on complex decision-making processes--the phase theorem. International Studies of Management and Organization, 1972, 2(2), 156-182.

Wright, P. The harassed decision maker: Time pressures, distractions, and the use of evidence. Journal of Applied Psychology, 1974, 59 (5), 555-561.

Yin, R.K. & Heald, K.A. Using case survey method to analyze policy studies. Administrative Science Quarterly, 1975, 20 (3), 371-381.

Zand, D. Reviewing the policy process. California Management Review, 1978, 21 (1), 35-46.

Zetterberg, H.L. On theory and verification in sociology (3rd ed.). Totowa, N.J.: The Bedminster Press, 1966.

APPENDIX 1 -- LETTERS AND MATERIALS

COLLEGE OF BUSINESS AND MANAGEMENT
University of Maryland at College Park 20742

February 23, 1982

Mr.
President
Corp.
Rd.
, MI 48092

Dear Mr. :

Your help is critically important to the success of my research project on corporate acquisition decision processes. Results of the research will be reported in my Ph.D. dissertation and hopefully in journal articles. Also, if your firm participates in the project, you will receive a confidential report on how screening and evaluation of an aquisition prospect by your firm compares with norms from the project. Both you and I can benefit from successful completion of this project.

This research project has many benefits and small costs for you and your firm. The aggregated results and the confidential report can suggest new activities to increase the success rate of your acquisition program. Also, the results may help you eliminate unnecessary activities and reduce the skyrocketing costs of acquisition programs.

Because of resource constraints, only a few companies can be asked to provide information for the study. Your company has made an important acquisition in the past three years and I think you could benefit from results of the study. If you or another manager with primary responsibility for your acquisition program would consider spending 30-45 minutes talking with me about one of your acquisitions, then please complete the enclosed project participation form (blue sheet).

All of the company-specific information obtained in this study will be kept confidential, and published results will be presented for groups of companies rather than single companies. Results of the study would be sent directly to you within a few months of its completion.

Enclosed is a brief sketch of my background, a list of references, and a short description of the project. If you have questions, please call me at (301) 454-6725.

I hope that you agree that this type of research yields results that are mutually beneficial.

Sincerely,

Daniel J. Power

COLLEGE OF BUSINESS AND MANAGEMENT
University of Maryland at College Park 20742

To: Director of Public Relations
Buyer (Co. Name)
Address
City and Zip Code

From: Daniel J. Power
Subject: Request for information
Date: February 1, 1982

For the past 15 months, I have been studying corporate acquisition decision processes. At this point in my research, I need additional information about your firm. If it is possible, I would like a copy of your firm's most recent annual report (or a similar document). Also, I would like to read about the background and achievements of Mr. CEO or President (Name) and other major officers at your firm.

Thank you for your assistance,

Daniel J. Power

Please mail any materials to:

Professor Daniel Power
College of Business and Management
University of Maryland
Rm. 1135E Tydings Hall
College Park, MD 20742

March 3, 1982

To: Director of Public Relations
From: Daniel J. Power
Subject: Request for Information

Recently, I requested an annual report and background information about major officers at your firm. I had hoped to read these materials before writing the CEO of your company, but my schedule of activities dictated that I write him before I had heard from you. I am however still interested in receiving the materials.

Please send materials to:

Professor Daniel Power
College of Business and Management
University of Maryland
Tydings Hall
College Park, MD 20742

COLLEGE OF BUSINESS AND MANAGEMENT
University of Maryland at College Park 20742

May 18, 1982

To:
From: Daniel Power
Subject: Completion of data collection

With your help my research on corporate acquisition decision making will be completed successfully. In the past five weeks I have received questionnaires from 25 major U.S. corporations. Some CEO's have filled out the questionnaire; others have been completed by directors of acquisitions or corporate development; and some by corporate treasurers or corporate counsel. The very favorable response has been encouraging, but I can perform much more meaningful statistical analyses with the participation of 10 more companies.

If you complete the questionnaire in the next few weeks, I can include your data in my study. Also, I will provide you with a confidential report comparing the decision process that you completed with that of similar firms participating in the study. A cooperative research study,like this one, can benefit both of us.

COLLEGE OF BUSINESS AND MANAGEMENT
University of Maryland at College Park 20742

Corporate Acquisition Decision Behavior in U.S. Conglomerate and Manufacturing Firms: Determinants and Consequences

Fact Sheet

-- participating firms can receive a confidential report comparing their screening and evaluation of a acquisition prospect with norms from the study

-- all of the deals included in the study were completed between October 1979 and April 1980

-- resource constraints limit the number of companies that can participate

-- information is being collected from CEO's and top specialists in acquisitions and mergers

-- the largest investment banking acquisitions and mergers unit is cooperating with the study and providing performance information

-- the research department of a large New York bank is cooperating with the study and providing performance information

-- more than 20 major U.S. firms are presently providing information about an aquisition completed during the time frame for the study

-- all of the company-specific information obtained in the study will be kept confidential, published results will be presented for groups of companies rather than single companies

-- results of the study would be sent directly to you within a few months of the completion of the study

Corporate Acquisition Decision Behavior in U.S. Conglomerate and Manufacturing Firms: Determinants and Consequences

Many U.S. managers consider growth and diversification by acquisition and merger as the best strategy for their firms. Given the commitment to this strategy, it is necessary for organizational scientists to investigate the management and decision processes that precede business acquisitions. Some decision processes may be both more effective, resulting in acquisitions that meet more organizational goals and needs, and more efficient, producing desired results with a lower expenditure of resources, than others. Also, some decision processes may be more appropriate in one type of organization or decision situation than in another. This paper summarizes a research project to investigate these issues related to the management and design of corporate acquisition decision processes and programs.

