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THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND EMPLOYEE LOYALTY, EMPLOYEE COMMITMENT, AND EMPLOYEE PERCEPTIONS OF ORGANIZATIONAL JUSTICE

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THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP

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EMPLOYEE PERCEPTIONS OF ORGANIZATIONAL JUSTICE

By

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ABSTRACT

THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND EMPLOYEE LOYALTY, EMPLOYEE COMMITMENT, AND EMPLOYEE PERCEPTIONS OF ORGANIZATIONAL JUSTICE

By

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This was an exploratory study to determine whether there was a relationship between transformational leadership behaviors and employee loyalty, commitment, and perceptions of organizational justice. Transformational leadership was the independent variable; the dependent variables were employee loyalty, employee commitment, and employee perceptions of organizational justice. Two Michigan-based private organizations participated in the study: (a) a large information systems provider, where 55 first- through middle-level managers were evaluated by 447 employees who reported directly to them; and (b) a medium-sized manufacturing firm, where 20 first- through middle-level managers were evaluated by 156 employees who reported directly to them.

Four instruments were used to measure the variables of interest: (a) the Transformational Leadership Scale (Otto, 1993); (b) the LMX Leader-Member Exchange Scale (Schriesheim, Neider, & Scandura, 1992); (c) the Organization Justice Scale (Moorman, 1991); and (d) the Commitment Scale (Meyer & Allen,

1984). Hypotheses were tested at the .05 significance level, using exploratory factor analysis, paired t-test for correlated means, and ANOVA.

A statistically significant positive relationship was found between transformational leadership behaviors and employee loyalty, perceptions of distributive justice, perceptions of interactional procedural justice, formal procedural justice, and affective commitment. No statistically significant relationship was found between transformational leadership behaviors and continuance commitment. Transformational leadership, distributive justice, interactional procedural justice, and affective commitment scores did not vary significantly between the two organizations sampled. A significant difference was found between the two organizations in loyalty, formal procedural justice, and continuance commitment scores.

In the information systems provider, there was significant variation in transformational leadership, loyalty, interactional procedural justice, and affective commitment scores between respondents who reported to first-level managers and respondents who reported to middle-level managers. In the manufacturing firm, there was significant variation in transformational leadership, loyalty, interactional procedural justice, formal procedural justice, and affective commitment scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

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CHAPTER I

THE STUDY

Introduction

During the decades of the 1980s and 1990s, managers in business and industry have witnessed a volatile series of changes in the way leadership is viewed in corporate America. As such, organizational leaders have been inundated with advice and prescriptions regarding ways to overcome the "leadership crisis" and deal with the threat of international competition (e.g., Kanter, 1983; Labich, 1988; Peters & Austin, 1985; Peters & Waterman, 1982; Tichy & Devanna, 1986). In general, these mandates or prescriptions focused on changes in the values and cultures of the organization through key leadership functions as the means to increase productivity, innovation, and competitiveness.

Specifically, top managers have been advised to inspire a shared vision that captures the hopes and dreams of the followers in the organization and to communicate this vision to all employees through words, symbols, and actions (Bennis & Nanus, 1985; Kouzes & Posner, 1987; Schein, 1985). Leaders have been told that employees can make important contributions to the performance of the organization and are more likely to do so if they have been delegated some degree of responsibility and influence at the job level (Kouzes & Posner, 1987; Tichy & Devanna, 1986). Finally, innovations are more likely to arise when

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top management encourages and supports risk taking and new ideas from employees (Kanter, 1983; Kouzes & Posner, 1987).

Predicted outcomes of "excellence" (Peters & Waterman, 1982), "organizational revitalization" (Tichy & Ulrich, 1984), or "high-performing systems" (Vaill, 1984) suggest achievements in innovation and productivity. But such achievements depend on employee attitudes, perceptions, and values that have been "transformed" by the action of top management. That is, the individual efforts necessary to attain high levels of performance are possible only if employees understand and internalize the vision and commit their efforts to its accomplishment. Thus, the relationship between top management actions--such as communicating a vision, encouraging and supporting innovativeness, and allowing decision influence--and organizational excellence should be mediated by the perceived clarity of the vision and the mobilization of member satisfaction with commitment to the vision (Bennis, 1984; Labich, 1988; Tichy & Devanna, 1986; Vaill, 1984).

Bass's (1985) work on "transformational leadership" mirrored the approach of the popular press. He described two forms of leadership: transactional and transformational. The transactional leader is proficient at obtaining basic levels of compliance from subordinates through behaviors such as "contingent rewards" and "management by exception" (Bass, 1985). Transformational leaders, on the other hand, attempt to inspire performance beyond mere compliance. Transformational leaders achieve this by articulating and modeling a vision for the organization, stimulating new ideas from followers,

demonstrating concern for individual development through support and recognition, and delegating responsibility to followers for job-level decisions (Bass, 1985; Kouzes & Posner, 1987).

The transformational leader assists the followers in moving up Maslow's hierarchy of needs by recognizing the individual's needs and striving to help meet these needs. The focus of the transformational leader centers on recognizing the existing needs and demands of followers and then looking for potential higher needs to engage the full person (Hitt, 1988). Figure 1 illustrates the shift from transactional leadership to transformational leadership using Maslow's (1954) hierarchy of needs.

5. Self-Actualization Needs	)	
	)	Transformational
4. Self-Esteem Needs	)	Leadership
3. Belongingness and Love Needs	)	
2. Safety Needs	)	Transactional
		Leadership
1. Physiological Needs	)	
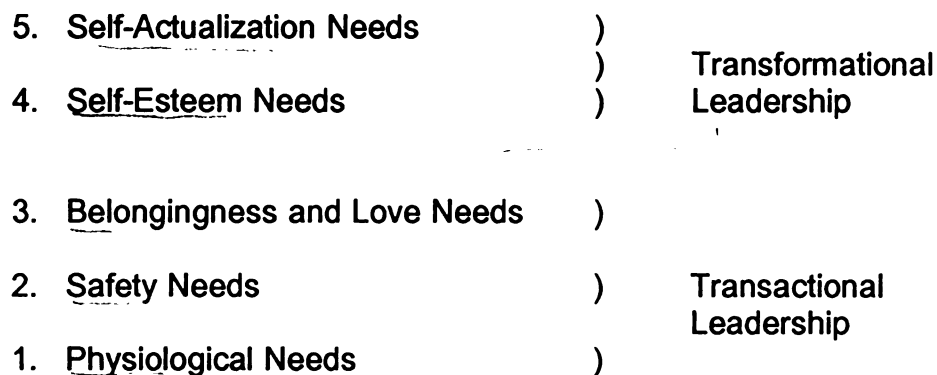
Figure 1:   Maslow's hierarchy of needs (5 = highest, 1 = most basic).

When compliance is defined as the lowest level of psychological commitment, one can infer that as followers move beyond levels of mere compliance, commitment increases either to levels of identification with the leader or internalization of important organizational values (O'Reilly & Chatman,

1986). As with the current approach to leadership (e.g., Kanger, 1987; Kouzes & Posner, 1987; Peters & Waterman, 1982; Tichy & Devanna, 1986), key variables in the transformational leadership process are clarity of the vision and mobilization of follower satisfaction with and commitment to the vision.

Although empirical research on the popular approach is sparse, Bass's work has shown that leaders who exhibit transformational leader behaviors are more likely to be rated as effective than transactional leaders are. Subordinates whose leaders exhibit transformational behaviors also reported the highest levels of extra effort, as well as satisfaction with supervisors (Bass, 1985; Hater & Bass, 1988). However, Bass has yet to examine the relationship between the transformational leadership behaviors and employee commitment, loyalty, and perceptions of organizational justice. Given the critical role of these variables in the transformational leadership process, such linkages are worthy of further exploration.

Statement of the Problem

As organizations have focused on the transformation of leadership for the achievement of increased productivity, innovation, and competitiveness, they have also instituted, simultaneously, a mind-set of restructuring or downsizing the work force to achieve the same end. This downsizing and/or restructuring in corporate America has caused employees to question the motives, strategies, and practices of their employers. It has created what Fortune magazine in December 1989 termed the "trust gap" or the overriding crisis of the commitment,

loyalty, organization-justice gap between corporate managers and their employees in a postrestructured environment.

The trust gap stems from the breakdown of the unwritten employment or psychological contract that has been prevalent in corporate America. This "contract" surrounded employees with a feeling of security or job entitlement. In other words, the unwritten rule was simply, if you did your job, you had a job. Unfortunately, the violent turmoil in American business during the 1980s has caused the termination of this contract without warning. With the termination of the contract, employee loyalty and commitment have also terminated (Yankelovich, Clancy, & Shulman, 1989).

It appears that one of the greatest corporate challenges in the 1990s will be for employers to close the trust gap by replacing the old cradle-to-grave employment contract with intrinsic rewards (Reid, 1991). Therefore, it is important to determine whether there is a relationship between transformational leadership, which provides intrinsic rewards, and employee loyalty, commitment, and perceptions of organizational justice. These findings might help corporate leaders meet the challenges of increased performance, productivity, and competitiveness.

Statement of Purpose

The researcher's purpose in this study was to investigate a myriad of possible relationships between transformational leadership and employee loyalty, commitment, and perceptions of organizational justice. Participants were

employees who reported directly to first- through middle-level supervisors or managers from two organizations with more than 200 employees. The first organization studied was a large information systems provider located in Michigan that had maintained a strong job entitlement contract for more than 100 years. Over the last eight years, this organization has repeatedly violated this contract through major downsizing efforts. The second organization was a medium-sized manufacturing facility, also located in Michigan. This organization experienced severe marketplace and competitive pressures in 1981. It downsized and restructured during this period. It also changed the job entitlement contract to one that, today, is characterized by jobs being earned and retained through success in the marketplace.

More specifically, the researcher had six purposes in conducting this study: (a) to identify the key underlying dimensions or behaviors of transformational leadership that may share a relationship with employee loyalty, commitment, and perceptions of organization justice; (b) to investigate the possible relationship between the key transformational leadership dimensions or behaviors and employee loyalty; (c) to investigate the possible relationship between the key transformational leadership dimensions or dimensions and employee commitment; (d) to investigate the possible relationship between the key transformational leadership dimensions or behaviors and employee perceptions of organizational justice; (e) to investigate the possibility of differences in these relationships that may exist between the two different

samples; and (f) to investigate the possibility of differences in these relationships that may exist between the two different levels of management evaluated.

This study had several important differences in context, theory, methodology, and scope from most previous studies on the effect of transformational leadership. First, with regard to context, in most previous studies the effect of transformational leadership has been treated from a management-science perspective, e.g., the effect of leadership on productivity and innovation (Howell & Higgins, 1990; Labich, 1988; Peters & Austin, 1985; Peters & Waterman, 1982; Tichy & Devanna, 1986). Several other previous researchers examined a number of key transformational leadership characteristics, e.g., communicating a vision, encouraging and supporting innovativeness, and allowing decision-making influence, and their relationship to employee commitment and loyalty (Dailey & Kirk, 1992; Mathieu & Farr, 1991; Siegel, 1992; Vardi, Weiner, & Popper, 1989). However, these authors viewed commitment and loyalty in terms of "intent to turnover" or to leave one's job. In this study, transformational leadership and its relationship to employee commitment, loyalty, and organizational justice were viewed from the psychological perspective.

With regard to theory, this researcher investigated the effect of transformational leadership on three major contextual independent variables: (a) employee commitment, (b) employee loyalty,and (c) employee perceptions of organizational justice. In addition, differences between the two organizations and two levels of management were also explored.

In terms of methodology, a quantitative approach was employed to examine the problem. Finally, with regard to scope, most previous researchers have focused on senior and top-level leadership (Bennis & Nanus, 1985; Conger & Kanungo, 1988; Kouzes & Posner, 1987; Peters & Waterman, 1982; Tichy & Devanna, 1986). This researcher focused on first- through middle-level managers, as they were the most visible leaders for employees on a day-to-day basis and were most frequently responsible for communicating and interacting with employees on a regular basis.

Rationale for the Study

Before the 1980s, behavioral research on leadership concentrated on the transactional exchange between the leader and the led. The leader clarified what needed to be done and the benefits to the self-interests of the followers for compliance. In the new paradigm, the transformational leader moves the followers to transcend their own interests for the good of the group or organization (Bass, 1985; Burns, 1978).

The 1980s were a decade in which empirical research was initiated with this new paradigm in mind. However, much more research needs to be done. Previous research has shown that transformational leadership augments transactional leadership (Waldman, Bass, & Yammarino, 1988). Does this mean that employee commitment and loyalty can be increased by fostering transformational leadership in an organization? Will employee perceptions of organizational justice become more positive because of transformational

leadership? No empirical studies have been done to determine whether transformational leadership positively affects employee commitment, loyalty, and perceptions of organizational justice. Determining this relationship could lead to a new theory on the effect of transformational leadership.

Second, in the tumultuous environment within which many organizations are operating today, business leaders, human resource specialists, and industrial psychologists are seeking effective strategies to recover employee loyalty that has been lost in corporate downsizings or restructurings (Horton & Reid, 1991). Thus, an examination of the possible effect of transformational leadership on employee loyalty in two different organizations could prove valuable in this effort.

Third, many have thought leadership skills were a matter of birth. Leaders were born, not made, with the power being vested in a limited number of people whose inheritance and destiny made them leaders. No amount of yearning and learning could change one's fate (Bennis & Nanus, 1985). By viewing first-through middle-level managers as leaders, measuring the importance of transformational leadership characteristics, and examining the possible relationships to employee loyalty and commitment and employee perceptions of organizational justice, experts in the field of leadership, management, organizational development, and human resources can target skill development in specific areas. In other words, yearning and learning may change one's fate.

Finally, a benefit of this study for society in general is that it should provide top leadership in both the private and public sectors, educators, students, and theorists in leadership, as well as managers and employees, with knowledge

about the nature of the relationship between transformational leadership and employee commitment, loyalty, and employee perceptions of organizational justice. Thus, it is important to investigate a myriad of transformational leadership characteristics and to determine which, if any, have the greatest effect on three desirable outcomes. In doing so, organizations may be able to focus on these areas and minimize many of the negative consequences that arise from corporate restructurings and downsizings; e.g., loss of employee loyalty and commitment leads to low morale and employee turnover.

Research Hypotheses

The following eight major hypotheses were formulated to assess the relationship between transformational leadership and employee commitment, employee loyalty, and employee perceptions of organizational justice:

Hypothesis 1: There is a significant positive relationship between transformational leadership behaviors and employee loyalty.

Hypothesis 2: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of distributive justice.

Hypothesis 3: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice.

Hypothesis 4: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of formal procedural justice.

Hypothesis 5: There is a significant positive relationship between transformational leadership behaviors and affective commitment.

Hypothesis 6: There is a significant positive relationship between transformational leadership behaviors and continuance commitment.

Hypothesis 7: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the organization worked for.

Hypothesis 8: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the two levels of management to which respondents reported.

Hypothesis 1 was developed to examine whether employees who reported to leaders who exhibited transformational leadership characteristics were more loyal than employees who reported directly to transactional leaders.

Hypotheses 2, 3, and 4 were developed to investigate whether employees who reported directly to leaders who exhibited transformational leadership characteristics perceived the organization as "more just" as compared to employees who reported directly to transactional leaders.

Hypotheses 5 and 6 were developed to examine whether employees who reported directly to leaders who exhibited transformational leadership characteristics were more committed to the organization than were employees who reported directly to transactional leaders.

Hypotheses 7 and 8 were developed to examine any possible differences between the two organizations sampled and the two different levels of management evaluated.

