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HOW IMPORTANT ARE STAKEHOLDER RELATIONSHIPS?

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ABSTRACT

The importance of organizational-stakeholder relationships has recently been of interest in the organizational studies literature. The relevance of this topic is even greater given the recent governance failures involving Enron, Tyco, and WorldCom. Indeed, an excessive emphasis on stockholders is blamed for the neglect of other legitimate stake-holder groups. We should acknowledge that the central focus of studying any organiza-tional relationship is the establishment, development, and maintenance of relationships between exchange partners (Morgan & Hunt, 1994). This study investigates the determinants of stakeholder relationship importance and the role it plays in determining whether relationships will continue. For managers, these results suggest that an organization's ability to develop and maintain strong relationships with their salient stakeholder groups improves the chance that relationships will continue.

INTRODUCTION

What determines the importance of stakeholder-organization relationships? The notion of "paying attention to key stakeholder relationships" (Freeman, 1999: 235) is and has been a major theme in the strategic management literature. In fact, superior stake-holder satisfaction is critical for successful companies in a hypercompetitive environment (D'Aveni, 1994). Research has begun to investigate empirically what determines the success or failure of relationships between exchange partners. This has been accom-plished by examining both the characteristics of the organization as well as the specific stakeholder groups and the nature of the interaction between them (Pfeffer, 1981; Jensen & Meckling, 1976; Morgan & Hunt, 1994; Williamson, 1975, 1985). An implicit as-sumption in much of the empirical and conceptual work is that developing and maintain-ing relationships are desirable goals for both the stakeholder and the organization (Dwyer, Schurr & Oh, 1987; Wilson, 1995). However, absent from much of the stake-holder management literature is a discussion of when relationships should be important.

This paper presents one part of an overall research stream on the relationships be-tween organizations and their stakeholders, the development and maintenance of these relationships, and the impact of these relationships on an organization's strategies when dealing with their stakeholder groups. This study specifically focuses on three stake-holder groups: customers/clients, employees and suppliers/distributors. Porter (1980) recognized the importance of these stakeholder groups when he formulated his "Five Forces" model of competition, which included the bargaining power

of customers and the bargaining power of suppliers. Due to the nature of the study, stockholders/owners were not included in this study. Stockholders are among the most important stakeholder groups. Collecting the type of data from this group needed for the study may have been problematic for several reasons. The nature of stockholder-organizational relationships can be very dynamic. A stockholder may buy and sell ownership in an organization within a period of minutes, thus making the measurement of the relationship with an organization almost impossible. Secondly, it may be very difficult to access information pertaining to a specific stockholder. Lastly, due to the nature of the relationship, any information gathered from a stockholder may not have been relevant to this study.

Knowing what variables contribute to the success of relationships with stake-holder groups could have a beneficial effect on a firm's strategic actions. Therefore, the goal of this research was to determine what variables contribute to the importance of the organization-stakeholder relationship. This research helps strategic managers decide if they should promote stakeholder relationship strategies as effective managerial tools for their organizations. This research will also aid managers in identifying to which stake-holders the firm should cater.

CORPORATE-STAKEHOLDER RELATIONSHIPS

Stakeholder theory (Donaldson & Preston 1995; Evans & Freeman 1988; Free-man, 1984) and empirical research (Clarkson 1995) indicate that companies do explicitly manage their relationships with different stakeholder groups. Donaldson & Preston (1995) point out that although this is descriptively true, companies appear to manage stakeholders for both instrumental (i.e., performance based) reasons and, at the core, normative reasons. Building on the work of others, Clarkson (1995) defines primary stakeholders as those "without whose continuing participation, the corporation cannot survive as a going concern," suggesting that these relationships are characterized by mutual interdependence. He includes here shareholders or owners, employees, customers, and suppliers, as well as government and communities. The "web of life" view (Capra 1995) envisions corporations as fundamentally relational, that is, as a "system of primary stakeholder groups, a complex set of relationships between and among interest groups with different rights, objectives, expectations and responsibilities" (Clarkson, 1995: 107).

In an attempt to acknowledge this ongoing nature of exchange interactions, Ford (1980) suggested that companies pursue relationships with other companies to obtain the benefits associated with reducing their costs or increasing their revenues. By entering into relationships, organizations hope to gain stakeholder satisfaction and loyalty while stakeholders look for quality (Evans & Laskin, 1994). Relationships, however, may also have some negative implications. Stakeholders may forego better exchange alternatives in the future because of their commitment and loyalty to a particular organization (Hang, Wilson, & Dant 1993). They may not be willing to give up the benefits associated with the relationship even if they could reduce operating costs by dealing with another organization. Also, if one of the exchange partners represents a major portion of the other's business, there may be a risk of overdependence due to a lack of diversification (Hang, Wilson, & Dant, 1993).

The purpose of this research was to determine when stakeholder relationships are important. We assessed relationship importance by asking stakeholders to rate the importance of holding a

stake in a particular organization. There are many dimensions of stakeholder-organization interactions that may play a role in determining when relation-ship strategies are important or appropriate. We used situational variables and inherent risk variables as the primary determinants of relationship importance. Situational vari-ables include favorability of the situation, type of product offering, amount of service, availability of substitutes, and frequency of contact between the organization and the stakeholder. Inherent risk is the degree of uncertainty that can occur between an organi-zation and its stakeholders (Bettman, 1973) such as financial risk, performance risk, and termination costs. All our constructs were derived from the extant literature.

METHOD

This research was conducted in three phases. The first phase consisted of personal interviews with members of top management teams. Since relationships between the organization and key stakeholder groups evolve over time, it was important to understand the development of these relationships. The purpose of this phase was to explore issues that are important to the stakeholder management process, to understand how the process works, and to confirm that the proposed conceptual framework addresses the relevant issues. Qualitative methods, such as interviews, are "highly appropriate in studying process because depicting process requires detailed description" (Patton, 1990: 5). Personal interviews were conducted with three panels for a total of sixteen members of top management groups. The first panel included representatives of the following areas: government, banking, brokerage, industrial equipment leasing, and a national stock exchange. The second panel consisted of representatives of the investment, publications, logistics, banking, petrochemicals, and pharmaceuticals industries. The third panel consisted of representatives of a non-profit organization and a pharmaceutical firm. The respondents represented the companies that agreed to forward copies of the survey to the key stakeholder groups identified in this study. These organizations provided lists of key customer groups, key suppliers/distributors, and employees, and we randomly chose survey respondents from that list.

The second phase of this research consisted of a survey sent to organizational stakeholders, specifically customers, employees, and suppliers/distributors. The purpose of this phase was to generate responses to the survey items used to test the major hy-potheses in this study. In the survey, respondents were asked to describe the relationships they have with an organization in which they have a stake using relationship importance as an a priori distinction. The intent was to have each stakeholder rate their relationship with the organization in which they have a stake that varies in importance. For example, a stakeholder may have been asked to describe the relationship they have with an organization that they have a good relationship with and with whom it is important to have a relationship or an organization that they do not have a good relationship with and with whom it is not very important to have a relationship.

A standardized, open-ended interview approach was used. With this type of ap-proach, each person was asked essentially the same questions (Patton, 1990) which were written in advance in exactly the way they were asked during the interview. Standardized, open-ended interviews are systematic and help ensure that the interviewer's time is used efficiently. Using standardized questions also made data analysis easier and added credibility to the responses because questions were evaluated prior to the actual inter-views. However, to allow for individual circumstances that

may not be addressed by standardized questions, respondents were also given the opportunity to raise additional issues that they considered to be important in relationships with their stakeholders. Most of the questions were experience/behavior type questions that asked the respondent to describe their activities in the present or in the past (Patton 1990). These questions were designed to explore the relationships the members of the top management groups have with their stakeholders and to generate items for the survey instrument.

The purpose of the survey was to determine what is important in the relationship from the stakeholder's perspective, and to determine their variability across situations. Four versions of the survey were developed. A packet of fifteen versions of each survey was sent to each member of the top management group that had agreed to participate in the study. One version of the study was then randomly distributed to members of the key stakeholder groups identified in this study. Stakeholders were surveyed about their perceptions of the relationships they have with an organization in which they have a stake, not necessarily the same organization in which the member of the top management group and the respondent held a stake. This was performed to reduce the threat of de-mand characteristics in completing the survey that would affect the validity of the results. The survey contained items measuring each of the constructs in the conceptual frame-work (situational variables and inherent risk variables).

Each survey was accompanied by a cover letter that addressed the primary objectives of the research. In addition to explaining the purpose of the survey, the letter explained how each stakeholder was to be selected to participate in this study and empha-sized how important their response was to be to the study. Respondents were told that their responses would remain confidential. The cover letter also emphasized that the survey was not difficult to complete. Respondents were given a postage paid envelope to return to the researcher to insure that the study would not cost the respondent anything but their time, and to expedite a speedy return of the completed survey.

The third phase involved analyzing the results of the surveys using statistical methods to test the significance of each of the proposed determinants of stakeholder relationship importance. This paper reports the results generated by the survey.

FINDINGS AND FUTURE DIRECTIONS

As noted above, prior to sending out the mail survey personal in-depth interviews were conducted with key members of top management groups (Vice-President and higher). The objective of these interviews was to make sure as many relevant variables as possible were included in the mail survey and also to test the reliability and appropriate-ness of the survey instrument. Respondents were asked a set of similar questions. Three sets of interviews were conducted face-to-face in a conference room at the author's place of employment. Interviewees represented different types and sizes of organizations. Despite the differences in type and size of organizations, many common themes emerged.