Research Questions

Prior descriptive research on corporate acquisition decision processes provided a starting point for this project. Issues that have not been previously studied are examined. Issues that have been investigated by two or more researchers who found differing results are again examined. And some counter-intuitive findings of single research studies are also studied. Some of the major questions investigated include:

1) Do some decision process activities predict short-run success for an acquisition? Are some activities unrelated to success or related to failure?

2) How involved is the Chief Executive Officer in acquisition decision processes? Does the amount of CEO involvement predict success? In what circumstances are CEO's involved?

3) Does participation in the decision process by the management team predict short-run success? When managers have participated in decision making, is implementation of the decision evaluated as more successful?

4) Do managers use more complex and extensive decision processes when an unrelated business is acquired?

5) Do managers who are experienced making acquisitions design and use substantially different decision processes than inexperienced managers?

6) Does the decision process differ when the organization initiates and plans a search for acquisition prospects as compared to the process that follows an unplanned initiation by the seller or a broker?

To gather information about these questions, this research project combines historical, interview, survey research and correlational methodologies. Data for the study will be obtained from published sources, from managers in firms that have recently made aquisitions and from experts in the securities industry.

Managers in 32 business organizations will be asked to provide retrospective accounts and answers to structured questions for a specific, recent acquisition made by their firm. A 30-45 minute research schedule has been designed and pre-tested for the study. The schedule gathers information from the managers about possible determinants of corporate acquisition decision behavior i.e., the amount of experience of managers at the firm making acquisition decisions, the perceived risk of the acquisition (belief held during the decision process) and the type of initiation of the decision process (planned vs. unplanned). Also, information is gathered on the decision process used in the firm i.e., the amount of analytical activity, the amount of participation in the decision process by the management team, the amount of CEO involvement and the amount of intensive search for information about the acquisition prospect. Managers will also be asked to evaluate the current performance of the acquired firm.

The experts in the securities industry will also evaluate the current performance of the acquired firms and assess the long-run prospects for the acquisition.

The data from the managers will be obtained in phone interviews and the data from the securities analysts and investment bankers will be obtained during in-person interviews. All of the data obtained in the study is considered confidential. Only aggregate results, correlation analyses, descriptive statistics and cross-tabulations, will be reported. Some individual reports will be prepared for companies participating in the study, but this information is intended only for use by companies requesting a company-specific analysis and comparison of their program with others in the study.

D. Power/1982

The following people have agreed to answer general questions about the research project titled -- "Corporate Acquisition Decision Behavior in U.S. Conglomerate and Manufacturing Firms: Determinants and Consequences". Please contact them directly or contact the Project Director, Daniel Power, at (301) 454-6725.

Robert H. Bock
Dean, School of Business
University of Wisconsin-Madison
1155 Observatory Drive
Madison, WI 53706
(608) 262-1553

George P. Huber
Professor of Business and Industrial Engineering
University of Wisconsin-Madison
Graduate School of Business
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Rudolph P. Lamone
Dean, College of Business and Management
University of Maryland at College Park
Tydings Hall
College Park, MD 20742
(301) 454-5383

Harold Stieglitz
Vice President - Management Research
The Conference Board
845 Third Avenue
New York, NY 10022
(212) 759-0900

PROJECT PARTICIPATION FORM

Please identify a manager who is familiar with the activities that occurred during the investigation, decision process, and negotiations with:

____

○ You should send me your questionnaire and then interview me by phone

○ You should contact another manager for an interview, please contact:

Name: ________________________________

Address: ________________________________

________________________ Zip Code: __________

Phone: ____________________
area code number

○ Please prepare an individual analysis comparing the decision process we used with that of other companies in your study.

○ Send me only a summary of your results. I do not want an individual analysis of our decision process.

____
signature

APPENDIX 2 -- RESEARCH QUESTIONNAIRE

Corporate Acquisition Decision Process Research Schedule

All of the information provided for this study is confidential; it will not be released to the public or to private companies in any way that would permit identification of you or your company.

In this study, the decision process for one specific acquisition is examined. In the questions that follow the company that your firm acquired is referred to as CO. NAME. Most of the questions are about YOUR FIRM's acquisition of:

______________________________ (CO. NAME)

1. Who was THE CEO at YOUR FIRM during the acquisition of CO. NAME?

____

____

2. How many companies did your firm investigate and examine as potential acquisitions during the period 1975 through 1979?