Context of the Study

For research purposes, two organizations were selected to participate in the study. In the first organization, 60 first- through middle-level managers, out

of a total pool of 500, were randomly selected for the research. Of the 60 managers who were selected, 28 middle-level managers and 27 first-level managers agreed to participate. All employees who reported directly to the managers and were available on the day the survey was administered were given the survey to complete. A total of 447 subordinates completed the survey. This equated to, on average, eight direct reports per manager being evaluated.

In the second organization, all first- and middle-level managers in the organization agreed to participate in the research. A total of 15 first-level managers and 5 middle-level managers were evaluated. All employees who reported directly to the managers and were available on the day the survey was administered were given the survey to complete. A total of 156 subordinates completed the survey. This equated to, on average, 7.87 direct reports per manager being evaluated.

In total, 603 employees participated in the study, evaluating 75 first- and middle-level managers. This equated to, on average, eight direct reports per manager evaluated.

Four instruments were used to collect quantitative data for this study:

1. The Transformational Leadership Scale, which contained 54 questions assessing 13 different leadership characteristics. This instrument measured the degree to which employees perceived the leader as demonstrating behaviors that are viewed as being transformational in nature.

2. The LMX Leader Member Exchange Scale, which contained six questions measuring perceived employee loyalty and the quality of the exchange between leader and member.

3. The Organizational Justice Scale, which contained 24 questions assessing the employee perceptions of formal procedures, interpersonal fairness, fairness in explanation of decisions, and fairness in distribution of rewards.

4. The Commitment Scale, which included an eight-item Affective Commitment Scale, which assessed commitment characterized by positive feelings of identification with, attachment to, and involvement in the work organization, and an eight-item Continuance Commitment Scale, which assessed the extent to which employees felt committed to their organization by virtue of costs that they believed were associated with leaving (e.g., investments and/or lack of attractive alternatives).

Quantitative data were used to test the research hypotheses statistically and to investigate the nature of the relationship between the independent variable, defined as the degree to which the first- through middle-level leaders were perceived as exhibiting behaviors that could be classified as transformational, and the three dependent variables, defined as employee loyalty, employee commitment, and employee perceptions of organizational justice.

Each hypothesis was tested at the .05 significance level by using the paired t-test (for correlated means) and analysis of variance (ANOVA). The

Statistical Package for the Social Sciences (SPSS-X, Version 3) and the Kansas State University mainframe computer facilities were used for data analysis.

Generalizability

The primary focus of this study was on the degree to which transformational leadership behaviors were exhibited by first- through middle-level leaders in medium to large organizations and the possible relationships of these characteristics to employee loyalty, commitment, and perceptions of organizational justice. These organizations had the following characteristics:

1. They had at least 200 employees.

2. There were at least three layers of leadership in the hierarchy.

3. The organizations had been in existence at least 10 years.

The study findings might be generalizable to first- through middle-level leaders in private-sector organizations similar in size to the ones included in this study.

Assumptions

This study was based on the following assumptions:

1. The participants' responses to the survey were honest and sincere.

2. The Transformational Leadership Scale was an effective means for measuring transformational leadership characteristics.

3. The LMX Leader Member Exchange Scale was an effective means for measuring employee loyalty.

4. The Commitment Scale was an effective means for measuring employees' affective and continuance commitment.

5. The Organizational Justice Scale was an effective means for measuring employee perceptions of distributive justice, interactional procedural justice, and formal procedural justice.

Limitations

This study had the following major limitations:

1. It was impossible to control all interactions and exchanges between employees and leaders that might affect employee commitment, employee loyalty, and employee perceptions of organizational justice.

2. The applicability of the findings to first- through middle-level leadership in public-sector organizations cannot be ensured.

3. The applicability of the findings to leadership beyond the middle level cannot be ensured.

Definition of Terms

The following terms are defined in the context in which they are used in this study:

Affective commitment–Commitment characterized by positive feelings of identification with, attachment to, and involvement in the work organization.

Continuance commitment–Extent to which employees feel committed to their organization by virtue of costs they think are associated with leaving (e.g., investments and/or lack of attractive alternatives).

Distributive justice--Fairness of differences in work outcomes, including pay level, work schedule, work load, and job responsibility.

First-level managers--Managers or supervisors who have hourly or nonmanagement workers reporting directly to them.

Formal procedural justice--The degree to which job decisions include mechanisms that ensure the gathering of accurate and unbiased information, employee voice, and an appeals process.

Interactional procedural justice--The degree to which employees think their needs are considered in, and adequate explanations given for, job decisions.

Loyalty--Goal congruence or support for the goals of the leader and the perceived quality of the leader-member exchange.

Middle-level managers--Managers or supervisors who have first- and/or second-level managers working directly for them.

Psychological or employment contract--The implied or unwritten contract that provides employees with a sense of job security or job entitlement.

Transactional leader--One who obtains basic levels of compliance from subordinates through behaviors such as contingent rewards and management by exception,

Transformational leader--One who inspires performance beyond mere compliance and attempts to engage the full person through behaviors such as articulating and modeling the vision for the organization.

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Trust gap--The questioning by employees of the motives, strategies, and practices of their employers due to workforce downsizing or restructuring.

Summary and Overview

Chapter I was an introduction to the study. In this chapter, the researcher outlined the nature of transactional and transformational leadership, the purposes of and rationale for this study, why transformational leadership is considered critical in corporate America today, and the importance of investigating the relationship between transformational leadership and employee loyalty, employee commitment, and employee perceptions of organizational justice. The context of the study was specified, and the research hypotheses, generalizability, assumptions, limitations, and definitions of terms were stated.

Chapter II contains a review of related literature and the conceptual framework of the study. The research methodology is described in Chapter III. Results of the data analysis are presented in Chapter IV. Chapter V includes a summary of the research, findings, conclusions, recommendations, and reflections.

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CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This chapter is not purported to be a comprehensive review of the literature available on the general topic of leadership. Instead, it is intended to be an examination of the literature pertinent to the present study. Included is a review of (a) transactional leadership and its relationship to employee loyalty, commitment, and perception of organizational justice; (b) transformational leadership and its relationship to employee loyalty, commitment, and perception of organizational justice; and (c) leadership and external corporate environments.

Transactional Leadership

For half a century, the study of leadership has centered on autocratic versus democratic approaches, on questions about the locus of decision making --directive versus participative, on questions about the focus--tasks versus relationships, or on questions about behavior--initiation versus consideration. At the same time, springing from the same source has been the attention to the promotion of change in individuals, teams, and organizations. Promoting change and dealing with resistance to it was seen to call for democratic, participative, relations-oriented, considerate leadership.

Often the desired change that was the target was primarily an increase in quantity or quality of performance, a substitution of one goal for another, a shift of attention from one action to another, or a reduction in the resistance to particular actions or the implementation of decisions within a contextual framework. This first order of change, or changes of degree, appears to be adequately handled by the emphasis on leadership as an exchange process, a transactional relationship in which followers' needs can be met if their performance measures up to their contracts with their leader.

In his seminal book, Leadership, Burns (1978) defined transactional leadership as "approaching followers with an eye to exchanging one thing for another: jobs for votes, or subsidies for campaign contributions" (p. 3). To expand this definition to supervisor-subordinate relations in general, in his book entitled Leadership and Performance Beyond Expectations, Bass (1985) stated that the transactional leader can be described in his or her relations with subordinates as follows:

1.   Recognizes what it is employees want to get from their work and tries to see that they get what they want if their performance warrants it.

2.   Exchanges rewards and promises of rewards for employees' efforts.

3.   Is responsive to employees' immediate self-interests if those interests can be met by employees' getting the work done.

Figure 2 shows the relationship between transactional leadership and what Vroom (1964) called the "force on a person to exert a given amount of effort
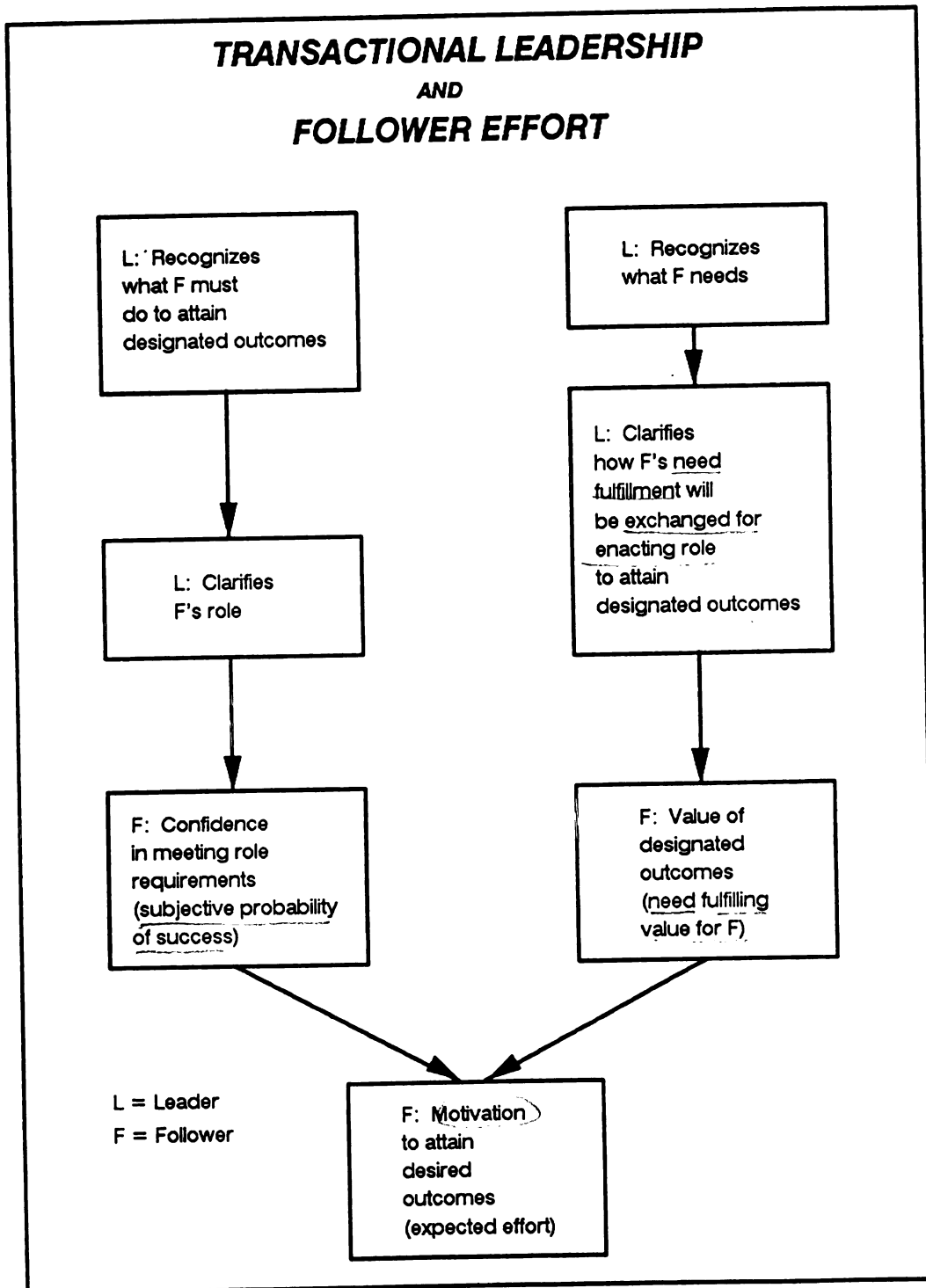
Figure 2: Transactional leadership and follower effort.

in performance of his job" (p. 284). The force is equal to the expectation that one's efforts will result in attaining the desired outcomes. As illustrated in Figure 2, transactional leaders recognize and clarify the role and task requirements for the follower to achieve the desired outcomes. This leads to the follower having sufficient confidence to exert the necessary effort.

Transactional leaders also recognize what the follower needs and wants and clarifies how these needs and wants will be satisfied if the follower expends the effort to attain the designated outcome. This makes the designated outcome of sufficient value to the follower to result in his or her effort to attain the outcome (Bass, 1985).

The study of leadership as an experimental social science and in organizational psychology has proceeded from trait to situational theories and to their interaction in contingency theories. The leader-group relationship has been replaced in importance by the individual leader/follower dyad. In the first part of the twentieth century, leadership was mainly a matter of who gives directions and orders to obedient subordinates and when those directions and orders are given. The opposing human-relations influence emphasized participative group processes and shared leadership. These two merged into one.

The behavior of leaders was then seen to be initiating structure and showing consideration for human relationships. Leader decision making was directive and/or participative. The leader's focus was on the task to be done and/or the human relations to be maintained. Throughout, the approach has

been built on economic cost-benefit assumptions about motivation, energizing, and direction of perception and behavior.

This class of leadership theories was founded on the idea that leader-follower relationships are based on a series of exchanges or implicit bargains between leaders and followers (Evans, 1970; Graen & Cashman, 1975; Graen & Scandura, 1987; Hollander, 1964; House, 1971; House & Mitchell, 1974). The general theme that runs through this class of theories is that when the job and the environment fail to provide the necessary motivation, direction, and satisfaction, the leader, through his or her behavior, will be effective by compensating for the deficiencies.

The leader provides for subordinates that which is missing but which is required for them to perform effectively and achieve their goals. In this manner, the leader compensates for or overcomes obstacles and deficiencies in the followers' environment. What is missing is determined by the environment, the task, the competence, and the motivation of the followers. It is the role of the leader to enhance followers' motivation, satisfaction, and performance.

Two such transactional theories have been subjected to extensive testing: the Path-Goal Theory of Leadership (Evans, 1970; House, 1971; House & Mitchell, 1974) and the Vertical Dyadic theory of Role Making (Graen & Cashman, 1975; Graen & Scandura, 1987). These theories recognized the importance of situational factors that moderate the effect of a leader's behavior. In addition, they emphasized the need for managers to diagnose what is missing and take action to facilitate followers' performance. Transactional theories have

been successful in predicting variance in subordinates' satisfaction, turnover, motivation, role ambiguity, and performance, as these variables normally vary.

Transformational Leadership

If the transactional leader pursues a cost-benefit, economic exchange to meet subordinates' current material and psychic needs in return for "contracted" services provided by the subordinate, the transformational leader tends to go further, seeking to arouse and satisfy higher needs, to engage the full person of the follower. Transformational leaders attempt to elevate and succeed in elevating the followers from a lower level to a higher level of need according to Maslow's (1954) hierarchy of needs.

Unlike the transactional leader, who indicates how current needs of followers can be fulfilled, the transformational leader sharply arouses or alters the strength of needs that might have lain dormant. This was illustrated by Dwight D. Eisenhower's and Harry Truman's definitions of leadership. According to Eisenhower, "Leadership is the ability to decide what is to be done, and then to get others to want to do it" (quoted in Larson, 1968, p. 21). According to Truman (1958), "A leader is a man who has the ability to get other people to do what they don't want to do, and like it." It is transformational leadership that can bring about big differences and big changes in groups, organizations, and society (Bass, 1985).

Transformational leaders are ones who motivate followers to do more than they originally expected to do with the original performance expectation, based

on their original level of confidence in reaching desired, designated outcomes by means of their performance. Such transformation can be achieved in any one of three interrelated ways (Burns, 1978):

1.   By raising one's level of awareness, one's level of consciousness about the importance and value of designated outcomes, and ways of reaching them.

2.   By getting people to transcend their own self-interest for the sake of the team or organization.

3.   By altering one's need level on Maslow's hierarchy or expanding one's portfolio of needs and wants.

Burns viewed transformational leadership as the opposite end of a single continuum from transactional leadership. Bass (1985), however, found both conceptually and empirically that leaders exhibit a variety of patterns of both transformational and transactional leadership. According to Bass, most leaders exhibit both transactional and transformational characteristics, but in different amounts.