The personal interview suggested that quality of the offering and service were es-sential for stakeholders making decisions about whether to continue a relationship. Trust between the organization and the stakeholder was also deemed important for these types of decisions. The members of the top management groups felt that stakeholders want to establish long term

relationships with organizations to minimize the amount of time they spend negotiating. However, long-term relationships do not mean that the organization can become complacent. The members of the top management groups that were inter-viewed seemed to feel that the consumer/client groups strive to obtain the best offerings at the best prices with the best advice that the organizations in which they held a stake can provide. The members of the top management groups also felt that the employee group wanted to be treated fairly and equitably. Lastly, the members of the top manage-ment group felt that the supplier distributor group expected honesty and fairness in their negotiations. This implies that organizations need to maintain high levels of trust and honesty even if they have long-term relationships with their stakeholders.

Nineteen packets containing fifteen copies of each of the four versions of the sur-vey were distributed to members of the top management teams who had participated in the interview portion of the study. The version a potential respondent received was randomly determined. A respondent only received one version of the survey. The four versions of the survey were A) good relationship, relationship important, B) good relationship, relationship not important, C) poor relationship, relationship important and D) poor relationship and relationship not important. Each survey was accompanied by a cover letter signed by the author that explained the purpose of the research and how the surveys were to be distributed.

A total sample of 496 surveys was received, representing a 44% overall response rate. The highest response rate for the separate versions was for Version B (52%) that asked respondents to describe a relationship that was good but with whom it was not important to have a relationship. The lowest response rate was for Version C (36%) which asked respondents to describe a relationship that was poor but with whom it was important to maintain a relationship. Interestingly, the response rate for Version D is only 10% higher than the response rate for Version C. The surveys were returned anony-mously and therefore it is hard to determine whether there is a difference between these who responded and those who did not.

We found that the relationship with a stakeholder that requires service with the of-fering is important. Hence, providing good service should increase the likelihood that an exchange relationship will continue in the future. Another important area of consideration for managers is the availability of alternatives. Customers/clients who believed they had more options available to them rated their relationships as less important. Managers need to monitor their competition in order to keep customers and remain competitive. If organizations can develop trust and keep their stakeholders satisfied, they will be less likely to search for other alternatives. Surprisingly, risk and termination costs were not deemed influential in determining relationship importance. When stakeholders invest a large amount of their or their company's resources (i.e., financial risk is high) one would expect that the relationship would be more important.

This study focused on the issues related to only four stakeholder groups' relation-ships. It may seem that many of the issues addressed in this study are based on the common knowledge that organizations need to have good relationships with their salient stakeholder groups. However, few studies have attempted to examine not only what determines the importance of organization-stakeholder relationships, but also when they should be important. This study addresses those questions. The presentation will present the results in greater depth and discuss the implications for strategy and managers.

REFERENCES

- Bettman, J.R. (1973). Perceived risk and its components: A model and empirical test. *Journal of Marketing Research*, 10, 185-90.
- Capra, F. (1995). The web of life. New York: Anchor Books.
- Clarkson, M.B.E. (1995). A stakeholder framework for analyzing and evaluating corpo-rate social performance. *Academy of Management Review, 20*, 65-91.
- D'Aveni, R.A. (1994). *Hypercompetition: Managing the dynamics of strategic maneuvering*. New York: The Free Press. Donaldson, T. & Preston, L. (1995). The stakeholder theory of the modern corporation: Concepts, evidence and implications. *Academy of Management Review* 20, 65-91.
- Dwyer, R.F., Schurr, P.H. & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing*, 51, 11-27.
- Evans, J.R. & Laskin, R.L. (1994). The relationship marketing process: A conceptualization and application. *Industrial Marketing Management*, 23, 438-452.
- Evans, W.M. & Freeman, R.E. (1988). A stakeholder theory of the modern corporation: Kantian capitalism. In *Ethical theory and business*, T. Beauchamp & N. Bowie (Eds.) Englewood Cliffs, N.J.: Prentice Hall.
- Ford, D. (1980). The development of buyer-seller relationships in industrial markets. *European Journal of Marketing*, 14, 339-353.
- Freeman, R.E. (1984). Strategic management: A stakeholder approach. New York: Basic Books.
- Freeman, R.E. (1999). Divergent stakeholder theory. Academy of Management Review, 24, 233-236.
- Hang, S.L., Wilson, D.T. & Dant, S.P. (1993). Buyer-supplier relationships today. *Industrial Marketing Management*, 22, 331-338.
- Jensen, M.C. & Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, *3*, 305-360.
- Morgan, R.M. & Hunt, S.D. (1994). The commitment trust theory of relationship marketing. *Journal of Marketing*, 58, 20-38.
- Patton, M.Q. (1990). Qualitative evaluation and research methods. Newbury Park, CA: Sage Publications.
- Pfeffer, J. (1981). Power in organizations. Marshfield, MA: Pitman Publishing.
- Porter, M.E. (1980). Competitive strategy. New York: Free Press.
- Williamson, O. (1975). Markets and hierarchies. New York: Free Press.
- Wilson, D.T. (1995). An integrated model of buyer-seller relationships. *Journal of the Academy of Marketing Science*, 23, 335-345.

Key Words: Stakeholder theory; Customer/client relationships; Employee relationships; Supplier/distributor relationships

MARKET'S 'MUST' IMPERATIVES AND SURVEILLANCE: POSITIONING AN ORGANIZATION FOR THE BEST FIT IN THE MARKETPLACE

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ABSTRACT

This article is designed to build the stage in developing an organization's ability to respond to its business environment.

This article brings forth the basic imperatives which influence the decision making process of organizations operating in their industries in a national setting. It articulates the complexity and the interpretation of these relationships in deciding the organization's optimal position in the market. The role of the whistle blowers and that of the stakeholders is brought into perspective in reference to their influence. Emphasis is directed to the organization's ability to understand the signals of its business environment. It takes into consideration the cycle of the economy, government, market intelligence mechanism in interpreting the market as well the position and reaction of risk takers versus conservative players in the market.

Organizations position themselves in an industry to obtain the best possible outcome under the circumstances they operate in.

The optimal position in the market depends on the interpretation of Market Imperative via the Market Intelligence, Stakeholders influence, Market Politics, and the Ratchet Effect. It is represented as a defined boundary area within the Market Imperative.

The optimal position floats in the area between the angles of the Market Imperative and the Economic Ratchet. Its position depends on the stakeholder involvement/influence on the industry. The risk the organization is taking in operating in the market is represented as the distance from the system scale; the closer to the center the lower the risk, the higher the risk the closer to the edge of the Market Imperative.

The moment the Economic Ratchet changes, the angle of the Imperative shifts. This makes the organization to get exposed outside of the realm of the Market Imperative taking significant risks to operate. The further out of the Market Imperative the organization operates the higher the likelihood of unlawful behavior. This is where the whistle blower starts to appear exposing the organization of questionable practices.

Organizations push the limits of the Market Imperative to get higher/better results by, at times, taking significant risks. The article introduces the ways that organizations are poised to respond to impending changes and the assessment needed to proact.

STRATEGIC PLANNING AND THE AIRLINE INDUSTRY: WILL A LOW-COST STRATEGY YIELD A LONG-TERM COMPETITIVE ADVANTAGE?

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ABSTRACT

Historically, airline strategic planners have viewed growth as their overriding objective as they have considered changes in customer markets and operations since WWII. This growth has been largely accomplished through an industry focus on differentiation with the exception of a few noteworthy carriers that have used a low-cost focus to achieve market growth. Given the dynamic nature of the industry's operating environment since 9/11, emphasis on strategic planning is critically important today. Specifically, this paper questions whether using low cost as a strategic focus to achieve growth has moved beyond being considered an exception to now being considered the norm in this new competitive environment. To answer this question, the industry's modern era financial cycles and changing market forces were analyzed. From this analysis, concerns about the external threats of service substitutes and the heightened awareness of new information technology applications are reported. Documented support for the generic low-cost strategy is summarized, and conclusions are drawn as to the long-term attractiveness of this strategic option.

PERFORMANCE IN THE CONTEMPORARY CONGLOMERATE

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ABSTRACT

The performance of conglomerates or multi-industry firms, corporations composed of unrelated businesses, presents a paradox to researchers in strategic management. On one hand, the preponderance of the empirical research, beginning with Richard Rumelt's ground-breaking study, Strategy, Structure and Economic Performance, and including dozens of follow-up papers, has found a negative relationship between unrelated diversification and firm performance. On the other hand, a number of multi-industry firms, perhaps General Electric and 3M first among them, are frequently held out as examples of the best-managed companies in the world. We fill a gap in our knowledge of contemporary conglomerates by assessing their performance over a twelve-year period. The burdens of size, complexity and bureaucracy in long-lived multi-industry firms were anticipated to result in below-average performance. Instead, our findings clearly identified a group of firms that out-performed performance referents like Business Week's Global 1000 medians, means, top-quartile measures, and the mean of the market-to-book ratio. Most surprisingly, nearly all of the successful firms are based either in the United States or in Great Britain, strongly suggesting that select organizations are able to meet and exceed the undeniable managerial demands of the conglomerate firm, rather than rely on protected or lax markets.