____

3. And how many companies did your firm actually acquire during the period 1975 through 1979?

____

4. In how many acquisition decisions had THE CEO participated prior to the acquisition of CO. NAME?

____

5. Prior to the acquisition of CO. NAME, how experienced with acquisition decision making, search and negotiations did you consider the management team at YOUR FIRM? Please rate your management team on a scale of 1 to 10, where 1 means no one had any experience and we were "flying by the seat of the pants" and 10 means we had extensive experience and we were all experts.

1	2	3	4	5	6	7	8	9	10
no experience							extensive experience		

6. How was CO. NAME originally brought to the attention of managers at YOUR FIRM as a potential acquisition prospect?

1) A formal search for companies was conducted in-house at OUR FIRM, we identified CO. NAME

2) We were looking for companies and a finder brought CO. NAME to our attention

3) We weren't looking for companies, but a finder brought CO. NAME to our attention

4) We were looking for companies and CO. NAME approached us

5) We weren't looking for companies, but CO. NAME approached us

6) We had previously made investments in CO. NAME and based on our knowledge we decided to consider them for acquisition

7) Don't know, don't recall

8) Other ______________________________

7. Approximately what month and year was CO. NAME brought to the attention of managers at your firm as an aquisition prospect?

Month: ________________ 19 ______

8. When CO. NAME was initially identified as an acquisition prospect, what did you think the chances in ten were that the consequences of an acquisition would be favorable to YOUR FIRM? Please answer on a scale from 1 to 10, where 1 means a very small chance of favorable consequences and 10 means it was certain the consequences would be favorable.

1 2 3 4 5 6 7 8 9 10 (chances in 10)

9. Were formal acquisition objectives established prior to identification of CO. NAME as an acquisition prospect?

1) Yes 2) No

10. Prior to the identification of CO. NAME as a prospect, did YOUR FIRM have a formal strategy and plan for finding suitable acquisition prospects?

1) Yes (Go to Q. 11) 2) No (Go to Q. 12)

11. Please state briefly what your strategy and plan were for finding prospects prior to the identification of CO. NAME?

12. What was the business relationship of CO. NAME to YOUR FIRM?

1) A customer or supplier of OUR FIRM

2) A company with the same customers and products/services as OUR FIRM or a unit of our firm

3) A company that had customers and products/services with characteristics similar to those of OUR FIRM

4) A company that had customers and products/services with characteristics new to OUR FIRM

13. Were other companies aggressively competing with you to acquire CO. NAME?

1) Yes 2) No

14. Was CO. NAME having financial problems at the time of the acquisition?

1) Yes 2) No

FORMAL ANALYTICAL ACTIVITIES

Column	Question	Code
23	15. Prepared detailed demand forecasts for CO. NAME's products/services	Code same as Col. 18
24	16. Prepared a report comparing CO. NAME to other investment opportunities	"
25	17. Evaluated CO. NAME against written acquisition objectives	"
26	18. Completed a written checklist for evaluating acquisition candidates	"
27	19. Investigated the managers of CO. NAME	"
28	20. Prepared a report on compatibility of marketing, production, accounting, and information systems	"
29	21. Had a specialist investigate tax issues	"
30	22. Investigated worker satisfaction, employee turnover, pensions and contracts	"
31	23. Developed written plans for utilizing top-management personnel of CO. NAME	"
32	24. Prepared written plans to integrate the companies following a merger	"
33	25. Examined dilution of earnings per share, and debt/equity ratios	"
34	26. Determined payback period, cash flows and/or projected Return on Investment	"
35	27. Prepared a report on CO. NAME's competitors and environmental factors affecting CO. NAME	"
36	28. Analyzed unsettled litigation, claims and long-term contracts of CO. NAME	"

AMOUNT OF PARTICIPATION IN DECISION MAKING

Column	Question	Code
37	29. To make direct contact with CO. NAME	0. None 1. Few 2. Many 7. DK 8. Decision not made by us 9. No Answer
38	30. To submit a proposal and enter negotiations	Code same as Col. 37
39	31. To make an offer	"
40	32. The amount of the offer	"
41	33. The negotiating strategy	"
42	34. The person to conduct negotiations	"
43	35. To accept an agreement-in-principle	"
44	36. The financing plan	"
45	37. To accept the final deal	"

AMOUNT OF INTENSIVE SEARCH--EXPERTS (Q38-42), SECONDARY SOURCES (Q43-47), DIRECT CONTACT (Q48-50)

Column	Question	Code
46	38. business brokers or investment bankers	0. Never 1. One occasion 2. Few occasions 3. Many occasions 7. DK 9. NA
47	39. management consultants	Code same as col. 46
48	40. stock brokers/analysts	"
49	41. discussions with suppliers/ customers of CO. NAME	"
50	42. industry experts, e.g., retired executives	"
51	43. computerized data bases, MERGEX, COMPUSTAT	"
52	44. newspapers/magazines	"
53	45. annual reports/10Ks/ Moody's/credit reports	"
54	46. trade association reports and analyses	"
55	47. in-house files/reports	"
56	48. discussions with managers in selling firm	"
57	49. visits to selling firm plants and offices	"
58	50. dinner and social meetings with managers in selling firm	"