To specify the effects of transformational leadership, Waldman, Bass, and Einstein (1987) computed a hierarchical regression analysis of transactional and transformational leadership on self-reported measures of effort and performance. By first entering the two transactional leadership scores for contingent reward and management by exception into the regression equation and then following with the transformational leadership scales of charismatic leadership, inspirational leadership, intellectual stimulation, and individualized

consideration, they demonstrated that transformational leadership had an incremental effect of 9% to 48% over transactional leadership for the different samples and outcomes predicted.

Figure 3 illustrates a model for transformational leadership that begins with a current level of effort based on the subordinate's current level of confidence and desired outcomes. The transactional leader would contribute to such confidence and desire by clarifying what performance was required and how needs would be satisfied as a result.

The transformational leader creates additional effort by further sharply increasing subordinates' confidence and by elevating the value of outcomes for the subordinates. This is done by expanding the subordinates' needs, by focusing on transcendental interests, and/or by altering or widening the subordinates' level of needs on Maslow's hierarchy.

According to Bass (1985), the items describing leaders that are generally found to be transformational, in terms of Burns's (1978) definition of transformational leadership, emerged as four factors in surveys of subordinates' ratings of their superiors:

1. Charismatic leadership—shares complete faith in him or her.

2. Inspirational leadership—communicates high performance expectations.

3. Intellectual stimulation—enables one to think about old problems in new ways.

4. Individualized consideration—provides individual support and consideration.
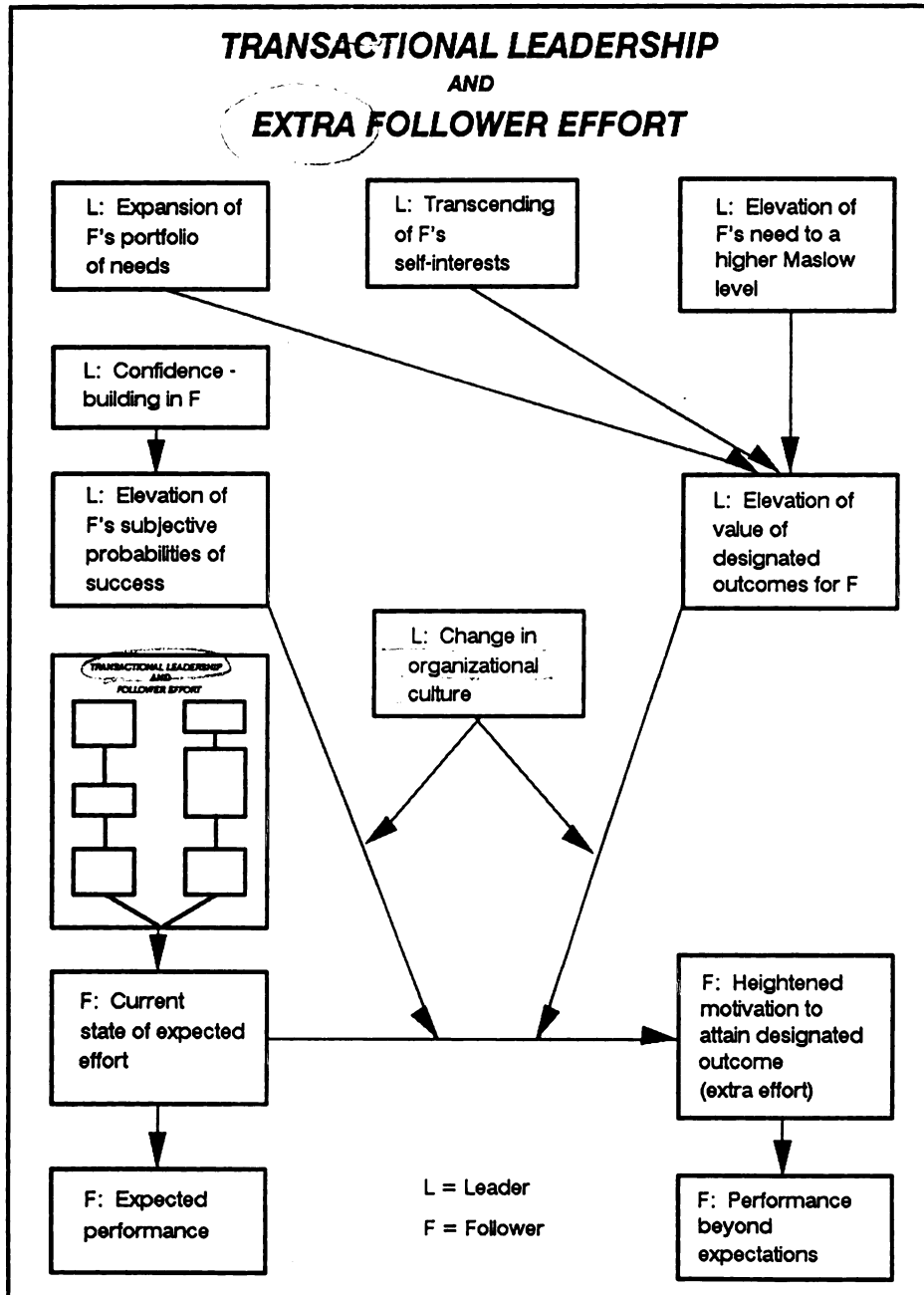
Figure 3: Transactional leadership and extra follower effort.

This pattern of factors provided a portrait of the transformational leader that Zaleznik (1977) independently drew from clinical evidence. Zalenik's leaders attracted strong feelings of identity and intense feelings about the leader (charisma), sent clear messages of purpose and mission (inspirational leadership), cultivated intensive one-on-one relationships and empathy for individuals (individualized consideration), and were more interested in ideas than processes (intellectual stimulation).

Posner and Kouzes (1988) found a parallel profile of transformational leadership from interviews. They noted that transformational leaders challenged the process, inspired vision, enabled others to act, modeled the way, and encouraged the head. Or as Nanus (1989) found, transformational leaders attract the voluntary commitment of followers, energize them, and transform organizations into new entities. Transformational leaders also empower organizations to maximize their contributions to the well-being of their members and the larger society of which it is a part.

The testing of transformational theory is still in its infancy stage; therefore, the scope of the research has been limited. The vast majority of the work has been conducted under the auspices of Bernard M. Bass (Avolio, Bass, & Yammarino, 1988; Bass, 1985; Bass & Avolio, 1989; Hater & Bass, 1988; Seltzer & Bass, 1987; Seltzer, Numerof, & Bass, 1987; Waldman, Bass, & Einstein, 1985; Yammarino & Bass, 1990). The most relevant findings from this work include the following:

1.   The most important behavior of a transformational leader was seen in items that correlated with the charismatic factor, e.g., has a special gift of seeing what it is that is really important for me to consider and has a sense of mission that he or she transmits to me.

2)   The most important effects from transformational leadership behavior include having complete faith in the leader, perceiving the leader as a model to follow, and feeling proud to be associated with the leader.

3.   Charismatic or transformational leaders were more likely to be viewed as top performers by their superiors.

4.   There was a high correlation between subordinates' ratings of charisma and the effectiveness of their leadership.

5.   There was a high correlation between charismatic leadership and other transformational characteristics, e.g., encouraged self-actualization, individualized consideration, and intellectual stimulation.

6.   Subordinates said they exerted a lot of extra effort for leaders characterized as transformational.

7.   Transformational leader factors were more highly correlated with subordinates' perceptions of organizational effectiveness and job satisfaction.

Leadership in Different Corporate External Environments

Few periods in history deserve the label "transforming eras," when circumstances change sufficiently to warrant a major shift in assumptions. Thomas Kuhn (1962), the historian of science, pointed out that major change

takes place only occasionally, in what he called paradigm shifts, when the working assumptions on which people have depended become so inappropriate that they break down, to be replaced by a more appropriate set.

Thus, social or economic history is intrinsically characterized by long periods of stability in paradigm, punctuated by relatively short periods of high instability. This model fits the changing world of corporations as well. This shift in the corporate paradigm was clearly articulated by Kanter in 1983, when she studied the differences between factors bearing on the design of an organization in the 1890s through the 1920s, the formative era for the traditional industrial corporation, and those emerging in the environment of the 1960s through the 1980s.

The turn-of-the-century labor force was uneducated, unskilled temporary workers performing simple and physical tasks. The distinction between workers and managers was one not only of task but also of language and social class. The organization served a stable marketplace with a stable source of supplies. Contrast this with the emerging organization-design factors that include a highly educated, sophisticated, and career work force performing complex and intellectual tasks; the distinctions between workers and managers overlapping and blurring; and the organization operating in a fluid market with fluid sources of supplies.

In 1989, Kanter expanded her definition of this "transformational era" by stating,

To some companies, the contest of which they are now entered seems increasingly less like baseball or other games and more like the croquet game in Alice in Wonderland . . . a game that compels the player to deal with constant change. In that fictional game, nothing remains stable for very long, because everything is alive and changing around the player . . . an all-too-real condition for many managers. The mallet Alice uses is a flamingo, which tends to lift its head and face in another direction just as Alice tries to hit the ball. The ball in turn is a hedgehog, another creation with a mind of its own. Instead of lying there waiting for Alice to hit it, the hedgehog unrolls, gets up, moves to another part of the court, and sits down again. The wickets are card soldiers, ordered around by the Queen of Hearts, who changes the structure of the game seemingly at whim by barking out an order to the wickets to reposition themselves around the court.

Substitute technology for the mallet, employees and customers for the hedgehog, and everyone from government regulators to corporate raiders for the Queen of Hearts, and the analogy fits the experience of a growing number of companies. It is getting harder and harder for executives in Alice's position to succeed by traditional corporate methods when technology, customer preferences, employee loyalties, industry regulations and corporate ownership are constantly changing. (p. 19)

The corporate call to action issued by Kanter was echoed by Peters and Waterman in 1982 with the first edition of their book In Search of Excellence. It was in this book that the authors documented their journey into management effectiveness, a journey in which they began to discover several key leadership elements that were characteristic of successful organizations operating in the dynamism that began for many in the 1970s.

Peters and Waterman found that successful organizations did not have managers in the traditional sense—planning, controlling, directing, and motivating. Instead, successful companies had a bias for action. They had autonomy and entrepreneurship throughout the organization. They were hands-on and value driven. They "stuck to their knitting." And they had simultaneous loose-tight

properties that pushed autonomy down to the lowest level while maintaining tight centralization around their most important core values. These characteristics were distinctly different from the bureaucratic, inflexible organizations that had succeeded in the past.

In 1985, Peters and Austin expanded the research on organizational effectiveness in their book A Passion for Excellence. They articulated the role of leadership, as illustrated by the following quotation:

> As we said at the beginning of this book, for the last twenty-five years we have carried around with us the model of manager as cop, referee, devil's advocate, dispassionate analyst, professional naysayer, pronouncer. The alternative we propose is leader (not manager) as cheerleader, enthusiast, nurturer of champions, hero finder, wanderer, dramatist, coach, facilitator, builder. (p. 265)

Peters and Austin thought this transformation from manager to leader was critical for organizations attempting to survive in an environment that was becoming more and more chaotic. The environment was becoming so chaotic that, in 1987, Peters wrote his third book on the topic, Thriving on Chaos. In this book, Peters maintained that the only winning organizations in this new environment will be companies that are able not only to respond quickly to changing circumstances but to proactively take advantage of them, continually creating and adding value in response to the ever-shifting desires of their customers.

These winning organizations would have a new view of leadership at all levels. This view would include:

1.	The core paradox—all leaders at all levels must contend by creating internal stability in order to encourage the pursuit of constant change.

2.	Developing an inspiring vision.

3.	Managing by example.

4.	Practicing visible management.

5.	Leading by empowering people through listening, delegating, deferring to the front line, and creating a sense of urgency.

From the seed planted by Kanter and Peters, an extensive array of popular press about the type of leadership required for the volatile environment in which American industry has found itself has followed. This includes work by Bennis and Nanus (1985), which described the four keys of effective leadership.

The first key, attention through vision, centers on the leadership role of developing a vision. The second key, meaning through communication, focuses on the leader's role as the social architect who understands the organization and shapes the way it works. The third key is based on the trust between leaders and followers that develops when the leader's vision and positions are clear. Bennis and Nanus called this trust through positioning. The deployment of self is the final key, and it is defined as the leader's ability to acknowledge and share uncertainty, embrace errors, respond to the future, become interpersonally competent, and gain self-knowledge.

In 1992, Nanus redefined these keys to success in his book Visionary Leadership. Based on the research completed for the book, Nanus explained that the key to addressing the critical issues facing the United States today, e.g.,

industrial competitiveness, degeneration of American society, and the expansion of a global economy, is leadership. The key to leadership is a vision because the vision attracts commitments and energizes people, it creates meaning in workers' lives, it establishes a standard of excellence, and it bridges the present with the future.

The importance of leadership's visionary capability was highlighted by Posner and Kouzes in 1987. The authors studied 500 middle- to senior-level executives who had achieved extraordinary accomplishments during the tumultuous 1980s. Through this research, the authors discovered that successful leadership inspired a shared vision, challenged the process, enabled others to act, modeled the way, and encouraged the heart.

The revolution taking place in many organizations also has encouraged others to come to the realization that tighter controls, greater pressure, more clearly defined jobs, and tighter supervision have, in the last 50 years, run their course in their ability to give the productivity gains required to compete effectively in the world. They also have come to the realization that leadership, not management, is the most competitive weapon in an organization's arsenal.

In addition to supporting the significance of leadership in organizational success, various researchers and authors have defined key leadership characteristics. To illustrate, Peter Block (1987), a leading organizational consultant, identified empowering by creating a vision of greatness and building support for the vision as a key leadership characteristic.

William D. Hitt (1988), Director of Management Development at Battelle Memorial Institute, found that the role of a leader must include being a change agent, creating a vision, developing the team, clarifying the values, communicating, empowering, coaching, and measuring. Noel Tichy, a professor in the University of Michigan's Graduate School of Business, and Mary Anne Devanna, Associate Dean of Columbia University's Graduate School of Business (1986) found that the only type of leadership that can successfully lead the industrial transformation is transformational leadership, with transformational leaders demonstrating the ability to diagnose the problem, create a motivating vision, mobilize commitment, and reweave the social fabric of the organization.

The preceding illustrations have been supported by a myriad of other works, such as: On Leadership (Gardner, 1990), Charismatic Leadership (Conger, Kanungo, and Associates, 1988), The New Leadership Paradigm (Sims & Lorenzi, 1992), The Leader-Manager (Williamson, 1986), and The 7 Habits of Highly Effective People (Covey, 1989). These examples all share a common theme about the decade of the 1980s and the first part of the 1990s, a theme that centers on the move from managing control to leadership of accelerated change.

These changes in life and work are coming faster and faster, with every indication that the pace of change will continue to increase. This change is rendering obsolete not only the equipment, tools, and technology in the organizations that managers manage, but also the managing skills and attitudes that the manager has learned so laboriously. People's beliefs, perceptions, and strategies about management have become obsolete and are now becoming

barriers to easy and effective adaptation. Management strategies for dealing with change that were reasonably effective in the past are no longer working. New leadership strategies and skills are needed that will allow this changing world to be moved with ease and effectiveness (Enright, 1984).

Summary

In this chapter, the related or recurrent concepts pertinent to this study were presented. In addition, the leadership challenges created by the external environments were presented. Finally, the conceptual framework for this study was presented, based on the review of literature.

CHAPTER III

METHODOLOGY

Introduction

The purpose guiding this research effort was to explore the possible relationships between transformational leadership characteristics and employee loyalty, employee commitment, and employee perceptions of organizational justice. Data were collected using quantitative methods. The methods used in carrying out the study are described in this chapter. First, the population and sample are described, and the dependent and independent variables are set forth. The research hypotheses are stated, the data-collection procedures and instrument are described, and the data-analysis methods are explained.