STRATEGIC MANAGEMENT: DOES PERSONALITY MAKE A DIFFERENCE?

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ABSTRACT

The purpose of this paper is to clarify this question: Is there a strong enough body of evidence to establish whether there is any relationship between personality characteristics of senior executives and strategic decision-making? A related question is: Do senior executives' personalities differ significantly from other people? To help answer the second question, a comparative study was conducted using undergraduate business students and senior level executives. Since most business schools accredited by A.A.C.S.B. require some kind of integrating "Capstone" experience in which students are expected to act like senior strategy managers, we think it is important to answer the question. Are business school students' personalities like senior executives'? And vice versa? Since most theorists assume that personality is a relatively stable set of characteristics, then can students change their personalities? Should they change them if their personalities are different from senior executives?

Survey instruments were developed to capture salient personality characteristics. Nineteen questions incorporate attitudes toward work ethic, mastery, and competitiveness and ten items capture the individual's locus of control. Demographic information on age and gender was also collected. We surveyed 136 respondents on achievement motivation and locus of control. The sample includes 69 undergraduate business students at two A.A.C.S.B. universities in the Southeast U.S.A. Rather than use adult masters students, we choose to survey 67 senior managers of credit unions from across the U.S.A. All of the managers in our survey were participating in the Southeast Credit Union School sponsored by the University of Georgia and the credit union leagues of the seven states in the Southeast U.S.A.

Four subscales were developed from the data. Student scores and manager scores are reported on scales for locus of control, work ethic, mastery, and competitiveness. Cronbach alpha was run on each subscale to determine the reliability of the instruments used. The results were somewhat low but still acceptable for the Locus of Control scale and the Mastery scale with alpha equal to 0.5245 and 0.5123 respectively. The results from the Work Ethic and Competitiveness scales evidenced strong reliability with alpha equal to 0.7751 and 0.8031 respectively. A series of F tests are performed to identify significant differences on the scales as well as individual items.

The literature provides extensive evidence of the importance of locus of control for strategic management. An internal locus of control is an important identifying characteristic for managers. These individuals demonstrate more innovation, leadership, and long range planning. Our survey analysis also documents that senior managers differ from other individuals in terms of locus of control, as well as, other achievement related motives.

DISAGGREGATING THE PERFORMANCE OUTCOMES OF TOTAL QUALITY ENVIRONMENTAL MANAGEMENT (TQEM): AN EMPIRICAL EXPLORATION TESTING A RESOURCE-BASED MODEL

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ABSTRACT

Total Quality Environmental Management (TQEM) has been defined as the practice of applying Total Quality Management (TQM) practices to an organization's environmental effort. TQEM is therefore closely tied with the firm's primary functions and is directly dependent on a firm's competencies. As resource-based theory supports, disaggregating the performance outcomes of internal strategic assets enables identification of the sources of competitive disadvantage and advantage. The contribution of this study was the test of an exploratory, resource-based model linking resources, organizationally-embedded TQEM, and competitive advantage.

This study collected survey data from corporations in 15 manufacturing industries and a sample of 143 managers from corporate headquarters and manufacturing plants provided an overall response rate of 27%. Applying moderated, stepwise regression, the majority of hypothesized main effects were supported, but the hypothesized moderated relationships were not supported. The results supported the core theoretical framework which linked the exogenous variable TQEM program implementation with the interim performance outcome of environmental performance. Environmental performance was then successfully linked with the creation of strategic value in the form of protection against competitive threats and exploitation of competitive opportunities, and with the subsequent common proxy for competitive advantage—financial performance.

INTRODUCTION

The resource-based view (RBV) of competitive advantage continues to receive broad interest from strategic management researchers as a complementary theoretical framework to the Structure-Conduct-Performance framework from I/O economics (Makhija, 2003). However, as outlined by Priem and Butler (2001), much work still needs to be done before the full theoretical contributions and limitations of the RBV are demonstrated. In particular, disaggregating the internal performance outcomes and relationships of internal strategic assets to sources of competitive

disadvantage and advantage has been an area of increasing attention (Ray, Barney, & Muhanna, 2004) in order to address the criticism of 'unobserved variables' in much of RBV research (Godfrey & Hill, 1995). To this end, we sought to explore an organization-wide business process, total quality environmental management (TQEM), that is part of a portfolio of voluntary environmental initiatives manufacturing firms have adopted to provide the greatest operational discretion in efficiently and systematically improving both operational and environmental performance.

BODY OF THE MANUSCRIPT

By the mid-1990's, about 75% of large firms in the US and UK claimed to have implemented Total Quality Management (TQM) initiatives (Edwards, Collinson, & Rees, 1998). Preliminary interviews in 1997 by the authors with division managers at a dozen US corporations supported this view. TQEM has been defined as "the practice of applying Total Quality Management (TQM) practices to an organization's environmental efforts" (p. viii, Willig, 1994). In turn, as the organizational process upon which TQEM relies, TQM has been defined as an integrative management approach characterized by the principles of customer focus, continuous improvement, and teamwork (Dean & Bowen, 1994). TQM can be identified by its common practices of: 1) Direct involvement of senior managers. 2) Communication of the TQM philosophy. 3) Increased training based on TQM principles. 4) Closer customer and supplier relationships. 5) Orientation towards process improvement, and 6) Use of heuristics and scientific methods to identify improvement opportunities (Powell, 1995). Furthermore, the central process of ongoing self-study (i.e., organizational learning) results in unique organizational problem-solving capabilities grounded in each firm's history that provides flexibility while inhibiting direct imitation by other firms.

It is this organization-wide implementation of TQEM that provides the vehicle for unbundling the interim performance outcomes of organizational processes and a better understanding of how internal resources may eventually combine to provide a competitive advantage in the form of greater that average industry financial performance. TQEM is a business process by which a manufacturing firm's strategic assets can be combined with organizational capabilities to produce an increase in production efficiency, a reduction in environmental externalities, and contribute to strategic value through enhancing a cost or quality differentiation advantage. The degree to which a firm successfully integrates TQEM processes will influence a wide array of functional outcomes and these, as well as financial performance, are the dependent variables we explored with this study.

To test a resource-based framework of TQEM, a review of the literature was conducted and the theoretical model in Figure 1 was developed. Russo & Fouts (1997) found that knowledge-based resources like TQEM can lead to improvements in environmental performance. Hence, Hypothesis 1 predicts a positive relationship between TQEM and improved environmental performance. Klassen & Whybark (1999) conducted a study of manufacturing plants in the furniture industry and found that pollution prevention practices and environmental management systems contributed to enhancements in environmental performance. In similar fashion, we developed a measure of environmental performance improvement capabilities that where expected to strengthen the relationship between the TQEM process and environmental performance. This was the basis for the

moderated relationship represented in Hypothesis 2. Clelland, Dean, & Douglas (2000) found that reduced pollution from 250 manufacturing firms resulted in a significant cost advantage for these Thus in Hypothesis 3, we hypothesized that improvements in environmental performance can provide strategic value for the firm by enabling it to either exploit a cost advantage or defend against cost pressures. Furthermore, we anticipated that the greater an organization's systematic support for environmental performance goals, the stronger would be the relationship between environmental performance and the creation of strategic value such as a cost advantage. This is presented in Hypothesis 4 as a moderated relationship. Klassen & McLaughlin (1996) also found a significant relationship between environmental performance awards and positive stock valuation supporting our Hypothesis 5 that improvements in environmental performance will lead to higher financial performance. Relatedly, resource-based theory argues that rareness of a strategic asset among competitors, the more likely it will contribute to a competitive advantage (Barney, 2001). If this strategic asset primarily contributed to improving environmental performance such as TQEM, this suggests that the rarer TQEM is among competitors, the greater ability of a firm to exploit the relationship between environmental performance and competitive advantage. Thus, Hypothesis 6 posits that TQEM rareness among competitors will strengthen the relationship between environmental performance and competitive advantage as represented by superior financial performance.

To obtain primary data on the outcomes of TQEM implementation, we developed, pilot tested, and subsequently mailed out two surveys to manufacturing firms in 15 industries (2-Digit SIC) in early 1998. 260 surveys were mailed to managers responsible for environmental management at corporate headquarters and 266 randomly selected plant managers (n = 73 respondents) in a 10% sampling of manufacturing facility in the same corporations (n = 70 respondents). As applied in previous studies (e.g., Douglas & Judge, 2001), a one-way analysis of variance was conducted on the items used in this study and fewer than 8% had significantly different responses between the two groups of respondents, so the data from the two groups were combined for a total of 143 surveys with an overall response rate of 27%. A wide array of manufacturing industries were represented in the sample, but 72% of the respondents represented corporations in the chemical, petroleum, primary metals, machinery, transportation equipment, and measurement instrument industries.