AMOUNT OF CEO INVOLVEMENT

Column	Question	Code
59-60	51. (overall level of involvement)	Code 2 digit number 01. very little involvement 10. extensive involvement 00. NA
61	52. a. Make initial contact with managers at CO. NAME	Code same as Col. 18
62	52. b. Conduct negotiations	"
63	52. c. Hold regular meetings to evaluate information about CO. NAME	"
64	52. d. Plan and direct staff investigations	"
65	52. e. Make visits to offices/plants of CO. NAME	"
66	52. f. Present the "deal" to YOUR FIRM's Board of Directors	"
67-69	53. (CEO hours involvement)	Code 3 digit number 000. NA
70	54. (separate dept.)	Code same as Col. 18
71	55. (in charge)	1. CEO 2. President 3. Exec. V.P. 4. Head acq. unit 5. other V.P. 6. staff person 7. other

CARD 2

Column	Question	Code
1	Card number	Code 2
2-3	Company number	Code 2 digit number
4-6	7 and 56 (Duration in months of Decision Process)	Code 3 digit number
INTEGRATION ACTIVITIES		
7	57 a.	1. Yes 2. No 7. DK 9. NA
8	57.b.	Code same as Col. 7
9	57.c.	"
10	57.d.	"
11	57.e.	"
12	57.f.	"
13-14	58 (effectiveness of integration activities)	Code 2 digit number 01. ineffective 10. effective 00. NA

ACQUISITION EFFECTIVENESS

Column	Question	Code
15-16	59. (Financial)	Code 2 digit number 01. very dissatisfied 10. very satisfied 00. NA
17-18	60. (Contribution to Goals)	Code same as Col. 15-16
19-20	61. (labor relations)	"
21-22	62. (investment demand)	"
23-24	63. (performance of managers)	"
25-26	64. (price paid)	"
27-28	65. (future prospects)	"

REASONS FOR MAKING ACQUISITION

Column	Question	Code
29-30	66.a.	Code 2 digit number 01. very important 10. very trivial 00. NA
31-32	66.b.	Code same as Col. 29-30
33-34	66.c.	"
35-36	66.d.	"
37-38	66.e.	"
39-40	66.f.	"
41-42	66.g.	"
43-44	66.h.	"
45-46	66.i.	"
47-48	66.j.	"
49-50	66.k.	"
51-52	66.l.	"
53-54	66.m.	"
55-56	66.n.	"

Column	Question	Code
57	CEO complete questionnaire	Code same as Col. 7
58	Records used in completing questionnaire	Code same as Col. 7
59-60	Respondent involvement (repeat if CEO) overall involvement	01. very little 10. extensive 00. NA
61-63	Hours spent on acquisition related activities	Code 3 digit number 000. NA

CARD 3

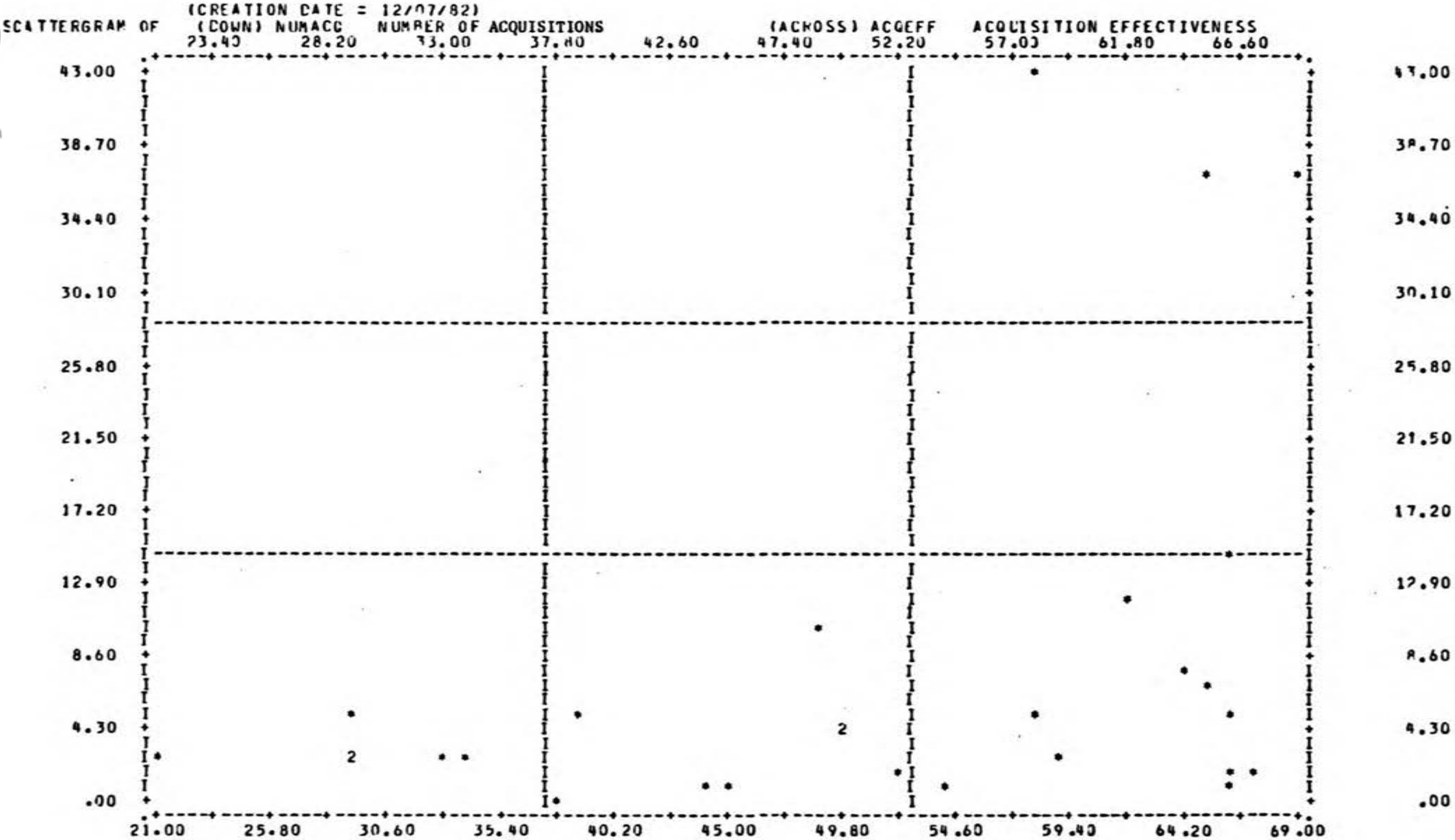
Column	Question	Code
1	Card Number	Code 3
2-3	Company Number	Code 2 digit numbe
4-10	Sales (000) Buyer	Code 7 digit numbe
11-16	# Employees Buyer	Code 6 digit numbe
17-22	Sales (000) Seller	Code 6 digit numbe
23	# of SIC Codes	Code 1 digit numbe
24	Type of Acquisition	Code 1 digit numbe 1. Related 2. Unrelated 3. Can't determine
25	#SIC major categories	Code 1 digit numbe