The Population and Sample

The study population comprised employees who reported directly to first-through middle-level managers in two different organizations:

1. A large information systems provider located in Michigan. This organization maintained a strong job entitlement psychological contract for more than 100 years. Over the last eight years, it has violated this contact on numerous occasions through downsizing and restructuring activities. Since 1986, the first- through middle-level management team has been reduced by

more than 50%. Both voluntary and involuntary separation strategies were used to achieve this reduction. In addition, during the period in which the survey was conducted, this organization was planning a major transformation that was expected to result in the reduction of another 20% of the management team by the end of 1993.

2.   A medium manufacturing facility located in Michigan.   This organization experienced severe marketplace and competitive pressures in 1981. It downsized and restructured during this period.   It also changed the job entitlement contract. Today, this contract is characterized by jobs being earned through success in the marketplace. This organization has not conducted any downsizing or restructuring efforts for more than 10 years. The top leadership does not foresee the need for downsizing or restructuring in the near future.

The sample subjects were selected using the following procedure:

1.   In the large information systems organization, 30 first-level and 30 middle-level managers were randomly selected, from a total population of more than 500, to participate in the research. The sample subjects were then asked to participate in the research voluntarily. Of the 60 managers who were selected, 27 first-level managers and 28 middle-level managers agreed to participate in the research. All employees who reported directly to the first- or middle-level managers were given the survey. A total of 447 subordinates completed the survey. This equated to, on average, eight direct reports per manager being evaluated.

2.   In the small manufacturing facility, all first- and middle-level managers agreed to participate in the research. A total of 15 first-level managers and 5 middle-level managers participated voluntarily. All employees who reported directly to the first- or middle-level manager were given the survey. A total of 156 subordinates completed the survey. This equated to, on average, eight direct reports per manager being evaluated.

In total, 603 employees participated in the survey, evaluating 75 first- and middle-level managers. This equated to, on average, eight direct reports per manager being evaluated.

The Dependent Variables

The dependent variables were employee loyalty, employee commitment, and employee perceptions of organizational justice.

The Independent Variable

The independent variable was the degree to which the first- through middle-level leaders were perceived as exhibiting behaviors that could be classified as transformational.

Research Hypotheses

Hypothesis 1: There is a significant positive relationship between transformational leadership behaviors and employee loyalty.

Null Hypothesis 1: There is no significant relationship between transformational leadership behaviors and employee loyalty.

Hypothesis 2: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of distributive justice.

Null Hypothesis 2: There is no significant relationship between transformational leadership behaviors and employee perceptions of distributive justice.

Hypothesis 3: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice.

Null Hypothesis 3: There is no significant relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice.

Hypothesis 4: There is a significant positive relationship between transformational leadership behaviors and employees' perceptions of formal procedural justice.

Null Hypothesis 4: There is no significant relationship between transformational leadership behaviors and employee perceptions of formal procedural justice.

Hypothesis 5: There is a significant positive relationship between transformational leadership behaviors and affective commitment.

Null Hypothesis 5: There is no significant relationship between transformational leadership behaviors and affective commitment.

Hypothesis 6: There is a significant positive relationship between transformational leadership behaviors and continuance commitment.

Null Hypothesis 6: There is no significant relationship between transformational leadership behaviors and continuance commitment.

Hypothesis 7: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the organization worked for.

Null Hypothesis 7a: There is no significant difference in transformational leadership scores, based on the organization worked for.

Null Hypothesis 7b: There is no significant difference in employee loyalty, based on the organization worked for.

Null Hypothesis 7c: There is no significant difference in employee perceptions of distributive justice, based on the organization worked for.

Null Hypothesis 7d: There is no significant difference in employee perceptions of interactional procedural justice, based on the organization worked for.

Null Hypothesis 7e: There is no significant difference in formal procedural justice scores, based on the organization worked for.

Null Hypothesis 7f: There is no significant difference in affective commitment scores, based on the organization worked for.

Null Hypothesis 7g: There is no significant difference in continuance commitment scores, based on the organization worked for.

Hypothesis 8: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the two levels of management to which respondents reported.

Null Hypothesis 8a: There is no significant difference in transformational leadership scores, based on the two levels of management to which respondents reported.

Null Hypothesis 8b: There is no significant difference in loyalty scores, based on the two different levels of management to which respondents reported.

Null Hypothesis 8c: There is no significant difference in distributive justice scores, based on the two different levels of management to which respondents reported.

Null Hypothesis 8d: There is no significant difference in interactional procedural justice scores, based on the two different levels of management to which the respondents reported.

Null Hypothesis 8e: There is no significant difference in formal procedural justice scores, based on the two different levels of management to which respondents reported.

Null Hypothesis 8f: There is no significant difference in affective commitment scores, based on the two different levels of management to which respondents reported.

Null Hypothesis 8g: There is no significant difference in continuance commitment scores, based on the two different levels of management to which respondents reported.

The Data-Collection Instrument

Four scales were included in the instrument that was used to collect the quantitative data for the study (see Appendix B). These scales are described below.

1. The **Transformational Leadership Scale** contained 54 questions designed to assess behaviors associated with the following 13 transformational leadership characteristics: (a) Reinforces self-confidence/independence, (b) Is supportive, (c) Drives out fear, (d) Builds a learning environment, (e) Is a positive role model, (f) Encourages participation/self-expression, (g) Shares the vision, (h) Fosters continuous improvement, (i) Recognizes individual value/abilities, (j) Fosters initiative and responsibility, (k) Encourages persistence, (l) Emphasizes intrinsic outcomes, and (m) Advocates ownership/shared leadership.

The survey measured the degree to which employees perceived the leader as demonstrating behaviors that are viewed as being transformational in nature. Responses were chosen using a five-point Likert-type scale (1 = Not at

All, 2 = Once in a While, 3 = Sometimes, 4 = Fairly Often, and 5 = Frequently If Not Always).

The Transformational Leadership Scale was a composite of the various transformational leadership instruments that are available, e.g., the Multifactor Leadership Questionnaire (MLQ) by Bernard M. Bass and Bruce J. Avolio, the Leadership Practices Inventory by James M. Kouzes and Barry Z. Posner, Transformational Leadership Characteristics by Noel M. Tichy, and The Empowering Leader Survey by Matt M. Starcevich.

This scale was developed by selecting key aspects from the above-mentioned leadership surveys that measured one or more transformational leadership characteristics. From this analysis, 13 primary characteristics were identified. The next step involved developing statements and/or behaviors that defined and/or demonstrated these characteristics.

To establish the face validity of the Transformational Leadership Scale, a series of field research steps were implemented. This included, once a preliminary set of statements and/or behaviors was compiled, the scale was given to leadership experts in academic and industry for their comments. It was also administered to a sample population of 22 nonmanagement/hourly workers and first-level managers/supervisors to ensure that the questions were interpreted as intended. Based on the findings from this field study, the survey was revised. A second field study was then undertaken. This study involved administering the revised survey to two additional sample groups of 18 and 21 nonmanagement/hourly workers and first-level managers/supervisors,

respectively. The survey instrument was then finalized following the second field study. Employees who participated in the field studies were excluded from the research sample. An alpha reliability coefficient of .99 was obtained.

2. **The LMX Leader-Member Exchange Scale** contained six questions measuring perceived employee loyalty. Responses are selected from five possible choices.

The Leader-Member Exchange (LMX) model of leadership focuses on the unique working relationship that emerges between a manager and each of his or her direct reports. Dienesch and Liden (1986) suggested that LMX is best conceptualized as a three-dimensional construct, consisting of the following subdimensions:

1. Perceived contribution. The two items measuring perceived contribution to the exchange were developed to assess the importance of the subordinate's job to the supervisors and the subordinate's ability to perform the job well (these appear as the first and fourth items on the LMX-6 Scale). The content of these items was based on the assumption that the contribution of the subordinate to the leader-member exchange process depends on the centrality of the subordinate's job to unit performance and on the degree to which the subordinate is capable of performing his or her job well (Graen & Scandura, 1987).

2. Loyalty. The two items developed to assess loyalty (Items 2 and 5 on the LMX-6 Scale) measure goal congruence or support for the goals of the leader. This treatment does not include support for the "personal character" of

the leader because including such items might result in the undesirable confounding of LMX with reference power (Podsakoff & Schriesheim, 1985) and because Dienesch and Liden (1986) indicated that the critical aspect of LMX loyalty centers on perceived goal congruence and on being a "good team member" (p. 625).

3.   Affect. The two items employed for the affect subdimension of the LMX-6 Scale were taken directly from the long-form Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967). These items assess satisfaction with supervisor human relations (Item 3) and satisfaction with the supervisor's technical ability (Item 6), as both interpersonal and task have been found to be the primary dimensions that characterize much leader-follower interaction (Schriesheim, Neider, & Scandura, 1992).

The LMX-6 Scale was standardized and validated by Schriesheim et al. (1992) with an alpha reliability of .82 and by Schriesheim and Scandura (1992) with an alpha reliability of .80. In this study, an alpha reliability coefficient of .8273 was obtained for Sample 1, the information systems provider, and an alpha reliability coefficient of .8172 was obtained for Sample 2, the manufacturing firm.

3.   The **Organization Justice Scale** contained 24 questions assessing the employees' perceptions of formal procedures, interpersonal fairness, fairness in explanation of decisions, and fairness in distribution of rewards. Responses were chosen using a five-point Likert-type scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree Nor Agree, 4 = Agree, and 5 = Strongly Agree).

The Organization Justice Scale consisted of one dimension measuring perceptions of distributive justice and two dimensions measuring perceptions of organizational justice. Distributive justice was measured using five items assessing the fairness of different work outcomes, including pay level, work schedule, work load, and job responsibilities. Procedural justice was measured with four items that tap both formal procedures and interactional justice. Formal procedures (six items) concerned the degree to which job decisions included mechanisms that ensured the gathering of accurate and unbiased information, employee voice, and an appeals process. Interactional justice (nine items) concerned the degree to which employees thought their needs were considered in making job decisions and adequate explanations were given for those decisions.

This scale was based on one used by Moorman (1991) and had reported reliabilities above .90 for all dimensions. Niehoff and Moorman (1993) reported reliabilities above .80 for all dimensions on this scale. The alpha reliability coefficients obtained in this study are as follows:

	Sample 1	Sample 2
Distributive justice	.9607	.9613
Interactional justice	.9476	.9534
Formal procedures	.9341	.9115

(Sample 1 = information systems provider and Sample 2 = manufacturing firm.)

4.   The **Commitment Scale**, developed by Meyer and Allen (1984), comprised two components. The first component was the eight-item Affective Commitment Scale, which assessed commitment characterized by positive feelings of identification with, attachment to, and involvement in the work organization. This measure has been shown to have a reliability coefficient of .87. The second component was the eight-item Continuance Commitment Scale, which assessed the extent to which employees felt committed to their organizations by virtue of costs that they thought were associated with leaving (e.g., investments and/or lack of attractive alternatives). This measure has been found to have a reliability coefficient of .77. In this study, the alpha reliability coefficients that were obtained are as follows:

	Sample 1	Sample 2
Affective commitment	.8315	.8709
Continuance commitment	.7286	.7044

(Sample 1 = information systems provider and Sample 2 = manufacturing firm.)

The testing instrument also contained four questions intended to collect demographic data on the participants, e.g., gender, age, years on the job, and years in the organization. However, it must be noted that both organizations that participated in this research project had a policy giving the respondents the option of answering or not answering survey questions pertaining to age, gender, and so on. For this reason, the responses to the demographic items were incomplete and inconclusive.

The complete data-collection instrument contained 104 questions. Although the survey appeared to be lengthy, the actual testing time was less than 20 minutes.

Data-Collection Procedures

Permission to undertake this study was granted by the Michigan State University Committee on Research Involving Human Subjects (UCRIHS). (See Appendix A.)

Quantitative data were used to test the research hypotheses statistically. All participants were assured that the information they provided would remain anonymous and confidential. To establish and maintain the anonymity and confidentiality of the responses, a special six-digit coding system was developed. The first digit designated the organization, the second digit designated the level of management (first or third), the third and fourth digits were the unique number of the manager being evaluated, and the fifth and sixth digits were the unique number for each respondent. This coding system also facilitated data analysis.

The researcher and six research assistants collected the data using the following methodology:

1.   The sample of managers/supervisors to be evaluated was selected.

2.   Managers/supervisors received a letter from the researcher, explaining the purpose of the study and requesting their permission to be evaluated by their subordinates.

3.   Once permission was obtained, a one-half-hour meeting was scheduled with all employees who reported directly to each manager/supervisor.

4.   During the meeting, the researcher or a research assistant explained the purpose of the research and assured participants that all responses would remain anonymous and confidential. Each respondent was then given a survey to complete. The manager being evaluated was not present during the testing time.

5.   The respondents placed their completed surveys in an envelope, which they gave to the researcher or research assistant. All envelopes remained sealed until data entry began.

Data-Analysis Methods

The data collected in this research project were entered into a data-entry template created for this survey. Once data entry was complete, a second person validated the data entry against the actual survey results. This validation ensured greater accuracy of the results.

The first step of the data analysis was to perform an exploratory factor analysis to identify the dimensionality or underlying dimensions in the Transformational Leadership Survey. Exploratory factor analysis allows a researcher to reduce a large set of variables into one, two, or three underlying factors. Factor analysis serves as an expedient way of ascertaining the minimum number of hypothetical factors that account for the observed covariation, and it is a means of exploring data for possible data reduction (Kim & Mueller, 1985).

Using the 54 questions on the Transformational Leadership Survey, four factors emerged in the exploratory factor analysis. However, very few questions loaded on factors other than the first, and those that did double load did so at very different levels. Because Factor 1 explained 59% of the variance in the 54 items and the other three factors explained between 2% and 3% of the variance, there was probably only one factor in the data.

To sharpen the focus of the Transformational Leadership Survey and increase the precision and manageability of this instrument, the second step was to identify which of the 54 items or questions carried the highest weighting or loading across both samples. In this step, 15 questions or items were identified that represented the highest loading across the two samples. In addition, the 15 items included at least one item from each of the 13 characteristics identified as transformational:

Reinforces My Self-Confidence/Independence—Item 27, Openly expresses confidence in me.

Is Supportive—Item 28, Builds supportive relationships with me.

Drives Out Fear—Item 29, Is able to lead me to overcome fear and uncertainty in making changes.

Builds a Learning Environment—Item 30, Is committed to my growth and development.

Is a Positive Role Model—Item 18, Establishes trust and credibility when relating to me; Item 31, Is a positive example of a "can do" approach; and Item 47, Is a coach (motivates, corrects, builds teamwork, mentors, etc.).

Encourages Participation/Self-Expression–Item 50, Actively seeks to understand my perspectives.

Shares the Vision–Item 20, Helps me set meaningful goals.

Fosters Continuous Improvement–Item 54, Is able to help me disengage from the past and move into the future.

Recognizes Individual Value/Abilities–Item 35, Demonstrates trust and confidence in my talents and potential.

Fosters Initiative and Responsibility–Item 36, Encourages me to take initiative and responsibility for my assignments.

Encourages Persistence–Item 11, Fosters in me a high level of commitment and excitement.

Emphasizes Intrinsic Outcomes–Item 25, Recognizes that the betterment of the team is as valuable as the results achieved.

Advocates Ownership/Shared Leadership–Item 52, Creates enthusiastic support for the goals and vision of the business.

The exploratory factor analysis was repeated using the 15 items. As a result, one factor was identified that explained 69.9% of the variance for Sample 1 (information systems provider) and 72.5% of the variance for Sample 2 (manufacturing firm).

Cronbach's alpha reliability coefficient obtained for the 15-item Transformational Leadership Scale was .9690 for Sample 1 and .9725 for Sample 2.