We subjected the items in our survey to factor analysis (principle components, varimax rotation) to determine if we had reliable measures of our key variables. Eight factors emerged after some items were dropped for low factor loadings. These factors and their items were: (1) Competitive Advantage – three items addressing earnings growth, revenue growth, and return on assets (α = .83). (2) Strategic Value – three items addressing exploitation of market opportunities, neutralizing threats, and adding product value (α = .87). (3) Regulatory Environmental Performance – three items addressing environmental accident reduction, pollution reduction, and notice-of-violation reduction (α = .73). (4) Efficient Environmental Performance – three items addressing energy conservation, materials use efficiency, and product use impact reduction (α = .69). (5) TQEM – seven items addressing environmental quality training, continuous environmental performance improvement, employee awareness, employee responsibility, environmental performance monitoring, use of statistical evaluation methods, and top management support (α = .70). (6) Environmental Performance Improvement Capabilities – four items addressing improving

product technology, improving process technology, improving employee practices, and improving environmental management systems (α = .58). (7) Organizational Support – four items addressing formal structural support, management policy support, compensation systems support, and information systems support (α = .84). (8) TQEM Rareness – two items addressing degree of competitor imitation and competitor implementation (α = .71). We also collected the control variable measures firm size (number of employees) and industry type (2-Digit SIC) from Compact Disclosure. Descriptive statistics and correlations on all variables are displayed in Table 1.

A series of stepwise, moderated regression analyses were conducted to test the hypotheses and the results are displayed in Table 2. As can be seen, the main effects in Hypotheses 1, 3 and 5 were statistically significant, but the moderated relationships in Hypotheses 2, 4, and 6 were not supported. Examination of the collinearity diagnostics and correlations in Table 1 suggests that most of the moderator variables did not sufficiently contribute independently to the hypothesized moderated relationships. In addition, although not hypothesized, the organizational support variable was found to be significantly related to the interim outcome of strategic value.

The results, while mixed, provide further support for the multiple sources and paths to competitive advantage within each organization. Different activities, routines, and business practices are created by the portfolio of internal strategic assets a firm combines. The same set of resources and capabilities can be combined to simultaneously produce interim performance outcomes that support competitive advantage and other interim performance outcomes that may erode competitive advantage. This study provides evidence that simply observing or measuring a relationship between strategic assets and competitive advantage does not provide an understanding of "how" the internal selection and planning for certain combinations of activities, routines, and practices by managers and employees enable core competencies to become distinctive competencies.

In addition to making a contribution to the resource-based literature, this exploratory study also provided a framework in which to understand how the ecologically-related performance of a firm may or may not support its financial objectives. We have shown that the same set of environmental resources and practices can simultaneously support environmental performance, strategic value creation, and competitive advantage.

TABLES

Sa	ample S	Size, Mea	ns. Star	ndard D	TABLE Deviation	_	orrelatio	ns of All	Variable	es		
Variable	N	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Competitive Advantage (FINPERF)	65	9.73	2.62									
2. Strategic Value (STRATVAL)	139	3.02	.98	.23								
3. Regulatory Env. Perf. (EPREG)	139	10.71	2 .80	.31*	.24**							
4. Efficiency Env. Perf. (EPEFF)	135	7.81	2.73	.32*	.35**	.36**						
5. Tot. Qual. Env. Man. (TQEM)	139	3.52	.79	.22	.29**	.49**	.29**					
6. Env. Perf. Imp. Capabilities (EPI)	142	3.57	.79	.16	.36**	.33**	.31**	.68**				
7. Org. Support of TQEM (ORGSUPP)	138	3.52	.90	.21	.47**	.36**	.32**	.67**	.63**			
8. TQEM Rareness (RARE)	139	2.84	.82	13	.35**	.10	.27**	.17*	.21*	.23**		
9. Firm Size (SIZE)	71	9.56	1.36	.00	.24*	.23	.16	.26*	.33**	.17	.08	
10.Industry (2-Digit SIC) (IND)	142	30.97	4.74	.00	.12	04	.08	13	.04	06	.13	.33**

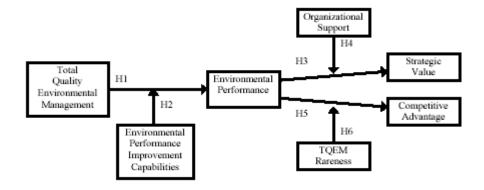
Table 2 Summary Results of Stepwise, Moderated Regression Analyses									
Independent Variables	EPRE G	EPEF F	STRATVA L	STRATVA L	FINPER F	FINPER F			
TQEM	.49**	.29*							
EPI	00	.20							
TQEM x EPI	.09	.457 a							
EPREG			.24*						
ORGSUPP			.50**						
EPREG x ORGSUPP			.61 ^a						
EPEFF				.35**					

Independent Variables	EPRE G	EPEF F	STRATVA L	STRATVA L	FINPER F	FINPER F
ORGSUPP		-		.46**		-
EPEFF x ORGSUPP				.74 ^a		
EPREG					.31*	
RARE					13	
EPREG x RARE					10	
\EPEFF		-				.32*
RARE						20
EPEFF x RARE						25
SIZE	.12	.09	.15	.15	.12	.09
IND	.03	.12	.15	.15	b	b
Adjusted R ²	.224	.072	.253	.287	.083	.087
F-test for Model	20.37*	6.22*	23.91**	27.08**	6.42*	6.52*
df	67	67	66	66	60	58

Standardized regression coefficients for the full model are shown.

FIGURES

Figure 1. Total Quality Environmental Management Model: Hypotheses to be Tested



^a Inflated due to significant collinearity between component variables. See Table 1.

^b 2-Digit SIC was unavailable for this sample of surveys.

^{*} p<.05

^{** &}lt;u>p<.01</u>

REFERENCES

- Clelland, I., T. Dean, & T. Douglas (2000). Stepping towards sustainable business: An evaluation of waste minimization practices in US manufacturing. *Interfaces*, 30(3): 107-124.
- Dean, J., Jr. & D. Bowen (1994). Management theory and total quality: Improving research and practice through theory development. *Academy of Management Review*, 19(3), 392-418.
- Edwards, P., M. Collinson, & C. Rees (1998). The determinants of employee responses to total quality management: Six case studies. *Organization Studies*, 19(3), 449-475.
- Godfrey, P., & C. Hill (1995). The problem of unobservables in strategic management research. *Strategic Management Journal*, vol. 16, pp. 519-533.
- Judge, W. & T. Douglas (1998). Performance implications of incorporating natural environmental issues into the strategic planning process: An empirical assessment. *Journal of Management Studies*, 35(2), 241-262.
- Klassen, R. & C. McLaughlin (1996). The impact of environmental management on firm performance. *Management Science*, 42, 1199-1214.
- Klassen, R. & D. Whybark (1999). The impact of environmental technologies on manufacturing performance. *Academy of Management Journal*, 42(6): 599-615.
- Makhija, M. (2003). Comparing the resource-based view and market-based views of the firm: Empirical evidence from Czech privatization. *Strategic Management Journal*, 24, 433-451.
- Priem, R. & J. Butler (2001). Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review*, 26: 22-40.
- Ray, G., J. Barney, & W. Muhanna (2004). Capabilities, business processes, and competitive advantage: Choosing the dependent variable in empirical tests of the resource-based view. *Strategic Management Journal*, 25(1), 23-37.
- Russo, M. & P. Fouts (1997). A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, 40(3): 534-559.
- Willig, J. (1994). Environmental TQM, NY: McGraw-Hill.

DIFFERENTIATING PURCHASING PRACTICES OF FIRMS BASED ON INFORMATION TECHNOLOGY USE

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ABSTRACT

Purchasing has recently taken on a more prominent organizational role and its focus has shifted from strictly operational to strategic. A significant impact on the purchasing function has been the growth of information technology (IT), which has become an essential enabler of numerous purchasing activities. The purpose of this study is to profile differences in the purchasing function of firms based on their level of information technology (IT) use. Our results reveal significant differences between firms identified as having high IT usage, compared to firms with low and medium use of IT. Purchasing is found to have a significantly higher role in strategic planning and have a higher strategic focus in high IT firms. By contrast, low IT firms appear to be significantly lagging on a number of dimensions, such as use of electronic purchasing and supplier management practices. Most significantly, high technology use is found to have an impact on aggregate company performance, with a majority of high IT firms reporting significantly higher increases in global market share compared to less advanced IT firms.

Keywords: Purchasing; Information technology; Firm performance

STRATEGIC PLANNING: A PROCESS FOR MANAGING CHANGE

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ABSTRACT

A system is a set of interrelated components, interdependent parts that interact in a regular way to contribute to a common purpose. Organizations are open systems in that they are in constant interaction with their environment. Interaction includes influencing, being influenced by, and adapting to the environment. In today's business world interaction with the environment is creating powerful external forces that are generating challenges for leaders: technology, globalization, turbulent economies, workforce diversity, restructuring, and competition. Managers are increasingly challenged to adapt to and manage the constant, persistent changes emanating from these external sources. How can they find stability in such a sea of change, yet create the flexibility necessary to respond to this turbulent environment? Many feel ill equipped to do so. A review of management literature suggests that the answer may lie in revitalizing the strategic planning process. Mangers must be able to forecast uncertainty and develop plans that will allow them to manage the resultant change. To be successful, managers need to meet the turbulence head on – adjust to and manage the change. The strategic planning process, (vision, mission, strategy, and goals) provides leaders with a framework to manage change.