CARD 4

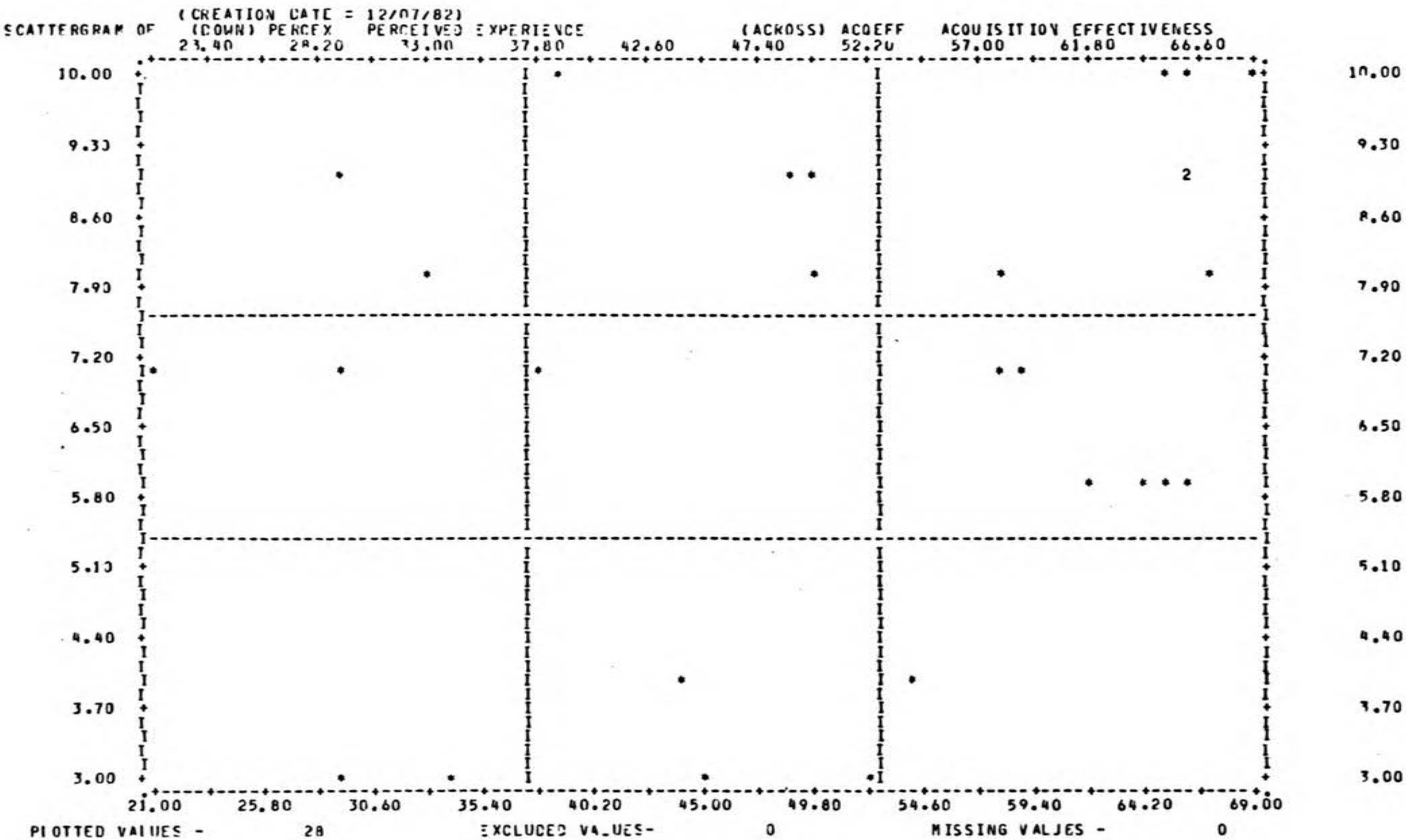
Column	Question	Code
1	Card Number	Code 4
2-3	Company Number	Code 2 digit number
4-5	Amount of Analytical Activity	Code 2 digit number
6-7	Amount of Participation in Decision Making	Code 2 digit number
8-9	Amount of Intensive Search	Code 2 digit number
10-11	Amount of CEO Involvement	Code 2 digit number
12-13	Amount of Integration Activity	Code 2 digit number
14-20	Total Revenue (000) for 1979 (from annual report)	Code 7 digit number
21-24	Return on Assets 1979	Code 4 digit number
25-28	Return on Assets 1981	Code 4 digit number
29	Segmented Data	Code 1 digit number 1. yes 2. no
30	Type of Acquisition (determined by Barbara Pfitzner)	Code 1 digit number 1. related 2. unrelated
31	Relative Segment Size Problem	Code 1 digit number 1. yes 2. no 3. maybe