The third step involved measuring the possible relationships between the 15-item Transformational Leadership Scale and employee loyalty, commitment, and perceptions of organizational justice. Correlation coefficients were calculated for the following relationships:

1.   Transformational Leadership Scale and Loyalty Scale.

2.   Transformational Leadership Scale and Affective Commitment Scale.

3.   Transformational Leadership Scale and Continuance Commitment Scale.

4.   Transformational Leadership Scale and Distributive Justice Scale.

5.   Transformational Leadership Scale and Interactional Procedural Justice Scale.

6.   Transformational Leadership Scale and Formal Procedural Scale.

Recognizing the potential risk for multicollinearity between the dependent variables, the fourth step was to perform partial correlations that would measure the possible relationships between the independent variable and one dependent variable while controlling the effect of all other variables. Partial correlations were performed for the following relationships:

1.   Transformational Leadership Scale and Loyalty Scale, controlling for affective commitment, distributive justice, interactional procedural justice, and formal procedural justice.

2.   Transformational Leadership Scale and Affective Commitment Scale, controlling for loyalty, distributive justice, interactional procedural justice, and formal procedural justice.

3.   Transformational Leadership Scale and Distributive Justice Scale, controlling for loyalty, affective commitment, interactional procedural justice, and formal procedural justice.

4.   Transformational Leadership Scale and Interactional Procedural Scale, controlling for loyalty, affective commitment, distributive justice, and formal procedural justice.

5.   Transformational Leadership Scale and Formal Procedural Justice Scale, controlling for loyalty, affective commitment, distributive justice, and interactional procedural justice.

The final step in the research methodology was to employ analysis of variance (ANOVA) to determine whether significant relationships existed between the independent variable and the dependent variables.

The purpose of this research was to measure the strength of the linear association between transformational leadership characteristics and employee loyalty, commitment, and perceptions of organizational justice, and not to presuppose an explanatory-response relationship between the variables. For this reason, all research hypotheses were tested using correlation coefficients.

All null hypotheses were tested at the .05 significance level, using the Statistical Package for the Social Sciences (SPSS-X, Version 3).

Summary

The design and methodology of the study were described in this chapter. Included were the population and sample, and dependent and independent variables, the research hypotheses, data-collection instruments and procedures, reliability of the instruments, and the data-analysis methods. The research findings are presented in Chapter IV.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

In this chapter, the data are presented in three major sections. The characteristics of the respondents in the two samples are described in the first section. An analysis of the data to answer the research questions and results of the formal testing of Hypotheses 1 through 6 are presented in the second section. This includes the exploratory factor analysis and the frequency distribution tables for the Transformational Leadership Scale. The t-test for correlated means was used as the test statistic, with the significance level set at $p < .05$. In the third section, an analysis of the data to answer the research questions and results of the formal testing of Hypotheses 7 and 8 are presented. Analysis of variance (ANOVA) was used as the test statistic, with the significance level set at $p < .05$.

Characteristics of the Sample

Sample 1, the information systems provider, comprised 158 females and 238 males (see Table 1). Males (60%) represented a higher proportion of the sample than females (40%). It should be noted that 51 of the respondents from

this sample chose not to answer the gender question on the survey and therefore are not represented in the table.

Fifty females and 122 males from Sample 2, the manufacturing firm, participated in the study. Males (71%) predominated over females (29%). In this sample, four of the respondents chose not to answer the gender question and thus are not represented in Table 1.

Table 1:   Distribution of respondents by gender and sample.

Gender	Sample 1		Sample 2	
	Freq.[a]	Percent	Freq.[b]	Percent
Males	238	60%	122	71%
Females	158	40%	50	29%

[a]Fifty-one cases missing.

[b]Four cases missing.

Respondents in Sample 1 ranged in age from 21 years to 62 years (see Table 2). The average age was 42.07 years, with a standard deviation of 6.7 years. Sixty-eight of the respondents in Sample 1 chose not to answer the age question on the survey and are not included in the table.

In Sample 2, respondents ranged in age from 22 years to 72 years. The average age was 41.11 years, with a standard deviation of 10.65 years. In this sample, 13 of the respondents chose not to answer the age question on the survey and are not included in the table.

Table 2:   Mean ages of the two samples.

Sample	Mean Age	Std. Dev.
Sample 1[a]	42.07	6.70
Sample 2[b]	41.11	10.65

[a]Sixty-eight cases missing.

[b]Thirteen cases missing.

The respondents in Sample 1 had lengths of service with the organization that ranged from 7 years to almost 40 years (see Table 3). The mean length of service was 19.59 years, with a standard deviation of 7.45 years. Of the 447 total respondents in this sample, 220 chose not to answer the survey item concerning length of service with the organization.

In Sample 2, respondents' length of service with the organization ranged from 1 year to just under 38 years. The mean length of service was 13.98, with a standard deviation of 10.21 years. Seventy-six of the 156 respondents in this sample chose not to answer the question concerning length of service with the organization.

Table 3:   Mean time with the organization for the two samples.

Sample	Mean Time	Std. Dev.
Sample 1[a]	19.59	7.45
Sample 2[b]	13.98	10.21

[a]Two hundred cases missing.

[b]Seventy-six cases missing.

Analysis of Quantitative Data From the Exploratory Analysis

The Transformational Leadership Scale contained 54 items associated with 13 primary characteristics of transformational leaders. Tables 4 through 57 show the distribution of responses by the two samples with regard to how frequently the manager being rated exhibited behaviors that are viewed as transformational.

The ratings in both samples ranged from managers not exhibiting the behavior at all to managers exhibiting the behavior frequently, if not always. The means centered around the sometimes (3) to fairly often (4) ratings.

To identify the dimensionality or underlying dimensions in the 54 items on the Transformational Leadership Scale, exploratory factor analysis was performed. During this analysis, four factors emerged. However, few of the items loaded on factors other than the first, and in all but one case, the items were double loaded; i.e., the items loaded on the first factor at a high level and loaded on a second factor at a much lower level. Factor 1 explained 59% of the variance in the 54 items, whereas the other three factors explained between 2% and 3% of the variance each. These data indicated that there was probably one underlying dimension or factor. The factor outcome held constant for both samples. (See Table 58.)

Table 4: Distribution of ratings for transformational leadership behaviors. **Characteristic: Reinforces my self-confidence/indepen-dence (Behavior: Openly expresses confidence in me [Item 27]).**

| Sample | Scale Value | | | | | Mean | S.D. |
	1	2	3	4	5		
Sample 1 Frequency % of Sample	20 4%	39 9%	91 20%	155 35%	141 32%	3.803	1.112
Sample 2 Frequency % of Sample	11 7%	13 9%	36 24%	45 30%	46 30%	3.675	1.203

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 5: Distribution of ratings for transformational leadership behaviors. **Characteristic: Is supportive (Behavior: Builds supportive relationships with me [Item 28]).**

| Sample | Scale Value | | | | | Mean | S.D. |
	1	2	3	4	5		
Sample 1 Frequency % of Sample	23 5%	45 10%	99 22%	158 36%	118 27%	3.684	1.125
Sample 2 Frequency % of Sample	12 8%	19 13%	31 21%	52 35%	36 24%	3.540	1.213

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 6:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Drives out fear (Behavior: Is able to lead me to overcome fear and uncertainty in making changes [Item 29]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	34 8%	55 13%	122 29%	142 33%	73 17%	3.387	1.149
Sample 2 Frequency % of Sample	14 10%	17 12%	39 27%	52 36%	23 16%	3.366	1.172

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 7:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Builds a learning environment (Behavior: Is committed to my growth and development [Item 30]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	35 18%	49 11%	122 28%	137 31%	93 21%	3.468	1.177
Sample 2 Frequency % of Sample	10 7%	21 14%	39 26%	46 31%	34 23%	3.487	1.180

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 8:   Distribution of ratings for transformational leadership behaviors. Characteristic: Is a positive role model (Behavior: Establishes trust and credibility when relating to me [Item 18]).

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	23 5%	32 7%	97 22%	140 32%	152 34%	3.824	1.135
Sample 2 Frequency % of Sample	15 10%	15 10%	20 13%	62 41%	39 26%	3.629	1.247

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 9:   Distribution of ratings for transformational leadership behaviors. Characteristic: Is a positive role model (Behavior: Is a positive example of a "can do" approach [Item 31]).

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	19 4%	39 9%	80 18%	163 37%	135 31%	3.817	1.101
Sample 2 Frequency % of Sample	8 5%	11 7%	33 22%	62 41%	37 25%	3.722	1.078

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 10: Distribution of ratings for transformational leadership behaviors. **Characteristic: Is a positive role model (Behavior: Is a coach (motivates, corrects, builds teamwork, mentors, etc.) [Item 47]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	25 6%	66 15%	108 25%	141 32%	94 22%	3.491	1.156
Sample 2 Frequency % of Sample	14 9%	21 14%	33 22%	50 33%	32 21%	3.433	1.234

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 11: Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages participation/self-expression (Behavior: Actively seeks to understand my perspective [Item 50]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	27 6%	54 12%	130 30%	146 34%	78 18%	3.446	1.109
Sample 2 Frequency % of Sample	12 8%	21 14%	43 29%	52 35%	20 14%	3.318	1.125

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 12: Distribution of ratings for transformational leadership behaviors. **Characteristic: Shares the vision (Behavior: Helps me set meaningful goals [Item 20]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
<u>Sample 1</u> Frequency % of Sample	33 8%	51 12%	124 29%	152 35%	75 17%	3.425	1.132
<u>Sample 2</u> Frequency % of Sample	12 8%	19 13%	40 27%	52 35%	25 17% ·	3.399	1.153

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 13: Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters continuous improvement (Behavior: Is able to help me disengage from past and move into future [Item 54]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
<u>Sample 1</u> Frequency % of Sample	15 4%	33 8%	105 25%	145 34%	124 29%	3.782	1.063
<u>Sample 2</u> Frequency % of Sample	8 6%	13 9%	33 24%	57 41%	29 21%	3.614	1.090

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
· Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 14: Distribution of ratings for transformational leadership behaviors. **Characteristic: Recognizes individual value/abilities (Behavior: Demonstrates trust and confidence in my talents and potential [Item 35]).**

| Sample | Scale Value | | | | | Mean | S.D. |
	1	2	3	4	5		
Sample 1 Frequency	14	40	93	147	150	3.854	1.083
% of Sample	3%	9%	21%	33%	34%		
Sample 2 Frequency	7	14	32	44	50	3.789	1.154
% of Sample	5%	10%	22%	30%	34%		

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 15: Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters initiative and responsibility (Behavior: Encourages me to take initiative and responsibility for my assignments [Item 36]).**

| Sample | Scale Value | | | | | Mean | S.D. |
	1	2	3	4	5		
Sample 1 Frequency	9	16	69	185	162	4.077	.921
% of Sample	2%	4%	16%	42%	37%		
Sample 2 Frequency	5	6	33	51	54	3.960	1.026
% of Sample	3%	4%	22%	34%	36%		

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 16: Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages persistence (Behavior: Fosters in me a high level of commitment and excitement [Item 11]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	29 7%	46 11%	109 25%	153 35%	101 23%	3.573	1.147
Sample 2 Frequency % of Sample	17 11%	21 14%	34 23%	53 36%	23 16%	3.297	1.226

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 17: Distribution of ratings for transformational leadership behaviors. **Characteristic: Emphasizes intrinsic outcomes (Behavior: Recognizes that the betterment of the team is as valuable as the results achieved [Item 25]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	17 4%	41 9%	107 24%	147 33%	128 29%	3.745	1.092
Sample 2 Frequency % of Sample	7 5%	16 11%	30 21%	57 40%	32 23%	3.641	1.100

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 18:   Distribution of ratings for transformational leadership behaviors.
**Characteristic: Advocates ownership/shared leadership
(Behavior: Creates enthusiastic support for the goals and
vision of the business [Item 52]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	24 6%	35 8%	96 22%	162 38%	113 26%	3.709	1.110
Sample 2 Frequency % of Sample	7 5%	17 11%	35 24%	53 36%	36 24%	3.635	1.114

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 19:   Distribution of ratings for transformational leadership behaviors.
**Characteristic: Reinforces my self confidence/indepen-
dence (Behavior: Encourages me to believe in myself
[Item 1]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	25 6%	31 7%	106 24%	151 35%	124 28%	3.728	1.120
Sample 2 Frequency % of Sample	12 8%	18 12%	34 23%	52 35%	31 21%	3.490	1.190

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 20:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Reinforces my self confidence/independence (Behavior: Encourages me to just "do it"! [Item 14]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	19 4%	22 5%	98 22%	150 34%	149 34%	3.886	1.070
Sample 2 Frequency % of Sample	13 9%	16 11%	26 18%	54 37%	36 25%	3.579	1.229

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 21:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Reinforces my self confidence/independence (Behavior: Puts me in situations where I can succeed [Item 39]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	19 4%	28 6%	136 31%	157 36%	93 21%	3.640	1.027
Sample 2 Frequency % of Sample	12 8%	17 12%	34 24%	49 35%	30 21%	3.479	1.195

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 22:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Is supportive (Behavior: Provides the necessary resources, tools and information I need [Item 2]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	6 1%	35 8%	99 22%	183 41%	121 27%	3.851	.955
Sample 2 Frequency % of Sample	1 1%	21 14%	27 18%	66 43%	38 25%	3.778	.995

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 23:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Is supportive (Behavior: Helps remove roadblocks [Item 15]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	19 4%	34 8%	122 28%	155 35%	110 25%	3.689	1.063
Sample 2 Frequency % of Sample	8 5%	19 13%	41 28%	53 36%	28 19%	3.497	1.101

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 24:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Is supportive (Behavior: Is willing to give his/her time when I need it [Item 40]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	11 2%	38 9%	98 22%	166 38%	129 29%	3.824	1.026
Sample 2 Frequency % of Sample	4 3%	22 14%	28 18%	53 35%	45 30%	3.743	1.113

Key: Scale Value 1 = Not at All
      Scale Value 2 = Once in Awhile
      Scale Value 3 = Sometimes
      Scale Value 4 = Fairly Often
      Scale Value 5 = Frequently, If Not Always

Table 25:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Drives out fear (Behavior: When I fail, focuses more on what was learned and less on why things failed [Item 3]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	21 5%	54 13%	125 29%	139 33%	87 20%	3.509	1.100
Sample 2 Frequency % of Sample	7 5%	23 16%	41 29%	50 35%	20 14%	3.376	1.073

Key: Scale Value 1 = Not at All
      Scale Value 2 = Once in Awhile
      Scale Value 3 = Sometimes
      Scale Value 4 = Fairly Often
      Scale Value 5 = Frequently, If Not Always

Table 26: Distribution of ratings for transformational leadership behaviors. **Characteristic: Drives out fear (Behavior: Fosters an environment where knowing about problems or defects is good not bad [Item 16]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	16 4%	26 6%	115 26%	165 38%	114 26%	3.768	1.021
Sample 2 Frequency % of Sample	4 3%	10 7%	45 31%	58 39%	30 20%	3.680	.965

Key: Scale Value 1 = Not at All
      Scale Value 2 = Once in Awhile
      Scale Value 3 = Sometimes
      Scale Value 4 = Fairly Often
      Scale Value 5 = Frequently, If Not Always

Table 27: Distribution of ratings for transformational leadership behaviors. **Characteristic: Builds a learning environment (Behavior: Helps me develop the skills which improve my performance [Item 4]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	18 4%	42 10%	125 28%	175 40%	79 18%	3.581	1.021
Sample 2 Frequency % of Sample	14 10%	21 15%	34 24%	49 34%	25 17%	3.350	1.212

Key: Scale Value 1 = Not at All
      Scale Value 2 = Once in Awhile
      Scale Value 3 = Sometimes
      Scale Value 4 = Fairly Often
      Scale Value 5 = Frequently, If Not Always

Table 28: Distribution of ratings for transformational leadership behaviors. Characteristic: Builds a learning environment (Behavior: Inspires me to do more than I thought I could [Item 17]).