Leaders must anticipate change and establish a vision for their organizations. A vision delineates what and where the organization will be in the next five years (models range from three to ten years). Organizations need a mission statement that clearly articulates the organization's purpose, its reason for being. The mission statement should explain what the organization does, how it does it and why. After determining where the organization is now and where it is going, its leaders must develop a strategy, a plan, which will guide the organization in accomplishing its mission and achieving its vision. The strategy includes multi-level goals: strategic, tactical, and operational. By involving its members in the goal setting process, the organization develops the capability to identify, and more importantly, project changes.

This presentation will provide a framework for a strategic planning process and will discuss how mangers can apply the strategic planning process as a method by which they can plan for, adjust to, and manage the change.

THE CONTRIBUTION OF FIRM-SPECIFIC FACTORS: THEORY DEVELOPMENT OF THE RATIO ADJUSTMENT PROCESS

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ABSTRACT

Prior research (Lev, 1969) examining the process of ratio adjustment has indicated that firms adjust their financial ratios to industry norms (targets). In measuring the rate of ratio adjustment, Lee and Wu (1988) indicate that the adjustment lag can be decomposed into two components--lambda (ë), measuring the speed of adjustment to the target, and delta (ä), measuring the speed of expectation adjustment. This paper will first describe and explain these two components of the ratio adjustment process. Subsequently, a discussion of the firm-specific factors and the anticipated relationship of each of these factors to ë and ä will begin. Following the theory discussion presenting each firm-specific factor and its proposed relation to the two ratio adjustment components, the hypothesis to be tested will be presented.

INTRODUCTION

The partial adjustment adaptive expectation (PAAE) model is used in this paper to reexamine the ratio adjustment process and to assess the contribution of firm-specific factors to the rate of adjustment to the target (ë) and to the rate of expectation adjustment (ä). Only the aspects of the model pertinent to theory development are discussed in this paper.

The PAAE model is a combination of two separate and distinct models: the partial adjustment (PA) model and the adaptive expectations (AE) model. In order to describe and explain the basic components for measuring ratio adjustment (ë and ä), it is essential to have an understanding of these two models and their theoretical underpinnings. Therefore, a brief description of each follows.

COMPONENTS OF THE PAAE MODEL

The partial adjustment model can be expressed as:

(1)
$$y_t - y_{t-1} = \lambda (y_t^* - y_{t-1}), \ 0 < \ddot{e} ? 1$$

where

```
y_t = a firm's financial ratio in period t,

y_{t-1} = a firm's financial ratio in period t - 1,

y_t^* = the target level of a particular ratio, and

\ddot{e} = the speed of adjustment coefficient
```

Equation (1) states that the current level of a financial ratio, y_t , will move only partially from its previous position, y_{t-1} , to the desired target level, y_t^* . The amount of adjustment between the two time periods, t and t - 1, is equal to $\lambda(y_t^* - y_{t-1})$, where the fraction t measures the speed of adjustment. The size of t reflects the limitations to the periodic adjustment of t caused by technological and institutional constraints. For equation (2), let (2) t t where t where t is the industry norm (mean/median) of a particular financial ratio at time t or t - 1, which determines the target. Behavioral equation (1) therefore postulates that when a firm observes a deviation between its financial ratio and the industry norm (target), it will adjust its ratio in the next period (i.e., t) so that this observed deviation will be at least partially eliminated.

The speed of adjustment to the target is indicated by the size of the adjustment coefficient (ë); the closer ë is to 1, the faster the periodic adjustment. Nerlove (1958), Cagan (1956), and Friedman (1957) rationalize the extent of partial adjustment in terms of two conflicting types of costs: (a) the cost of adjustment, and (b) the cost of being out of equilibrium. The former often results from the technological, institutional, and psychological inertia and the increasing cost of rapid change. The cost of adjustment reflects the degree of difficulty in a quick adjustment of the financial ratio to a predetermined target. Some ratios (e.g., the current ratio) involve short-term items and are under the direct control of management. Consequently, they can be adjusted in the short run more easily and at less cost than other ratios.

The cost of being out of equilibrium reflects the importance to the firm of the conformity of a ratio with a target. If, for example, lenders insist on maintenance of a 2:1 current ratio, then the cost to a firm not conforming with this standard will be higher interest rates or debt renegotiation costs. Consequently, the speed of adjustment (ë) of a ratio to a target level will depend on the relative significance of these two cost items.

While ratios involving current items tend to be less costly to adjust and therefore adjust more rapidly, ratios involving long-term items (e.g., equity and long-term debt) and variables which are not under the complete control of management (e.g., sales) tend to be more difficult to adjust and thus, adjust more slowly. Accordingly, the current ratio, cash position, inventory/sales, and receivables/inventory ratios would generally tend to be adjusted more quickly (have higher values) since these ratios involve current items that are typically less costly to adjust in a given time period.

The traditional emphasis on the importance of the current ratios to lenders increases the cost of being out of equilibrium for these ratios, thus inducing management to adjust them more rapidly. The out-of-equilibrium cost argument could account for higher values for debt/total equity, current ratio, and net income/total assets ratios, since debt covenants often use these accounting numbers to place restrictions on managers' choices of accounting procedures.

The following discussion focuses on the firm-specific variables.

Absolute Size

Cross-sectional financial data can be affected by many systematic factors. For example, a firm's current assets generally depend on its size, its industry's credit practice, the nature of its output market, its current debts, and so forth. These systematic factors are elements common to all firms within the specified group (e.g. industry). Generally, such groupings are considered to be homogeneous. The frequently used financial analysis technique of comparing the ratios of individual firms to an industry standard and drawing inferences from the sign and size of the differences provides one example of control for the effect of factors common to all firms within the specified group. Another example is provided by the use of index models, in which ratios of firms are regressed on economy and industry indexes to yield residuals which reflect the effect of firm-specific factors. Size and industrial identification are two important proxy variables for systematic factors (Lee, 1985; Fieldsend, McLeay & Longford, 1987; Lev and Sunder, 1979). Size may proxy for leadership, economy of scale, market power, political influence, and possibly other factors. Thus, Ha₁: The greater the size of the firm, the higher the ratio adjustment coefficients (ë and ä).

RELATIVE SIZE--MARKET SHARE

Another variable sometimes used to proxy for political costs is market share. Prior research has indicated an association between political costs and market power possessed by the firm (Hagerman and Zmijewski, 1979; Zmijewski and Hagerman, 1981; Watts and Zimmerman, 1978). Market power increases the probability of antitrust activity. The FTC use a concentration measure to determine the degree of competition in an industry. Thus, Ha₂: The greater the market share held by a firm, the higher the ratio adjustment coefficients (ë and ä).

Risk

Peltzman (1976) argues that managers of firms more susceptible to political costs have incentives to undertake less risky investments. According to the Peltzman argument, low-risk firms would tend to adjust their ratios toward the target more quickly (have higher partial adjustment coefficients--ë) than would high-risk firms since the cost of being out of equilibrium for low-risk, high political cost firms is greater. For high political cost firms, the cost of being out of equilibrium (not adjusting to the target) could result in antitrust action, increased regulation, taxes, and possibly other wealth transfers. Since the Peltzman hypothesis assumes that firms more susceptible to political costs tend to have lower risk, it is anticipated that low-risk firms would tend to have higher expectation adjustment coefficients (ä). Such a prediction is consistent with our earlier predictions regarding the characteristics of firms most susceptible to political costs and with the stability of the target and information uncertainty arguments. Thus,

Ha₃: Low-risk firms tend to adjust their ratios toward the desired target more quickly and to adjust their expectations more rapidly than do high-risk firms.

Capital Structure

A default on a debt contract is costly, so contracts that define a breach in terms of accounting numbers provide incentives to choose accounting procedures that reduce the probability of a breach. If a breach is expected to occur under one accounting method, managers could conceivably switch procedures to avoid the breach. Thus, the existence of debt contracts may influence managers' operating decisions and choice of accounting procedures and resulting ratios.

Ownership Control

The disciplining effects of stockholders provide a motivation to smooth performance measures such as earnings and ratios. Unexpected poor performance may increase the probability of outside takeover (DeAngelo, 1988), firing, or salary reduction. Unexpected good performance may cause future performance to appear poor by comparison (Dhaliwal, Salamon & Smith, 1982). Numerous researchers (Gordon, 1964; Monsen and Downs, 1965; Schiff, 1966; Amihud, Kamin & Ronen, 1975; Smith, 1976) have argued that management sensitivity to the disciplining effects of stockholders will depend on the degree of management's ownership control. Thus, Ha₅: Management with small ownership control has greater incentives to adjust performance measures, indicating larger ratio adjustment coefficients (ë) and (ä) for such firms.

CONCLUSION

As indicated above, three variables are used in the proposed research to proxy for political costs in testing the effect of the size hypothesis on the ratio adjustment process: size, market share, and risk. The size hypothesis is based on the assumption that large firms are more politically sensitive and have relatively larger wealth transfers imposed upon them (political costs) than smaller firms. The cost of being out of equilibrium would be greater for such firms. Consequently, large firms have a greater incentive to adjust accounting numbers and ratios to desired (target) levels (Moses, 1987). Lev (1969) hypothesized that because of the indivisibilities (lumpiness) of assets and liabilities, a large firm would find it easier and less costly to adjust its ratios to a target than a small firm in a given time period. His results support this argument. Therefore, higher partial adjustment coefficients (ë) are anticipated for larger firms.