APPENDIX 4 -- SCATTERGRAMS

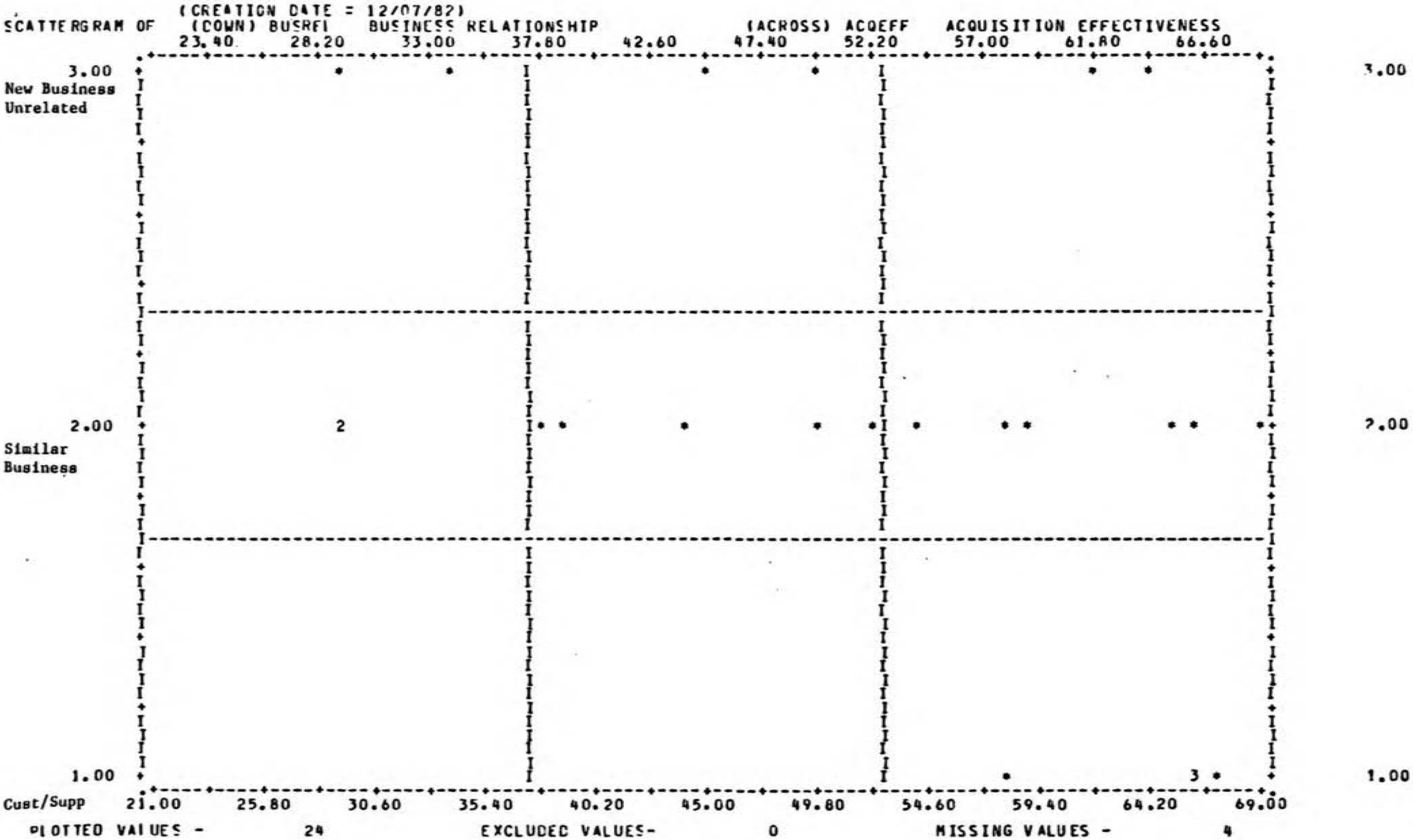
Scattergram Number of Acquisitions vs. Effectiveness