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	25 6%	56 13%	124 29%	146 34%	84 19%	3.478	1.114
Sample 2 Frequency % of Sample	17 12%	21 14%	33 22%	50 34%	26 18%	3.320	1.250

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 29: Distribution of ratings for transformational leadership behaviors. Characteristic: Is a positive model (Behavior: Strives for excellence from self and others [Item 5]).

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	8 2%	16 4%	73 17%	148 34%	196 44%	4.152	.947
Sample 2 Frequency % of Sample	6 4%	7 5%	29 20%	47 32%	59 40%	3.986	1.075

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 30:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Is a positive model (Behavior: Can be counted on to use power and authority in a positive manner (for the good of the team and organization) [Item 41]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	13 3%	39 9%	87 20%	144 33%	156 36%	3.891	1.080
Sample 2 Frequency % of Sample	10 7%	13 9%	34 23%	57 38%	35 23%	3.631	1.135

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 31:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Is a positive model (Behavior: Is a teacher (trains, develops, educates, etc.) [Item 48]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	38 9%	85 20%	139 32%	94 22%	76 18%	3.197	1.198
Sample 2 Frequency % of Sample	19 13%	25 17%	47 32%	38 26%	19 13%	3.088	1.206

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 32:   Distribution of ratings for transformational leadership behaviors. Characteristic: Is a positive model (Behavior: Is a leader (visionary, trail blazer, risk taker, inspirational, change agent, etc.) [Item 49]).

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	32 7%	48 11%	105 24%	118 27%	133 31%	3.624	1.228
Sample 2 Frequency % of Sample	17 11%	17 11%	34 23%	48 32%	32 22%	3.412	1.267

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 33:   Distribution of ratings for transformational leadership behaviors. Characteristic: Is a positive model (Behavior: Acts with integrity in all business transactions [Item 53]).

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	5 1%	24 6%	72 17%	141 33%	191 44%	4.129	.958
Sample 2 Frequency % of Sample	3 2%	9 6%	26 18%	55 38%	51 35%	3.986	.989

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 34:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages participation/self-expression (Behavior: Involves me in meetings, decisions and   programs when appropriate [Item 6]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	14 3%	46 10%	78 18%	134 30%	173 39%	3.912	1.121
Sample 2 Frequency % of Sample	8 5%	18 12%	27 18%	49 32%	52 34%	3.773	1.186

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 35:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages participation/self-expression (Behavior: Encourages me to openly express my feelings and concerns [Item 19]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	23 5%	38 9%	100 23%	136 31%	146 33%	3.777	1.148
Sample 2 Frequency % of Sample	14 9%	21 14%	22 14%	52 34%	44 29%	3.595	1.285

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 36: Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages participation/self-expression (Behavior: Is flexible and open to my input [Item 32]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	21 5%	30 7%	113 26%	142 32%	137 31%	3.777	1.102
Sample 2 Frequency % of Sample	9 6%	17 11%	28 18%	65 42%	36 23%	3.658	1.125

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 37: Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages participation/self-expression (Behavior: Develops a trusting relationship by sharing information [Item 42]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	16 4%	41 9%	93 21%	157 36%	134 30%	3.798	1.084
Sample 2 Frequency % of Sample	16 10%	13 8%	38 25%	50 32%	37 24%	3.513	1.238

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 38: Distribution of ratings for transformational leadership behaviors. **Characteristic: Shares the vision (Behavior: Keeps me focused on the overall direction/vision for our department [Item 7]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency	10	39	75	170	152	3.930	1.029
% of Sample	2%	9%	17%	38%	34%		
Sample 2 Frequency	13	14	35	56	35	3.562	1.186
% of Sample	8%	9%	23%	37%	23%		

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 39: Distribution of ratings for transformational leadership behaviors. **Characteristic: Shares the vision (Behavior: Has a vision for our work group and communicates it often [Item 33]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency	22	42	94	149	133	3.748	1.134
% of Sample	5%	10%	21%	34%	30%		
Sample 2 Frequency	9	20	46	38	37	3.493	1.174
% of Sample	6%	13%	31%	25%	25%		

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 40:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Shares the vision (Behavior: Makes a direct connection between my job and our unit's vision and mission [Item 43]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	15 3%	36 8%	103 24%	151 35%	130 30%	3.793	1.066
Sample 2 Frequency % of Sample	4 3%	20 13%	47 32%	49 33%	29 19%	3.530	1.037

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 41:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters continuous improvement (Behavior: Gives me the freedom and flexibility to experiment [Item 8]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	11 2%	24 5%	74 17%	160 36%	171 39%	4.036	1.000
Sample 2 Frequency % of Sample	11 7%	8 5%	29 19%	47 31%	56 37%	3.854	1.191

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 42:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters continuous improvement (Behavior: Encourages me to focus on what can be done rather than what has always been done [Item 21]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
<u>Sample 1</u> Frequency % of Sample	10 2%	27 6%	91 21%	193 44%	121 27%	3.878	.956
<u>Sample 2</u> Frequency % of Sample	6 4%	13 9%	40 27%	59 39%	32 21%	3.653	1.036

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 43:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters continuous improvement (Behavior: Helps me think about my work in new and unconventional ways [Item 34]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
<u>Sample 1</u> Frequency % of Sample	33 8%	54 12%	130 30%	150 34%	68 16%	3.382	1.120
<u>Sample 2</u> Frequency % of Sample	11 7%	28 19%	43 29%	54 36%	14 9%	3.213	1.084

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 44: Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters continuous improvement (Behavior: Encourages improvement through analysis of every process and action within my control [Item 44]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	20 5%	37 9%	130 31%	157 37%	81 19%	3.569	1.042
Sample 2 Frequency % of Sample	7 5%	19 13%	36 25%	59 42%	21 15%	3.479	1.057

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 45: Distribution of ratings for transformational leadership behaviors. **Characteristic: Fosters continuous improvement (Behavior: Helps me visualize the business through the eyes of the customer, i.e., is highly customer conscious [Item 51]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	14 3%	37 9%	88 20%	148 34%	143 33%	3.858	1.076
Sample 2 Frequency % of Sample	5 3%	16 11%	28 19%	62 42%	36 24%	3.735	1.055

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 46:   Distribution of ratings for transformational leadership behaviors.
             **Characteristic: Recognizes individual value/abilities (Be-
             havior: Gives recognition for my efforts and contribution
             [Item 9]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	14 3%	35 8%	88 20%	175 40%	131 30%	3.844	1.036
Sample 2 Frequency % of Sample	11 7%	20 13%	39 26%	39 26%	43 28%	3.546	1.233

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 47:   Distribution of ratings for transformational leadership behaviors.
             **Characteristic: Recognizes individual value/abilities
             (Behavior: Shows respect for my unique worth and
             contribution to our work groups [Item 22]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	19 4%	43 10%	94 21%	161 36%	127 29%	3.752	1.101
Sample 2 Frequency % of Sample	7 5%	21 14%	30 20%	56 37%	38 25%	3.638	1.137

Key: Scale Value 1 = Not at All
       Scale Value 2 = Once in Awhile
       Scale Value 3 = Sometimes
       Scale Value 4 = Fairly Often
       Scale Value 5 = Frequently, If Not Always

Table 48:   Distribution of ratings for transformational leadership behaviors.
**Characteristic: Fosters initiative and responsibility
(Behavior: Wants me to get involved when I see a need
and not wait to be told or given permission [Item 10]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	9 2%	14 3%	62 14%	137 31%	223 50%	4.238	.945
Sample 2 Frequency % of Sample	9 6%	5 3%	30 20%	52 34%	57 37%	3.935	1.110

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 49:   Distribution of ratings for transformational leadership behaviors.
**Characteristic: Fosters initiative and responsibility
(Behavior: Is willing to delegate the appropriate authority
to achieve the desired results [Item 23]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	13 3%	25 6%	82 19%	158 36%	163 37%	3.982	1.025
Sample 2 Frequency % of Sample	8 5%	13 9%	37 25%	56 38%	34 23%	3.642	1.094

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 50:   Distribution of ratings for transformational leadership behaviors.
Characteristic: Fosters initiative and responsibility
(Behavior: Holds me accountable for my actions [Item
45]).

| Sample | Scale Value | | | | | Mean | S.D. |
	1	2	3	4	5		
Sample 1 Frequency % of Sample	1 0%	6 1%	36 8%	155 35%	245 55%	4.438	.720
Sample 2 Frequency % of Sample	1 1%	4 3%	17 12%	59 40%	66 45%	4.259	.820

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 51:   Distribution of ratings for transformational leadership behaviors.
Characteristic: Encourages persistence (Behavior:
Believes that if you are right and things don't work out, try,
try, try again [Item 24]).

| Sample | Scale Value | | | | | Mean | S.D. |
	1	2	3	4	5		
Sample 1 Frequency % of Sample	15 3%	33 8%	117 27%	164 38%	105 24%	3.717	1.024
Sample 2 Frequency % of Sample	7 5%	14 10%	34 24%	49 35%	37 26%	3.674	1.118

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 52:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Encourages persistence (Behavior: Encourages a long run, patient, disciplined approach versus a "flash in the pan" approach [Item 37]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	17 4%	40 9%	138 32%	137 32%	95 22%	3.593	1.056
Sample 2 Frequency % of Sample	6 4%	17 12%	43 31%	49 36%	23 17%	3.478	1.048

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 53:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Emphasizes intrinsic outcomes (Behavior: Emphasizes that doing the right thing is just as important as the eventual outcomes or results [Item 12]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	15 3%	32 7%	92 21%	176 41%	118 27%	3.808	1.029
Sample 2 Frequency % of Sample	6 4%	15 10%	39 27%	55 38%	29 20%	3.597	1.053

Key: Scale Value 1 = Not at All
        Scale Value 2 = Once in Awhile
        Scale Value 3 = Sometimes
        Scale Value 4 = Fairly Often
        Scale Value 5 = Frequently, If Not Always

Table 54:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Advocates ownership/shared leadership (Behavior: Encourages support of the business policies, procedures and positions of this organization [Item 13]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	10 2%	17 4%	65 15%	194 44%	157 35%	4.063	.925
Sample 2 Frequency % of Sample	4 3%	11 7%	17 11%	67 44%	52 34%	4.007	.997

Key: Scale Value 1 = Not at All
      Scale Value 2 = Once in Awhile
      Scale Value 3 = Sometimes
      Scale Value 4 = Fairly Often
      Scale Value 5 = Frequently, If Not Always

Table 55:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Advocates ownership/shared leadership (Behavior: Conveys ownership by talking in terms of our customer, our budget, our business [Item 26]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	16 4%	19 4%	74 17%	139 32%	190 43%	4.068	1.050
Sample 2 Frequency % of Sample	2 1%	15 10%	25 17%	59 39%	49 33%	3.920	1.007

Key: Scale Value 1 = Not at All
      Scale Value 2 = Once in Awhile
      Scale Value 3 = Sometimes
      Scale Value 4 = Fairly Often
      Scale Value 5 = Frequently, If Not Always

Table 56:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Advocates ownership/shared leadership (Behavior: Emphasizes that searching for changes to better satisfy customers and remain competitive contributes to staying in business [Item 38]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	9 2%	25 6%	76 18%	147 34%	175 41%	4.051	1.000
Sample 2 Frequency % of Sample	3 2%	13 9%	26 17%	65 44%	42 28%	3.872	.988

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 57:   Distribution of ratings for transformational leadership behaviors. **Characteristic: Advocates ownership/shared leadership (Behavior: Wants me to relate to others, make decisions, utilize equipment and other resources as if it were my own business [Item 46]).**

Sample	Scale Value					Mean	S.D.
	1	2	3	4	5		
Sample 1 Frequency % of Sample	7 2%	19 4%	73 17%	161 37%	176 40%	4.101	.939
Sample 2 Frequency % of Sample	7 5%	8 5%	34 23%	52 35%	46 31%	3.830	1.081

Key: Scale Value 1 = Not at All
Scale Value 2 = Once in Awhile
Scale Value 3 = Sometimes
Scale Value 4 = Fairly Often
Scale Value 5 = Frequently, If Not Always

Table 58:   Fifty-four item Transformational Leadership Scale exploratory
factor analysis, by sample.

SAMPLE 1				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
31	.86345			
47	.85376			
54	.84898			
28	.84662			
30	.84299			
18	.83749			
11	.83194			
42	.82716			
22	.82352			
49	.82200			
20	.82156			
50	.81912			
35	.81907			
32	.81738			
43	.81697			
29	.81659			
34	.81354			
27	.81270			
33	.81158			
17	.80208			
52	.80172	.37609		
16	.79164			
41	.78363			
21	.78166			

Table 58:   Continued.

SAMPLE 1				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
39	.78013			
44	.77369			
36	.77248			
23	.77220			
4	.77048			
9	.76953			
19	.76786			
24	.76744			
37	.76674			
15	.76493			
51	.76417			
12	.75601			
7	.75450			
1	.75311			
25	.74865			
48	.74597			
40	.73558			
5	.73122			
38	.72359	.39773		
3	.72007			
26	.71959			
2	.71375			
6	.71229			
10	.70281		.35931	
46	.69930			

Table 58: Continued.

SAMPLE 1				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
53	.68958			
8	.66900		.36382	
13	.65625		.35910	
14	.56266		.42767	
45	.39708			

FINAL STATISTICS: SAMPLE 1

Factor	Eigenvalue	% of Variation
1	32.00209	59.3
2	1.82927	3.4
3	1.51411	2.8
4	1.08572	2.0

SAMPLE 2				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
28	.88732			
36	.87479			
18	.86908			
50	.85369			
41	.85290			
20	.85223			
31	.85052			
27	.84995			
35	.84788			
19	.84347			

Table 58: Continued.

SAMPLE 2				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
9	.84054			
30	.84009			
47	.83989			
10	.83700			
54	.83321			
52	.83029			
49	.82923			
44	.82210			
23	.82192			
32	.82185			
22	.82150			
25	.82027			
29	.81715			
42	.81121			
24	.80563			
34	.79824			
8	.79690			
17	.79538			
2	.78948			
39	.78746			
1	.78630			
48	.77368			
11	.77350			
15	.77024			
16	.76817			

Table 58:   Continued.

SAMPLE 2				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
33	.76777			
21	.76632			
6	.76327			
43	.76266			
37	.75316			
12	.74887			
7	.74241			
5	.74086			
38	.73650	.39011		
3	.72840			
4	.72675			
53	.71525			
51	.71324			
14	.67928			
46	.66359			
13	.66305	.49516		
26	.66141			
40	.52311			.42092
45				.47953

FINAL STATISTICS: SAMPLE 2

Factor	Eigenvalue	% of Variation
1	33.05182	61.2
2	1.87071	3.5
3	1.38930	2.6
4	1.31897	2.4

To sharpen the focus of the Transformational Leadership Scale and to increase the precision and manageability of this instrument, the Exploratory Factor Analysis allowed the identification of 15 items that represented the highest loadings across both samples. Tables 4 through 18 contained frequency distributions of those 15 items, by sample. The exploratory factor analysis was repeated using the 15-item scale. As a result, one factor was identified that explained 69.9% of the variance in Sample 1 and 72.5% of the variance in Sample 2. (See Table 59.)

Table 59: Fifteen-item Transformational Leadership Scale exploratory factor analysis, by sample.

SAMPLE 1				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
28	.89036			
30	.86530			
47	.86494			
35	.86113			
31	.85891			
27	.85534			
18	.85178			
54	.84964			
50	.83776			
29	.83726			
11	.83462			
20	.81430			
52	.77850			

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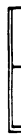
Table 59:   Continued.