REFERENCES

- Amihud, Y., J. Kamin & J. Ronen (1975). Managerialism and ownerism in risk-return preferences. *Ross Institute of Accounting Research*, working paper 75-4, New York University.
- Cagan, P. (1956). The monetary dynamics of hyper-inflations. In M. Friedman (Ed.), *Studies in the Quantity Theory of Money, I.* Chicago: The University of Chicago Press.
- De Angelo, L.E. (1988). Managerial competition, information costs, and corporate governance. *Journal of Accounting and Economics*, *3*, 3-36.
- Dhaliwal, D., G. Salamon & E. Smith (1982). The effect of owner versus management control on the choice of accounting methods. *Journal of Accounting and Economics*, 7, 41-53.
- Fieldsend, S., N. Longford & S. McLeay (1987). Ratio analysis: A variance component analysis. *Journal of Business, Finance and Accounting*, Winter, 497-517.

- Friedman, M.A. (1957). Theory of the consumption function. Princeton, NJ: Princeton University Press.
- Gagnon, J. (1967). Purchase versus pooling of interests: The search for a predictor. Supplement of Journal of Accounting Research, 187-204.
- Gordon, M. (1964). Postulates, principles and research in accounting. *The Accounting Review*, 4, 251-263.
- Hagerman, R. & M. Zmijewski (1979). Some economic determinants of accounting policy choice. *Journal of Accounting and Economics*, 9, 141-161.
- Kalay, A. (1982). Stockholder-bondholder conflict and dividend constraints. *Journal of Financial Economics*, 10(7), 211-233.
- Lee, C.F. & C. Wu (1988). Expectation formation and financial ratio adjustment processes. *The Accounting Review*, 4, 292-306.
- Lee, C.W. (1985). Stochastic properties of cross sectional financial data. *Journal of Accounting Research*, Spring, 213-227.
- Leftwich, R. (1980). Market failure fallacies and accounting information. *Journal of Accounting and Economics*, 2, 193-211
- Lev, B. (1969). Industry averages as targets for financial ratios. *Journal of Accounting Research*, Autumn, 290-299.
 Lev, B.B. & S. Sunder (1979). Methodological issues in the use of financial ratios. *Journal of Accounting and Economics*, 1, 187-210.
- Monsen, R., J. Chiu & D. Cooley (1968). The effect of separation of ownership and control on the permanance of the large firm. *Quarterly Journal of Economics*, *8*, 435-451.
- Monsen, R. & A. Down (1965). A theory of large managerial firms. *The Journal of Political Economy*, *6*, 221-236. Moses, O.D. (1987). Income smoothing and incentives: Empirical tests using accounting changes. *The Accounting Review*, *4*, 358-377.
- Nerlove, M. (1958). Adaptive expectations and cobweb phenomena. *Quarterly Journal of Economics*, May, 227-240.
- Peltzman, S. (1976). Toward a more general theory of regulation. Journal of Law and Economics, 19(8), 211-240.
- Schiff, M. (1966). Accounting tactics and the theory of the firm. Journal of Accounting Research, Spring, 62-67.
- Siegfried, J. (1975). The determinants of antitrust activity. Journal of Law and Economics, 10, 559-581.
- Smith, C.W. & J.B. Warner (1979). On financial contracting: An analysis of bond covenants. *Journal of Financial Economics*, 7(6), 117-161.
- Smith, E. (1976). The effect of the separation of ownership from control on accounting policy decisions. *The Accounting Review*, 10, 707-723.
- Watts, R. & J. Zimmerman (1978). Towards a positive theory of the determination of accounting standards. *The Accounting Review*, *1*, 112-134.
- Zmijewski, M. & R. Hagerman (1981). An income strategy approach to the positive theory of accounting standard setting/choice. *Journal of Accounting and Economics*, 8, 129-149.

A STUDY OF FIRM-SPECIFIC FACTORS: EVIDENCE OF THE RATE OF RATIO ADJUSTMENT ACROSS DIFFERENT FINANCIAL RATIOS

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ABSTRACT

Although there is evidence of size and industry effects on the rate of ratio adjustment in prior research studies, results do not show a unique industry effect on the adjustment pattern of all financial ratios tested. When industry-wide factorial control is implemented, there still exists variation across firms within the same industry in the pattern of ratio adjustment to the assumed target. Variations exist in the speed of adjustment to the norm (ë) as well as in the rate at which firms adjust their expectations regarding the stability of the target (ä).

INTRODUCTION

Our study attempts to enhance our understanding of the ratio adjustment process by examining the association between certain firm-specific factors and the rates of ratio adjustment and expectation adjustment. Our study provides descriptive evidence of the rate of ratio adjustment across different financial ratios. Our study also assesses the sensitivity of the ratio adjustment phenomenon to different measurement periods. Although ratios are used extensively by practitioners and researchers, little is known about the nature of financial ratio information. The evidence provided by this study will contribute to our understanding of the ratio adjustment process and will provide information useful in the development of a theory of financial ratios. A by-product of this study is the insights and implications regarding the stationarity of the PAAE model and the stability of the industry over time.

THE MODEL

A model is only useful for predictive purposes if the underlying relationships and parameters are stable over time. Since one use of financial ratio data is for prediction, an important issue is how these ratios change over time. The present study addresses this issue and provides a further basis for the formulation of testable hypotheses about the predictive and descriptive utility of financial statement information.

In the present study, a random sample of 92 firms was obtained from Standard and Poor's Compustat file for the period 1969-1988. Compustat's four-digit industrial classification was used as the basis for identifying industry groups. The seven financial ratios included in the analysis were chosen from the seven-factor classification system developed by Pinches, Mingo, and Caruthers (1973). These classifications summarize empirical relationships among financial ratios but are essentially independent. Initially, arithmetic means for each industry group proxied for the target ratio, although the sensitivity of the empirical results to this measure was assessed by repeating the analysis using the median as the target measure.

A two-stage regression procedure was employed. The Marquardt nonlinear least-squares regression method was used to estimate ë and ä for each firm for the 18-year period for each of the seven financial ratios tested. Once ë and ä estimates were obtained for each of the seven ratios, then ë and ä were each regressed on the four firm-specific explanatory variables for which a full 18 years of data were available (size, market share, beta, and debt/equity).

The firm-specific factors considered are supported by agency arguments and have been used in prior research dealing with the earnings effects of accounting choice. The hypothesized relationships between these factors and ratio adjustment has been tested on a random sample of U.S. corporations over an 18-year period ending in 1988.

STAGE ONE

Stage One results indicated high R²s for the nonlinear regression parameter estimates (ë and ä). These results were comparable to those obtained by Lee and Wu (1988). Stage Two results did indicate evidence of some relationship between the selected firm-specific factors and ratio adjustment. Partial adjustment results indicated the predicted sign for size in 30 percent of the ratios tested, the predicted sign for market share in 14.3 percent of the ratios, the predicted sign for beta in 30 percent of the ratios, and the predicted sign for debt/equity in 71.4 percent of the ratios tested. Significant results for beta were achieved for the current ratio.

Adaptive expectation results indicate the predicted sign for size in 71.4 percent of the ratios tested, the predicted sign for market share in 42.9 percent of the ratios, the predicted sign for beta in 14.3 percent of the ratios, and the predicted sign for debt/equity in 42.9 percent of the ratios tested. The partial adjustment results show the greatest support for the proposed theoretical relationships for the beta and debt/equity firm-specific variables. The adaptive expectation results show greatest support for the proposed theoretical relationships for the size and market share firm-specific variables.

STAGE TWO

Stage Two results indicated in general small R²s and F-statistics, indicating that the independent variables only explain a portion of the variation in ratio adjustment as measured by ë and ä. Additional explanatory variables need to be identified and added to the model. Also, the variables chosen to represent firm-specific characteristics are imprecise proxies.

The results for ë and ä seem to depend on the information structure of the particular financial ratio. The Durbin-Watson statistic indicated no negative or positive autocorrelation.

THE MEDIAN AS THE TARGET

Using the median as the target generally improved the model as indicated by higher R²s for both Stage One and Stage Two regressions. Larger parameter estimates for Stage Two were generally achieved. Results using the median paralleled results obtained from reducing the sample to include only the most recent 10 years. R²s for Stage One regressions for the reduced sample generally fell in between those obtained from the full sample and those obtained using the median. Stage Two partial adjustment results show greatest support for the proposed theoretical relationships for the size and market share firm-specific variables. Adaptive expectation results show greatest support for the beta and debt/equity variables. These results contradict the Stage Two results obtained from the full sample. However, they confirm the results obtained using the median as the target. The mean, therefore, appears to have greater sensitivity to specific time periods, and it is thus a less stable target measure for ratio adjustment.

EFFICIENCY OF THE MODEL

The efficiency of the generalized model used in this study was compared with the same model in prior studies and a partial adjustment model in a prior study. MSEs were compared for all ratios common to the three studies. The generalized model provided greater efficiency and lower MSEs than the partial adjustment model. The MSEs for our study were slightly higher than those obtained from the Lee and Wu study, which may be explained by the use of bounds in the nonlinear regression procedure.

LIMITATIONS

While the independent variables were consistent with measures used in previous economic consequence studies, the variables are imprecise proxies for the underlying constructs. Another possible limitation is the artificiality of the industrial blocking used in this paper. The S.I.C. code is based on similarity of the production process, but firms of the same S.I.C. code may still adopt different output markets and so forth. Thus, the factorial control over industry factors may not be completely effective. Also, since there is currently no theory of financial ratios, the results from this research may be confounded due to omitted variables.