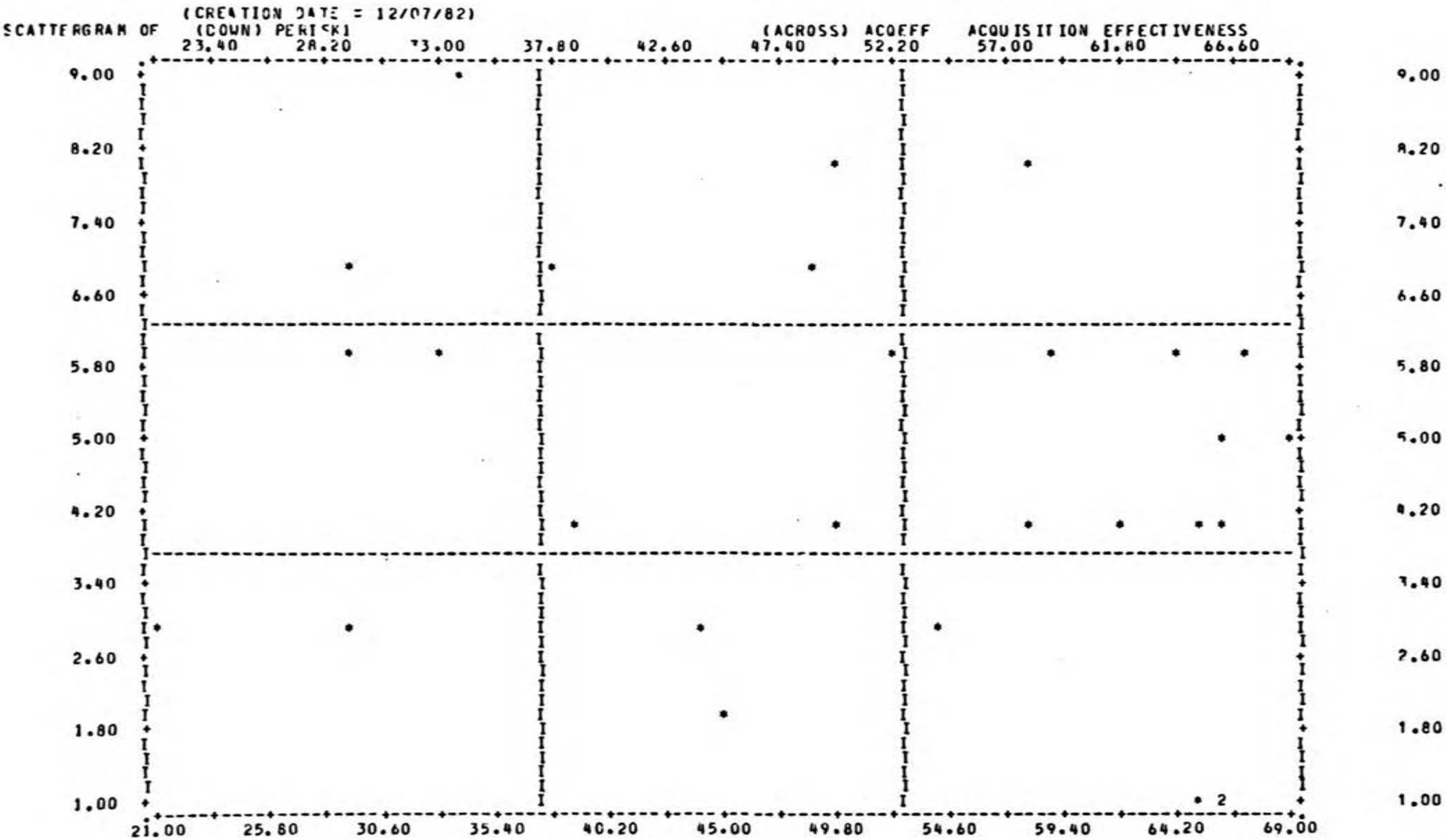
Scattergram Perceived Experience vs. Effectiveness