36	.77602			
25	.75401			

FINAL STATISTICS: SAMPLE 1

Factor	Eigenvalue	% of Variation
1	10.48724	69.9

SAMPLE 2				
Item No.	Factor 1	Factor 2	Factor 3	Factor 4
28	.90213			
50	.87659			
35	.86788			
30	.86399			
47	.86393			
54	.86373			
36	.86098			
27	.85358			
31	.85253			
18	.85147			
29	.83618			
20	.83512			
52	.82029			
11	.81389			
25	.80931			

Table 59:   Continued.

FINAL STATISTICS: SAMPLE 2

Factor 1	Eigenvalue	% of Variation
1	10.87691	72.5

Results of Hypothesis Testing

The purpose of the research was to measure the strength of the linear association between transformational leadership behaviors and employee loyalty, employee commitment, and employee perceptions of organizational justice. For this reason, all of the research hypotheses were tested using correlation coefficients. In the following pages, each hypothesis is restated, followed by the results for that hypothesis.

Research Hypothesis 1

Hypothesis 1:   There is a significant positive relationship between transformational leadership behaviors and employee loyalty.

Null Hypothesis 1:   There is no significant relationship between transformational leadership behaviors and employee loyalty.

A high correlation was found between the transformational leadership score and the loyalty score (Table 60). For Sample 1, r = .7977, and for Sample 2, r = .7699. Both coefficients were statistically significant, with p = .000. Thus, Null Hypothesis 1 was rejected. In Sample 1, approximately 63.6% of the variance in the loyalty score was explained by the transformational leadership score (R squared = .6363). In Sample 2, approximately 59.3% of the variance

Table 60:   Fifteen-item Transformational Leadership Scale correlation coefficients, by sample.

SAMPLE 1

	Loyalty	Distributive Justice	Interactional Procedural Justice	Formal Procedural Justice	Affective Commitment	Continuance Commitment
Transformational Leadership Behaviors	.7977 p = .000	.5128 p = .000	.8147 p = .000	.5570 p = .000	.4048 p = .000	.0457 p = .187
Loyalty (LMX)		.4344 p = .000	.7406 p = .000	.4599 p = .000	.3734 p = .000	.0182 p = .357
Distributive Justice			.6174 p = .000	.6068 p = .000	.4206 p = .000	.1186 p = .007
Interactional Procedural Justice				.7053 p = .000	.4666 p = .000	.0870 p = .039
Formal Procedural Justice					.4816 p = .000	.1182 p = .009
Affective Commitment						.2309 p = .000

Table 60: Continued.

SAMPLE 2

	Loyalty	Distributive Justice	Interactional Procedural Justice	Formal Procedural Justice	Affective Commitment	Continuance Commitment
Transformational Leadership Behaviors	.7699 p = .000	.5117 p = .000	.8931 p = .000	.6761 p = .000	.3999 p = .000	.0567 p = .273
Loyalty (LMX)		.4303 p = .000	.6911 p = .000	.5408 p = .000	.3817 p = .000	-.1103 p = .104
Distributive Justice			.5787 p = .000	.4884 p = .000	.3126 p = .000	.1511 p = .036
Interactional Procedural Justice				.6902 p = .000	.3707 p = .000	-.0112 p = .448
Formal Procedural Justice					.2792 p = .000	-.0085 p = .461
Affective Commitment						.0438 p = .305

in the loyalty score was explained by the transformational leadership score (R squared = .5927).

Research Hypothesis 2

Hypothesis 2: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of distributive justice.

Null Hypothesis 2: There is no significant relationship between transformational leadership behaviors and employee perceptions of distributive justice.

A high correlation was found between the transformational leadership score and the distributive justice score (Table 60). For Sample 1, r = .5128, and for Sample 2, r = .5117. Both coefficients were statistically significant, with p = .000. Thus, Null Hypothesis 2 was rejected. In Sample 1, approximately 16.3% of the variance in the distributive justice score was explained by the transformational leadership score (R squared = .2630). In Sample 2, approximately 26.2% of the variance in the distributive justice score was explained by the transformational leadership score (R squared = .2628).

Research Hypothesis 3

Hypothesis 3: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice.

Null Hypothesis 3: There is no significant relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice.

A high correlation was found between the transformational leadership score and the interactional procedural justice score (Table 60). For Sample 1,

.8147, and for Sample 2, r = .8931. Both coefficients were statistically significant, with p = .000. Thus, Null Hypothesis 3 was rejected. In Sample 1, approximately 66.4% of the variance in the interactional justice score was explained by the transformational leadership score (R squared = .6637). In Sample 2, approximately 79.8% of the variance in the interactional justice score was explained by the transformational leadership score (R squared = .7976).

Research Hypothesis 4

Hypothesis 4: There is a significant positive relationship between transformational leadership behaviors and employees' perceptions of formal procedural justice.

Null Hypothesis 4: There is no significant relationship between transformational leadership behaviors and employee perceptions of formal procedural justice.

A high correlation was found between the transformational leadership score and the formal procedural justice score (Table 60). For Sample 1, r = .5570, and for Sample 2, r = .6761. Both coefficients were statistically significant, with p = .000. Thus, Null Hypothesis 4 was rejected. In Sample 1, approximately 31% of the variance in the formal procedural justice score was explained by the transformational leadership score (R squared = .3102). In Sample 2, approximately 45.7% of the variance in the formal procedural justice score was explained by the transformational leadership score (R squared = .4571).

Research Hypothesis 5

Hypothesis 5: There is a significant positive relationship between transformational leadership behaviors and affective commitment.

Null Hypothesis 5: There is no significant relationship between transformational leadership behaviors and affective commitment.

A high correlation was found between the transformational leadership score and the affective commitment score (Table 60). For Sample 1, $r = .4048$, and for Sample 2, $r = .3999$. Both coefficients were statistically significant, with $p = .000$. Thus, Null Hypothesis 5 was rejected. In Sample 1, approximately 16.4% of the variance in the affective commitment score was explained by the transformational leadership score (R squared $= .1637$). In Sample 2, approximately 16.0% of the variance in the affective commitment score was explained by the transformational leadership score (R squared $= .1599$).

Research Hypothesis 6

Hypothesis 6: There is a significant positive relationship between transformational leadership behaviors and continuance commitment.

Null Hypothesis 6: There is no significant relationship between transformational leadership behaviors and continuance commitment.

No correlation was found between the transformational leadership score and the continuance commitment score (Table 60). For Sample 1, $r = .0457$, and for Sample 2, $r = .0567$. Both coefficients were statistically insignificant, with $p = .273$ for Sample 1 and $p = .187$ for Sample 2. Thus, Null Hypothesis 6 was not rejected. In Sample 1, approximately .2% of the variance in the continuance commitment score was explained by the transformational leadership score (R squared $= .0021$). In Sample 2, approximately .3% of the variance in the continuance commitment score was explained by the transformational leadership score (R squared $= .0032$).

The correlation coefficient matrix (Table 60) also highlights the relationship between the dependent variables. Loyalty, distributive justice, interactional procedural justice, formal procedural justice, and affective commitment were highly correlated to each other.

Recognizing the possible risk of multicollinearity associated with the dependent variables, partial correlation coefficients were calculated to measure the relationship between the independent variable and each dependent variable while controlling the effect of the other dependent variables (Table 61). The transformational leadership score and the loyalty score continued to be highly correlated for both samples (r = .51 and .39, respectively) and statistically significant (p = .000), controlling for the effect of distributive justice, interactional procedural justice, formal procedural justice, and affective commitment.

In addition, the transformational leadership score and the interactional procedural justice score continued to be highly correlated for both samples (r = .43 and .68, respectively) and statistically significant (p = .000), controlling for the effect of loyalty, distributive justice, formal procedural justice, and affective commitment.

Further Exploration of the Research Data

In this section, the research data are further explored to investigate any differences between the two samples and between the respondents who reported directly to two different levels of management. A series of null hypotheses were constructed to test for statistically significant differences between groups.

Table 61: Fifteen-item Transformational Leadership Scale partial correlation coefficients.

SAMPLE 1

	Loyalty	Distributive Justice	Interactional Procedural Justice	Formal Procedural Justice	Affective Commitment
Transformational leadership behaviors	.51 $p = .000$	.04 $p = .239$	.43 $p = .000$	.01 $p = .437$	-.03 $p = .278$

SAMPLE 2

	Loyalty	Distributive Justice	Interactional Procedural Justice	Formal Procedural Justice	Affective Commitment
Transformational leadership behaviors	.39 $p = .000$	.01 $p = .474$	.68 $p = .000$	.01 $p = .447$	.04 $p = .346$

Research Hypothesis 7

Hypothesis 7:   There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the organization worked for.

Null Hypothesis 7a: There is no significant difference in transformational leadership scores, based on the organization worked for.

As shown in Table 62, the transformational leadership scores were found not to differ significantly between the two organization samples: Sample 1— information systems provider (mean = 55.08)—and Sample 2—manufacturing firm (mean = 53.99). The F-value was .5589, with p = .4550. Because no statistically significant difference (at the p = .05 level) in transformational leadership scores was found between the two samples, Null Hypothesis 7a was not rejected. The results indicated that the organization sampled was not a significant factor when examining transformational leadership behaviors.

Null Hypothesis 7b: There is no significant difference in employee loyalty, based on the organization worked for.

As shown in Table 63, the loyalty scores based on the LMX-6 scale were found to differ significantly between the two organization samples: Sample information systems provider (mean = 24.00)—and Sample 2—manufacturing firm (mean = 22.96). The F-value was 7.74, with p = .0056. Because a statistically significant difference (at the p = .05 level) in loyalty scores was found between the two samples, Null Hypothesis 7b was rejected. The results indicated that the organization sampled was a significant factor when examining employee loyalty.

Table 62: Analysis of variance by sample for the 15-item Transformational Leadership Scale.

Sample	N	Mean	Std. Dev.
1	396	55.0808	13.9083
2	123	53.9919	14.7457
Total	519	54.8227	14.1044

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	111.2857	111.2857	1	.5589	.4550
Within groups	102936.4060	199.1033	517		
Total	103047.6917		518		

Table 63: Analysis of variance by sample for the Loyalty (LMX-6) Scale.

Sample	N	Mean	Std. Dev.
1	432	24.0000	3.7940
2	141	22.9645	3.9649
Total	573		

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	113.9766	113.9766	1	7.7432	.0056
Within groups	8404.8227	14.7195	571		
Total	8518.7993		572		

Null Hypothesis 7c: There is no significant difference in employee perceptions of distributive justice, based on the organization worked for.

As shown in Table 64, the distributive justice scores were found not to differ significantly between the two organizations sampled: Sample 1–information systems provider (mean = 19.28)–and Sample 2–manufacturing firm (mean = 19.03). The F-value was .1810, with p = .6707. Because no statistically significant difference (at the p = .05 level) in distributive justice scores was found between the two samples, Null Hypothesis 7c was not rejected. The results indicated that the organization sampled was not a significant factor when examining employee perceptions of distributive justice.

Table 64:   Analysis of variance by sample for the Distributive Justice Scale.

Sample	N	Mean	Std. Dev.
1	443	19.2777	6.3920
2	153	19.0261	6.0436
Total	596	19.2131	6.3003

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	7.1937	7.1937	1	.1810	.6707
Within groups	23610.7442	39.7487	594		
Total	23617.9379		595		

Null Hypothesis 7d: There is no significant difference in employee perceptions of interactional procedural justice, based on the organization worked for.

As shown in Table 65, the interactional procedural justice scores were found not to differ significantly between the two organizations sampled: Sample 1–information systems provider (mean = 37.14)–and Sample 2–manufacturing firm (mean = 36.61). The F-value was .4650, with p = .4956. Because no statistically significant difference (at the p = .05 level) in interactional procedural justice scores was found between the two samples, Null Hypothesis 7d was not rejected. The results indicated that the organization sampled was not a significant factor when examining employee perceptions of interactional procedural justice.

Table 65:   Analysis of variance by sample for interactional procedural justice.

Sample	N	Mean	Std. Dev.
1	428	37.1355	7.9930
2	146	36.6096	8.2054
Total	574	37.0017	8.0436

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	30.1115	30.1115	1	.4650	.4956
Within groups	37042.8868	64.7603	572		
Total	37072.9983		573		

<u>Null Hypothesis 7e</u>: There is no significant difference in formal procedural justice scores, based on the organization worked for.

As shown in Table 66, the formal procedural justice scores were found to differ significantly between the two organizations sampled: Sample 1—information systems provider (mean = 24.80)—and Sample 2—manufacturing firm (mean = 26.15). The F-value was 4.0149, with p = .0456. Because there was a statistically significant difference (at the p = .05 level) in formal procedural justice scores between the two samples, Null Hypothesis 7e was rejected. The results indicated that the organization sampled was a significant factor when examining employee perceptions of formal procedural justice.

Table 66:   Analysis of variance by sample for formal procedural justice.

Sample	N	Mean	Std. Dev.
1	422	24.8033	7.1914
2	144	26.1528	6.3094
Total	566	25.1466	6.9969

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	195.5144	195.5144	1	4.0149	.0456
Within groups	27465.3142	48.6974	564		
Total	27660.8286		565		

<u>Null Hypothesis 7f</u>:   There is no significant difference in affective commitment scores, based on the organization worked for.

As shown in Table 67, the affective commitment scores were found not to differ significantly between the two organizations sampled: Sample 1—information systems provider (mean = 35.13)—and Sample 2—manufacturing firm (mean = 36.21). The F-value was 3.6092, with p = .0582. Because no statistically significant difference (at the p = .05 level) in affective commitment scores was found between the two samples, Null Hypothesis 7f was not rejected. The results indicated that the organization sampled was not a significant factor when examining affective commitment.

Table 67:   Analysis of variance by sample for affective commitment.

Sample	N	Mean	Std. Dev.
1	422	35.1327	5.9156
2	147	36.2109	5.9751
Total	569	35.4112	5.9445

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	126.7367	126.7367	1	3.6092	.0582
Within groups	19445.0313	35.1764	567		
Total	20071.7680		568		

Null Hypothesis 7g: There is no significant difference in continuance commitment scores, based on the organization worked for.

As shown in Table 68, the continuance commitment scores were found to differ significantly between the two organizations sampled: Sample 1—

information systems provider (mean = 32.59)--and Sample 2--manufacturing firm (mean = 30.09). The F-value was 16.2860, with p = .0001. Because a statistically significant difference (at the p = .05 level) in continuance commitment scores was found between the two samples, Null Hypothesis 7g was rejected. The results indicated that the organization sampled was a significant factor when examining continuance commitment.

Table 68:   Analysis of variance by sample for continuance commitment.

Sample	N	Mean	Std. Dev.
1	424	32.5943	5.1964
2	144	30.6042	4.8577
Total	568	32.0898	5.1814

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	425.7569	425.7569	1	16.2860	.0001
Within groups	14796.6639	26.1425	566		
Total	15222.4208		567		

The results of all of the hypothesis tests discussed above can be summarized as follows:

1.   There was no significant difference in transformational leadership scores, distributive justice scores, interactional procedural justice scores, or affective commitment scores (at the p = .05 level) between the two organizations sampled.

2. There was a significant difference in loyalty scores, formal procedural justice scores and continuance commitment scores (at the p = .05 level) between the two organizations sampled.

Research Hypothesis 8

> Hypothesis 8: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the two levels of management to which respondents reported.

> Null Hypothesis 8a: There is no significant difference in transformational leadership scores, based on the two levels of management to which respondents reported.

As shown in Table 69, the transformational leadership scores were found to differ significantly between respondents reporting to the two different levels of management. This was true for both organizations sampled: Sample 1–respondents who reported to first-level managers (mean = 51.98) and respondents who reported to middle-level managers (mean = 58.24), with an F-value of 21.1073 and p = .0000–and Sample 2–respondents who reported to first-level managers (mean = 52.81) and respondents who reported to middle-level managers (mean = 68.89), with an F-value of 10.6988 and p = .0014.