Also, although high R²s were obtained for the nonlinear regressions, there is the possibility that the generalized model used is not the best and most efficient model for measuring ratio adjustment as measured by the two components, partial adjustment (ë) and adaptive expectation (ä). It is possible that the intercept term used in this model is unnecessary and should be dropped. This could impact both Stage One and Stage Two regression results.

FURTHER RESEARCH OPPORTUNITIES

A substantial portion of the research dealing with the partial adjustment adaptive expectation model dates back 10 years or earlier, as evidenced by the references for this paper. Further research

opportunities exist in applying this model to questions and issues arising in today's accounting and economic environment.

Results from the present study did indicate some support for an association between ratio adjustment, as measured by ë and ä, and the four firm-specific factors tested (size, market share, beta, and debt/equity). The results also depend on the information structure of the particular financial ratio. Additional research opportunities exist in defining and analyzing the information structure of each individual ratio in an attempt to expand the theory of financial ratios. This would also enhance understanding of the ratio adjustment process and could aid in the identification of additional factors driving this adjustment.

CONCLUSION

One implication of this paper is an assessment of the effect of the rate of ratio adjustment on the understanding of the determinants of accounting choice. The use of accounting choice among alternative accounting procedures is one mechanism for adjusting financial ratios to predetermined targets.

REFERENCES

- Altman, E.I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *Journal of Finance*, *9*, 589-609.
- Ezzamel, M., J. Brodie & C. Mar-Molinero (1987). Financial patterns of UK manufacturing companies. *Journal of Business, Finance and Accounting*, Winter, 519-36.
- Ezzamel, M., C. Mar-Molinero & A. Beecher (1987). On the distributional properties of financial ratios. *Journal of Business, Finance and Accounting*, Winter, 463-81.
- Fieldsend, S., N. Longford & S. McLeay (1987). Ratio analysis: A variance component analysis. *Journal of Business, Finance and Accounting*, Winter, 497-517.
- Freeman, R.N., J.A. Ohlson & S.H. Penman (1982). Book rate-of-return and prediction of earnings changes: An empirical investigation. *Journal of Accounting Research*, Autumn, Part II, 639-653.
- Friedman, M.A. (1957). Theory of the consumption function. Princeton, NJ: Princeton University Press.
- Gagnon, J. (1967). Purchase versus pooling of interests: The search for a predictor. Supplement of Journal of Accounting Research, 187-204.
- Gentry, J.A., P. Newbold & D.T. Whitford (1987). Funds flow components, financial ratios, and bankruptcy. *Journal of Business, Finance and Accounting*, Winter, 595-606.
- Gibson, C.H. (1982). How industry perceives financial ratios. Management Accounting, 4, 13-19.
- Givoly, D. (1985). The formation of earnings expectations. *The Accounting Review*, 7, 372-386.
- Gordon, M. (1964). Postulates, principles and research in accounting. The Accounting Review, 4, 251-263.
- Hagerman, R. & M. Zmijewski (1979). Some economic determinants of accounting policy choice. *Journal of Accounting and Economics*, 9, 141-161.
- Healy, P. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, 4, 85-
- Hopwood, W.S. & T.F. Schaefer (1988). Incremental information content of earnings and nonearnings-based financial ratios. *Contemporary Accounting Research*, Fall, 318-42.
- Horrigan, J.O. (1968). A short history of financial ratio analysis. Accounting Review, 4, 284-294.
- Houghton, K.A. & D.R. Woodliff (1987). Financial ratios: The prediction of corporate success and failure. *Journal of Business, Finance and Accounting*, Winter, 537-54.
- Imel, B. & P. Helmberger (1971). Estimation of structure-profit relationships with application to the food processing sector. American Food Processing Sector, *American Economic Review*, 61(4), 4, 614-627.

- Johnson, W.B. (1979). The cross-sectional stability of financial ratio patterns. *Journal of Financial and Quantitative Analysis*, 12, 1035-1048.
- Lee, C.F. (1976). Functional form and the dividend effect in the electric utility industry. *Journal of Finance 31*,1481-86
- Lee, C.F. & C. Wu (1988). Expectation formation and financial ratio adjustment processes. *The Accounting Review*, 4, 292-306.
- Lee, C.F. & J.K. Zumwalt (1981). Association between alternative accounting profitability measures and security returns. *Journal of Financial and Quantitative Analysis*, 16, 1-22.
- Lev, B. (1969). Industry averages as targets for financial ratios. *Journal of Accounting Research*, Autumn, 290-299. O'Connor, M. (1973). On the usefulness of financial ratios to investors in common stock. *The Accounting Review*, 4, 339-352.
- Ohlson, J.A. (1980). Financial LRatios and the probabilistic prediction of bankruptcy. *Journal of Accounting Research*, Spring, 109-131.
- Peltzman, S. (1976). Toward a more general theory of regulation. Journal of Law and Economics, 19(8), 211-240.
- Pinches, G.E. & K.A. Mingo (1973). A multivariate analysis of industrial bond ratings. *Journal of Finance*, 3, 1-18.
- Pinches, G.E., A. Eubank, K. Mingo & J. Caruthers (1975). The hierarchical classification of financial ratios. *Journal of Business Research*, 10, 295-310.
- Pinches, G.E., K. Mingo & J. Caruthers (1973). The stability of financial patterns in industrial organizations. *Journal of Finance*, *5*, 295-296.
- Rege, U.P. (1984). Accounting ratios to locate takeover targets. *Journal of Business, Finance and Accounting*, Autumn, 391-311.
- Reilly, F.K. (1986). Investments. New York: The Dryden Press.
- Ronen, J. & S. Sadan (1975). Classificatory smoothing: Alternative income models. *Journal of Accounting Research*, Spring, 133-149.
- Ronen, J. (1981). Accounting classification as a tool for income prediction. *The Journal of Accounting, Auditing, and Finance*, Spring, 339-353.
- Schiff, M. (1966). Accounting tactics and the theory of the firm. Journal of Accounting Research, Spring, 62-67.
- Siggfried, J. (1975). The determinants of antitrust activity. *Journal of Law and Economics*, 10, 559-581.
- So, J. (1987). Some empirical evidence on the outliers and non-normal distribution of financial ratios. *Journal of Business, Finance and Accounting*, Winter, 483-496.

ARTIFICIAL EMPOWERMENT

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ABSTACT

The primary subject matter of this case deals with a management practice I have termed as "Artificial Empowerment."

Artificial Empowerment is a management tactic where a manager assigns a task to a subordinate without also supplying the necessary and traditional resources (people, money, time, information) in a sufficient and timely manner for the subordinate to complete the task within normal channels. The assignment is often not made known to the entire work group and is usually delivered with a great sense of urgency. The manager appeals to the subordinate's desire to excel and alludes to future rewards for helping in this "covert" endeavor. In short, the employee is asked to complete a task without being given the legitimate power or resources to make it happen.

This paper explores a real situation at a major US defense contractor. The management of a small missile development group exercised Artificial Empowerment on the group members to achieve short-term results. The group's management hoped to springboard their careers by using this underhanded tactic to circumvent established procedures and achieve a successful program. In the end, morale plummeted and team members left—carrying with them the unique knowledge, skills, and abilities that made the missile work possible. The managers of the group did not receive the career-making promotions they sought. Instead, the managers found that they were being manipulated by upper management the same way they were manipulating their subordinates.

This paper explores the perceptions, motivations, and psychological contracts at play when a manager uses Artificial Empowerment to delegate responsibility without delegating any legitimate power.

INTRODUCTION "FROM BELOW THE RADAR TO THE CENTER SPOTLIGHT"

Target Missile Systems (TMS) is a small organization of about fifty people within a large defense conglomerate. For the last eight years, TMS has survived by conducting campaign-style missions where target missiles are launched from remote locations with little or no infrastructure. Everything needed to launch a test missile has to be carried to the field--if you don't bring it with you, you do without it. The work is very dangerous and requires close teamwork and trust between its members. At first, from corporate headquarters' viewpoint, TMS missions were conducted as a novelty. The missions conducted by the organization were barely noticed because the revenue stream was insignificant compared to total sales for the company. TMS operated "below the radar" without having to closely adhere to all of the corporate practices and policies. Later, TMS won some contracts that garnered close attention from corporate headquarters—not because of the larger sales figures, but because of the national importance of the mission. If the TMS team had a failure,

it could really give the entire company a "black eye." Corporate Vice Presidents began insisting that TMS follow corporate practices and policies to the letter. This placed a great strain on the small TMS organization because most corporate policy is written with large weapon system or satellite programs in mind and staffed by hundreds of engineers. The small TMS organization began to collapse under the load of the new requirements. Still, some of the group's leaders had very lofty corporate aspirations and felt that a successful launch would erase any shortcomings in adherence to corporate policy. So, rather than tell the customer (the government) and corporate leaders the organization had too few employees to do the job within the corporate guidelines, the group's leaders resorted to slick tactics. The official direction given to employees was to follow all corporate policy. The unofficial direction given to the team was to get the job done by any means necessary. This is when management began practicing Artificial Empowerment.

THE PROBLEM: I'M MAKING YOU "SPECIAL SECOND ASSISTANT TO THE NIGHT MANAGER."