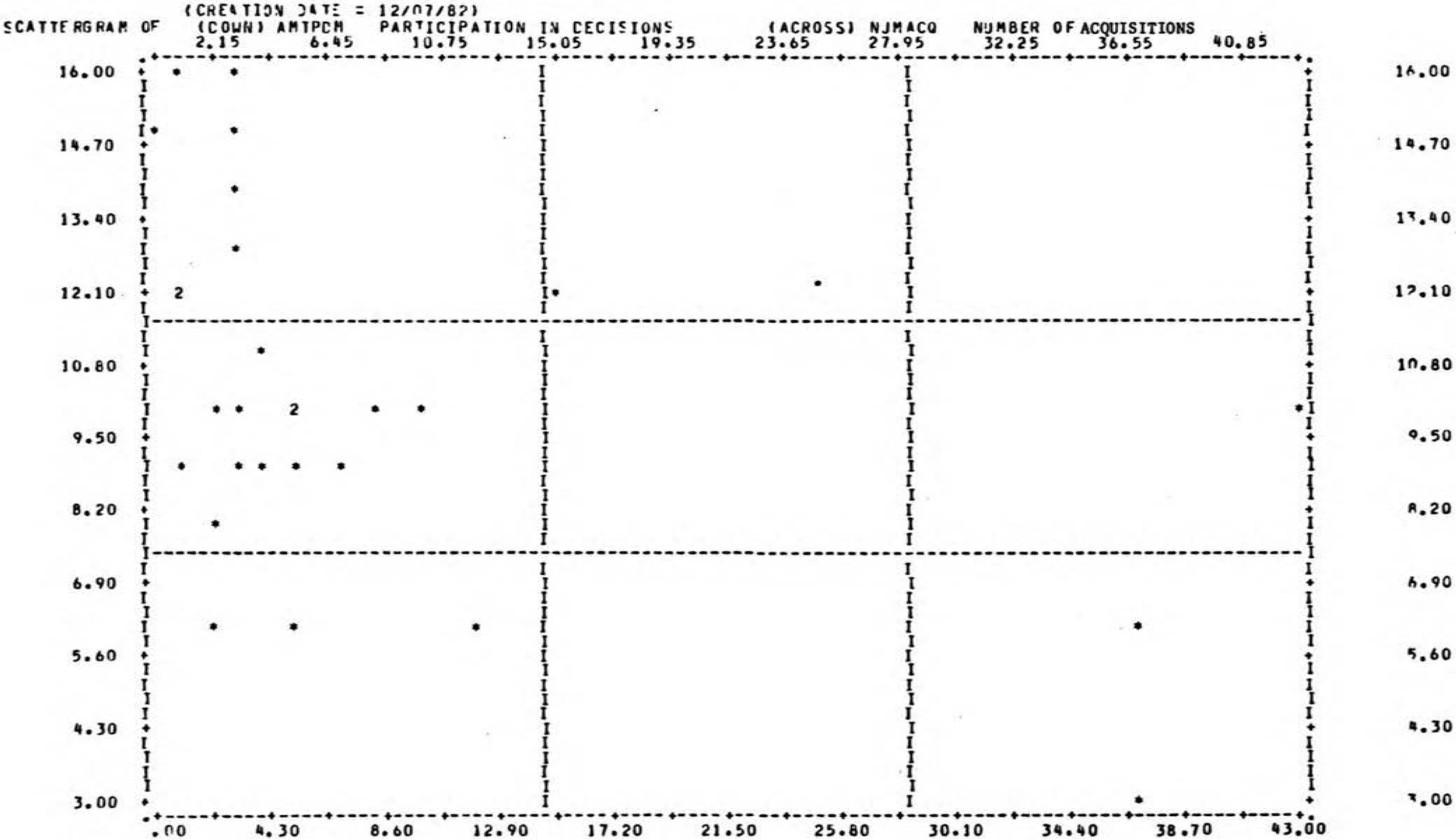
Scattergram Business Relationship vs. Effectiveness



Scattergram Perceived Risk vs. Effectiveness



Scattergram Number of Acquisitions vs Participation



TITLE OF THESIS ACQUIRING SMALL AND MEDIUM-SIZED COMPANIES: A STUDY OF CORPORATE DECISION BEHAVIOR

MAJOR PROFESSOR George P. Huber

MAJOR DEPARTMENT Business

MINOR(S) Distributed

NAME Daniel Joseph Power

PLACE AND DATE OF BIRTH Waterloo, Iowa February 9, 1950

COLLEGES AND UNIVERSITIES: YEARS ATTENDED AND DEGREES

C. W. Post College	1968-1971	
University of Iowa	1971-74	B.S.
University of Iowa	1975-77	M.A.
University of Wisconsin-Madison	1978-82	M.B.A. Ph.D.

MEMBERSHIPS IN LEARNED OR HONORARY SOCIETIES Sigma Xi

PUBLICATIONS Brief, A.P., Aldag, R. J., Darrow, A. L., and Power, D. J., Examination of responses of registered nurses to manifest needs Questionnaire. Psychological Reports, 1980, 46, 1233-1234.; Klasson, C. R. and Power, D. J., Data-based policy teaching and research. Proceedings of the Academy of Management, August 1977, 118-121.; Power, D. J. A criteria-based review of 14 generalized heuristic programs. Proceedings of the Midwest Academy of Management, April 1979, 278-285.; Power, D. J. and Huber, G. P., Elicitation of

(Continued)

DATE December 16, 1982

PUBLICATIONS (Continued): subjective probability: Integration of recent findings. Proceedings of the American Institute for Decision Sciences, October-November 1978, 39-41.; Power, D. J. and G. P. Huber, Guidelines for using key informants and retrospective reports in strategic management research. Proceedings of the American Institute for Decision Sciences, November, 1982.; Power, D. J. and Rose, G. L., Improving decision-making behavior using the Hewlett-Packard 2000/Access System. Proceedings of the American Institute for Decision Sciences, October, 1977, 118-119.; Power, D. J. and Zwerling, H. L., Designing management decision-aid programs. Proceedings American Institute for Decision Sciences, November, 1980.