In much the same way as the night manager at the *In-and-Out Burger* fast food restaurant might put a new employee "in charge" of the French fry production and give him a glossy title, so was the case at TMS.

Here's how a TMS manager would practice Artificial Empowerment. The manager would call a subordinate to his office and give a speech that sounds something like the following:

"Steve, you know how important this program is to the company and to the government. You also know that corporate headquarters wants us to follow every procedure and every policy to the letter. But Steve, the schedule is really tight and resources are stretched to the max. You know we can't stay in the guidelines and get this done on time. I need someone who knows how to get things done. I need someone who's willing to be a real action player on this team and work behind the scenes to move things along. You're the only one I can count on to get this task done. If you take this task and run with it, I'll make sure you are well taken care of when its time for promotions. I want to groom you for bigger and better things in the future, but right now meeting the next milestone is critical to both of our careers. I don't have anybody I can assign to you or any extra funding I can give you, but perhaps soon. Do what you have to outside the process Steve. Don't mention this to the rest of the team and report back to me daily. Let's meet this milestone, and I'll pull some strings for you."

Steve walks out of the manager's office feeling very important and firmly holding onto the psychological contract just planted in his mind. If he accomplishes the task outlined by the manager, then promotions, and legitimate delegated power will surely follow in the future. Steve has a need to "fit-in." He wants to be accepted by his manager. He wants to have some control over his environment. He wants to have a sense of accomplishment. Steve marches ahead with great enthusiasm even pressuring fellow co-workers to step outside the process and meet the milestone. Does Steve have any legitimate power at this point? No! Steve has just been "Artificially Empowered."

This same conversation and the same cycle are repeated with other employees on different tasks and different milestones. Soon, the manager has his entire team feeling they are each on their own "covert" mission—each out to fulfill their own psychological contract with no legitimate power. Each has been "Artificially Empowered."

SHORT TERM RESULTS: THE CARROT ON THE STICK

Steve completes his task without getting caught by Quality Assurance only to be given the "next critical mission." The other team members increase their performance and meet their assigned "covert" operation as well. How long can the manager keep this circus running? Only for a limited time—but its longer than one may think. Promotions cycles at the company run only once per year. Team members will strive to maintain the level of motivation induced by constant artificial empowerment for at least two promotion cycles. Promotions alluded to are always just around the corner and delegation of legitimate power is always somehow not possible just yet. The punishment for being outside of the policies and procedures is mild for first and second offences. Team members are willing to accept the punishment because of the strong psychological contract they are given. They also become practiced at skirting around the policies without getting caught.

LONG TERM RESULTS: BURNOUT AND NOTHING STICKS TO A TEFLON MANAGER

But what happens when it starts to fall apart? Eventually the employees start to realize that they will never be given the necessary resources to complete tasks through normal channels. Promotion cycles come and go without reward. In the employee's mind there has been a default in the psychological contract laid out by the slick manager. There is a loss of trust. The employee is constantly stressed out because everything has a sense of crisis about it. Long hours spent trying to achieve success without the tools or the manpower keeps the employees away from home and family. Even though there is a strong feeling of accomplishment, low motivation starts to dominate the employee's feelings. There is a sense of loss of control over one's environment (Maslow). The more senior level employees are the first to be affected by the artificial empowerment atmosphere. They realize that work is not supposed to be this way. More junior employees are more susceptible to the artificial empowerment tactic. They believe the manager when they are told, "change is just around the corner."

When employees get caught by quality, security, safety, or procurement for being outside of the stated policy, he/she is summarily "hung out to dry" and face the music alone. The manager "spins" the reason for not intervening and reassures the employee, "it doesn't matter, and I'll take care of you in the end." This actually results in a stunted career growth. Some employees start to have bad "rap" sheets built in their file, which makes promotions much more difficult.

DISCUSSION: WHAT MOTIVATED TMS MANAGEMENT TO BEHAVE IN SUCH A RUTHLESS WAY?

Why was TMS management so ruthless in the pursuit of having a successful program? There are several behavioral characteristics at play here. The following are some of the possibilities:

i. Perception--TMS management perceived that the program was being watched at such high levels by both the government and corporate headquarters that the success of their careers was riding on the success of this one program. Also, TMS

- management had outlined for themselves a rigid plan for advancement. Succeeding in this program was key to that advancement. Using artificial empowerment tactics on subordinates in this way was only a means to an end and totally unhampered by conscience.
- ii. Psychological contracts—But was the program really in the spotlight as much as TMS management believed? Perhaps the corporate leaders had led these lower managers into a similar psychological contract as well. It could have been that TMS management had defined for themselves a reality based on their perceptions. They saw what they were expecting to see. They desired great things for their careers based on the outcome of this program. As such, they absorbed all supporting information and filtered out all information to the contrary.
- iii. Attribution Theory—Perhaps TMS management was rewarded in the past for success regardless of how it was achieved. In other words, rewards were forthcoming because the ends justified the means. Perhaps they believed that this is how the world works.
- iv. Delegation Paranoia—TMS management had each of the team members chasing after different tasks. All of them had been artificially empowered with no true power delegated to them. It would have been much more normal for TMS management to create work teams and delegate power to those teams. However, TMS management exhibited signs of delegation paranoia. TMS Management felt it was important to stay in the spotlight. If a subordinate displayed a desire to lead people, then TMS management saw it as a threat to their power. A supervisor who distrusts and fears subordinates may refuse to delegate authority to them as a means of countering their threat. A thief thinks everybody else is a thief.
- v. No Punishment—In TMS management's mind they had everything to gain and nothing to lose. If an employee was caught outside the process, the manager could always claim that their official direction was to follow procedures. There were no repercussions for the manager for treating employees in this manner.

THE FUTURE: AN ORGANIZATION CAN ONLY HEMORRHAGE FOR SO LONG

Within TMS, the problem of Artificial Empowerment has not gone away, but many of the people have. As mentioned earlier, the more senior level employees were the first to realize that the work group was being severely micromanaged and artificially empowered. As such, they were the first to suffer from the loss of job satisfaction, and they were the first to leave. At this time, only the junior level employees remain in the organization under the current TMS Management—still believing change is just around the corner. The organization is still conducting work very similar in nature to the original program. TMS will be able to continue this type of work for as long as there are no major technical changes to the missions. In short, they are "coasting" on the infrastructure and the good technical work done by the senior level employees who were the real brains behind the organization, but who are now gone.

From a technical standpoint, the missile launches that TMS conducted were extremely successful and have probably helped our military in Iraq. However, the missions didn't springboard

the careers of TMS management as expected. The successful launches came and went with only marginal fanfare from corporate headquarters. The government viewed the program as simply "services received for funds rendered." And now, ironically, TMS management is still waiting on those great rewards that corporate headquarters is still promising are "just around the corner."

ARTIFICIAL EMPOWERMENT: MANY THEORIES IN MOTION

There are many behavior concepts at play in the motivations behind Artificial Empowerment and the short and long-term feelings and behaviors that result. Some of the major concepts are as follows:

- vi. TMS Management is exhibiting "strong X" behavior as defined by Douglass McGregor. They feel the need to micromanage
- vii. Motivation is playing a large role for both the management and the employees. Each party is motivated by the promise of promotion and power.
- viii. Perception is driving the behaviors for both parties.
- ix. Changing attitudes and changing job satisfaction is a dynamic exhibited during the course of the Artificial Empowerment cycle.
- x. A. H. Maslow's hierarchy of needs captures some of the behavioral characteristics exhibited on both sides of Artificial Empowerment.
- xi. Expectancy Theory is alive and well within Artificial Empowerment. Each side has expectations that good results will follow extraordinary effort.
- xii. Once the psychological contract is broken, equity theory plays a role in the employee's analysis of the situation.
- xiii. Quality of work life is lacking in Artificial Empowerment atmospheres and good job design is sorely lacking.
- xiv. The total concept of the team was missing for the TMS organization.
- xv. All legitimate power was missing from the employees who needed it. Coercive and reward power was wielded by TMS management.

The above list is just a partial summary of all of the dynamics in the practice of Artificial Empowerment. All of the relevant concepts are too numerous to list here, but it is sufficient to state that the Artificial Empowerment concept is quite complex and there are many forces at work.

SUMMARY

While Artificial Empowerment is not the normal mode of management at this defense company, it is certainly not an isolated incident. It is a practice that affects all types of organizations everywhere. Today's business world is ever evolving; however, understanding people's motivations and behaviors is key to successfully navigating management. This new concept of Artificial Empowerment is only a tiny building block in the larger body of management theory. Artificial Empowerment has been only briefly explored here, but its dynamics and its implications deserve further study and consideration in the future.

SOURCES

- Belasco, James A., and Stayer, Ralph C. Flight of the Buffalo. 1st ed. New York: Warner Books, 1993.
- Glos, Raymond E. Ph.D., C.P.A, and Steade, Richard D., Ph.D., and Lowry, James R. Ph.D. <u>Business Its Nature and Environment.</u> 8th ed. Cincinnati: South-western Publishing Co., 1976.
- Ivancevich, John M., and Matteson, Michael T. Organizational Behavior and Management. 6th ed. Boston: McGraw-Hill Irwin, 2002.
- Sisk, Henry L. Management and Organization. 3rd ed. Cincinnati: South-western Publishing Co., 1977.

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