Because a statistically significant difference (at the p = .05 level) in transformational leadership scores was found between the respondents who reported to two different levels of management, in both samples, Null Hypothesis 8a was rejected. The results indicated that whether a respondent reported to a first-level manager or a middle-level manager was a significant factor when examining transformational leadership behaviors.

Table 69: Analysis of variance by sample, by management level, for the 15-item Transformational Leadership Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	200	51.9800	15.1856
Middle	196	58.2449	11.6870
Total	396	55.0808	13.9083

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	3885.2492	3885.2492	1	21.1073	.0000
Within groups	72524.1649	184.0715	394		
Total	76409.4141		395		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	114	52.8158	14.6442
Middle	9	68.8889	4.1667
Total	123	53.9919	14.7457

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	2154.9714	2154.9714	1	10.6988	.0014
Within groups	24372.0205	201.4217	121		
Total	26526.9919		122		

<u>Null Hypothesis 8b</u>: There is no significant difference in loyalty scores, based on the two different levels of management to which respondents reported.

As shown in Table 70, the loyalty scores were found to differ significantly between respondents who reported to two different levels of management. This was true for both organizations sampled: Sample 1—respondents who reported to first-level managers (mean = 23.25) and respondents who reported to middle-level managers (mean = 24.80), with an F-value of 18.7022 and p = .0000—and Sample 2—respondents who reported to first-level managers (mean = 22.72) and respondents who reported to middle-level managers (mean = 26.20), with an F-value of 7.5002 and p = .0070.

Because a statistically significant difference (at the p = .05 level) in loyalty scores was found between the respondents who reported to two different levels of management, in both samples, Null Hypothesis 8b was rejected. The results indicated that whether a respondent reported to a first-level manager or a middle-level manager was a significant factor when examining employee loyalty.

<u>Null Hypothesis 8c</u>: There is no significant difference in distributive justice scores, based on the two different levels of management to which respondents reported.

As shown in Table 71, the distributive justice scores were found not to differ significantly between respondents who reported to two different levels of management. This was true for both organizations sampled: Sample 1— respondents who reported to first-level managers (mean = 19.18) and respondents who reported to middle-level managers (mean = 19.38), with an F-value of .1126 and p = .7374—and Sample 2—respondents who reported to first-

Table 70:   Analysis of variance by sample, by management level, for the Loyalty Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	224	23.2545	4.0237
Middle	208	24.8029	3.35850
Total	432	24.0000	3.7940

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	258.5862	258.5862	1	18.7022	.0000
Within groups	5945.4138	13.8265	430		
Total	6204.0000		431		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	131	22.7176	3.9832
Middle	10	26.2000	1.6865
Total	141	22.9645	3.9649

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	112.6731	112.6731	1	7.5002	.0070
Within groups	2088.1496	15.0227	139		
Total	2200.8227		140		

Table 71: Analysis of variance by sample, by management level, for the Distributive Justice Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	229	19.1790	6.3099
Middle	214	19.3832	6.4919
Total	443	19.2777	6.3920

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	4.6099	4.6099	1	.1126	.7374
Within groups	18054.2388	40.9393	441		
Total	18058.8488		442		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	143	19.0350	6.0251
Middle	10	18.9000	6.6408
Total	153	19.0261	6.0436

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	.1703	.1703	1	.0046	.9458
Within groups	5551.7252	36.7664	151		
Total	5551.8954		152		

level managers (mean = 19.04) and respondents who reported to middle-level managers (mean = 18.90), with an F-value of .0046 and p = .9458.

Because no statistically significant difference (at the p = .05 level) in distributive justice scores was found between the respondents who reported to two different levels of management, in both samples, Null Hypothesis 8c was not rejected. The results indicated that whether a respondent reported to a first-level manager or a middle-level manager was not a significant factor when examining distributive justice scores.

> Null Hypothesis 8d: There is no significant difference in interactional procedural justice scores, based on the two different levels of management to which the respondents reported.

As shown in Table 72, the interactional procedural justice scores were found to differ significantly between respondents who reported to two different levels of management. This was true for both organizations sampled: Sample 1--respondents who reported to first-level managers (mean = 36.08) and respondents who reported to middle-level managers (mean = 38.24), with an F-value of 7.9845 and p = .0049--and Sample 2--respondents who reported to first-level managers (mean = 36.13) and respondents who reported to middle-level managers (mean = 43.10), with an F-value of 6.9943 and p = .0091.

Because a statistically significant difference (at the p = .05 level) in interactional procedural justice scores was found between the respondents who reported two different levels of management, in both samples, Null Hypothesis 8d was rejected. The results indicated that whether respondents reported to a

Table 72: Analysis of variance by sample, by management level, for the Interactional Procedural Justice Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	219	36.0776	8.3993
Middle	209	38.2440	7.4028
Total	428	37.1355	7.9930

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	501.9048	501.9048	1	7.9845	.0049
Within groups	26778.2354	62.8597	426		
Total	27280.1402		427		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	136	36.1324	8.2353
Middle	10	43.1000	4.1486
Total	146	36.6096	8.2054

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	452.2289	452.2289	1	6.9943	.0091
Within groups	9310.5176	64.6564	144		
Total	9762.7466		145		

first-level manager or a middle-level manager was a significant factor when examining interactional procedural justice.

> Null Hypothesis 8e: There is no significant difference in formal procedural justice scores, based on the two different levels of management to which respondents reported.

As shown in Table 73, the formal procedural justice scores were found not to differ significantly between respondents in Sample 1 who reported to two different levels of management; but in Sample 2, the scores were found to differ significantly between respondents who reported to two different levels of management: Sample 1--respondents who reported to first-level managers (mean = 24.61) and respondents who reported to middle-level managers (mean = 25.00), with an F-value of .3156 and p = .5746--and Sample 2--respondents who reported to first-level managers (mean = 25.80) and respondents who reported to middle-level managers (mean = 30.90), with an F-value of 6.3095 and p = .0131.

Because no statistically significant difference (at the p = .05 level) in formal procedural justice scores was found between respondents who reported to two different levels of management in Sample 1, Null Hypothesis 8e was not rejected. However, because a statistically significant difference (at the p = .05 level) in formal procedural justice scores was found between respondents who reported to two different levels of management in Sample 2, Null Hypothesis 8e was rejected. The results were inconclusive in indicating whether a respondent's reporting to a first-level or a middle-level manager was a significant factor when examining employee perceptions of formal procedural justice.

Table 73:   Analysis of variance by sample, by management level, for the
Formal Procedural Justice Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	216	24.6111	7.4382
Middle	206	25.0049	6.9356
Total	422	24.8033	

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	16.3469	16.3469	1	.3156	.5746
Within groups	21756.3285	51.8008	420		
Total	21772.6754		421		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	134	25.7985	6.2550
Middle	10	30.9000	5.2377
Total	144	26.1528	6.3094

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	242.1792	242.1792	1	6.3095	.0131
Within groups	5450.4597	38.3835	142		
Total	5692.6389		143		

Hypothesis 8f: There is no significant difference in affective commitment scores, based on the two different levels of management to which respondents reported.

As shown in Table 74, the affective commitment scores were found to differ significantly between respondents who reported to the two different levels of management. This was true for both organizations sampled: Sample 1--respondents who reported to first-level managers (mean = 34.51) and respondents who reported to middle-level managers (mean = 35.80) with an F-value of 5.0470 and p = .0252--and Sample 2--respondents who reported to first-level managers (mean = 35.71) and respondents who reported to middle-level managers (mean = 43.10), with an F-value of 15.6999 and p = .0001.

Because a statistically significant difference (at the p = .05 level) in affective commitment scores was found between respondents who reported to different levels of management, in both samples, Null Hypothesis 8f was rejected. The results indicated that whether a respondents reported to a first-level manager or a middle-level manager was a significant factor when examining affective commitment.

Null Hypothesis 8g: There is no significant difference in continuance commitment scores, based on the two different levels of management to which respondents reported.

As shown in Table 75, the continuance commitment scores were found not to differ significantly between respondents who reported to the two different levels of management. This was true for both organizations sampled: Sample 1--respondents who reported to first-level managers (mean = 32.30) and respondents who reported to middle-level managers (mean = 32.92), with an F-

Table 74:   Analysis of variance by sample, by management level, for the Affective Commitment Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	217	34.5069	6.0163
Middle	205	35.7951	5.7477
Total	422	35.1327	5.9156

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	174.9340	174.9340	1	5.0470	.0252
Within groups	14557.6348	34.6610	420		
Total	14732.5687		421		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	137	35.7080	5.8387
Middle	10	43.1000	2.7264
Total	147	36.2109	5.9751

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	509.2414	509.2414	1	15.6999	.0001
Within groups	4703.2212	32.4360	145		
Total	5212.4626		146		

Table 75:   Analysis of variance by sample, by management level, for the Continuance Commitment Scale.

SAMPLE 1			
Mgt. Level	N	Mean	Std. Dev.
First	222	32.2973	5.2720
Middle	202	32.9208	5.1052
Total	424	32.5943	5.1964

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	41.1154	41.1154	1	1.5245	.2176
Within groups	11381.1111	26.9695	422		
Total	11422.2264		423		

SAMPLE 2			
Mgt. Level	N	Mean	Std. Dev.
First	134	30.7463	4.7346
Middle	10	28.7000	6.2725
Total	144	30.6042	4.8577

Source of Variation	Sum of Squares	Mean Squares	df	F-Ratio	F-Prob.
Between groups	38.9644	38.9644	1	1.6588	.1999
Within groups	3335.4731	23.4892	142		
Total	3374.4375		143		

value of 1.5245 and p = .2176--and Sample 2--respondents who reported to first-level managers (mean = 30.75) and respondents who reported to middle-level managers (mean = 28.70), with an F-value of 1.6588 and p = .1999.

Because a statistically significant difference (at the p = .05 level) in continuance commitment scores was not found between the respondents who reported to the two different levels of management, in both samples, Null Hypothesis 8g was not rejected. The results indicated that whether a respondent reported to a first-level manager or a middle-level manager was not a significant factor when examining continuance commitment.

The results of all of the hypothesis tests discussed above can be summarized as follows:

1.   In Sample 1, there was no significant difference in distributive justice scores, formal procedural justice scores, or continuance commitment scores (at the p = .05 level) between respondents who reported to first-level managers and respondents who reported to middle-level managers.

2.   In Sample 1, there was a significant difference in transformational leadership scores, loyalty scores, interactional procedural justice scores, and affective commitment scores (at the p = .05 level) between respondents who reported to first-level managers and respondents who reported to middle-level managers.

3.   In Sample 2, there was no significant difference in distributive justice scores and continuance commitment scores (at the p = .05 level) between

respondents who reported to first-level managers and respondents who reported to middle-level managers.

4.   In Sample 2, there was a significant difference in transformational leadership scores, loyalty scores, interactional procedural justice scores, formal procedural justice scores, and affective commitment scores (at the $p = .05$ level) between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Summary

Descriptive statistics, results of hypothesis testing, and related research data were presented in this chapter. The research hypotheses were supported by the results of the statistical analysis with quantitative data. It was found that there was a relationship between the transformational leadership score and employee loyalty, employee perceptions of distributive justice, employee perceptions of interactional procedural justice, employee perceptions of formal procedural justice, and affective commitment. In addition, it was found that there was no relationship between the transformational leadership score and continuance commitment.

The summary, findings, conclusions, recommendations, and reflections from the data analysis are presented in Chapter IV.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, RECOMMENDATIONS,

AND REFLECTIONS

Summary

Purpose of the Study

The researcher's purpose in this study was to determine whether a relationship existed between transformational leadership behavior and employee loyalty, commitment, and perceptions of organizational justice. Participants were employees who reported directly to first- through middle-level supervisors or managers from two organizations, a large information systems provider and a medium-sized manufacturing firm.

To fulfill that purpose, the following research hypotheses were examined:

Hypothesis 1: There is a significant positive relationship between transformational leadership behaviors and employee loyalty.

Hypothesis 2: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of distributive justice.

Hypothesis 3: There is a significant positive relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice.

Hypothesis 4: There is a significant positive relationship between transformational leadership behaviors and employees' perceptions of formal procedural justice.

Hypothesis 5: There is a significant positive relationship between transformational leadership behaviors and affective commitment.

Hypothesis 6: There is a significant positive relationship between transformational leadership behaviors and continuance commitment.

Hypothesis 7: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the organization worked for.

Hypothesis 8: There is a significant difference in transformational leadership behaviors, employee loyalty, employee commitment, and employee perceptions of organizational justice, based on the two levels of management to which respondents reported.

Methodology

To provide information with which to test the research hypotheses, a total of 603 employees participated in the study, evaluating 75 first- and middle-level managers. A random sample design was employed to identify the first-through middle-level managers, who worked for an information systems provider, to be evaluated. In this sample, 27 first-level managers and 28 middle-level managers agreed to be evaluated by their direct subordinates. A total of 447 employees completed this evaluation by means of a written survey. In the second sample, a manufacturing firm, all first- through middle-level managers (15 first level and 5 middle level) agreed to be evaluated by their direct subordinates. A total of 156 subordinates completed the evaluation by means of a written survey.

To gather the quantitative data required to test the research hypotheses statistically, four instruments were used: (a) the Transformational Leadership Scale, assessing behaviors associated with transformational leadership

characteristics; (b) the LMX Leader-Member Scale, assessing employee loyalty; (c) the Organization Justice Scale, assessing employees' perceptions of distributive justice, interactional procedural justice, and formal procedural justice; and (d) the Commitment Scale, assessing employees' degree of affective and continuance commitment to the organization.

These quantitative data were analyzed in three ways. First, exploratory factor analysis was performed to sharpen the focus of the Transformational Leadership Scale and to increase the precision and manageability of the instrument. This step allowed the researcher to reduce the scale and corresponding data from 54 items to 15 items.

Second, all research hypotheses were tested by using a paired t-test for correlated means. This step involved measuring the potential relationships between the Transformational Leadership Scale and employee loyalty, employee affective commitment, employee continuance commitment, employee perceptions of distributive justice, employee perceptions of interactional procedural justice, and employee perceptions of formal procedural justice. In addition, partial correlations measuring the potential relationships between the independent variable and each of the dependent variables (while controlling for the effect of all other variables) were performed.

The final step in the research methodology was to employ ANOVA to determine whether there was one or more significant differences anywhere between the two samples or the two levels of management studied. For this portion of the study, a series of null subhypotheses were tested.

Each hypothesis was tested at the .05 significance level, using the Statistical Package for the Social Sciences (SPSS-X, Version 3) and the Kansas State University mainframe computer.

Findings

Research Hypothesis 1 was supported by the results of the statistical analysis (p = .000). The findings indicated that there was a statistically significant positive relationship between transformational leadership behaviors and employee loyalty (goal congruence or support for the goals of the leader and the perceived quality of the leader-member exchange). This finding was true for both samples in the study.

Research Hypothesis 2 was supported by the results of the statistical analysis (p = .000). The findings indicated that there was a statistically significant positive relationship between transformational leadership behaviors and employee perceptions of distributive justice (fairness of difference of work outcomes, including pay level, work schedule, work load, and job responsibility). This finding was true for both samples in the study.

Research Hypothesis 3 was supported by the results of the statistical analysis (p = .000). The findings indicated that there was a statistically significant positive relationship between transformational leadership behaviors and employee perceptions of interactional procedural justice (the degree to which employees think their needs are considered in and adequate explanations made for job decisions). This finding was true for both samples in the study.

Research Hypothesis 4 was supported by the results of the statistical analysis (p = .000). The findings indicated that there was a statistically significant positive relationship between transformational leadership behaviors and employee perceptions of formal procedural justice (the degree to which job decisions include mechanisms that ensure the gathering of accurate and unbiased information, employee voice, and an appeals process). This finding was true for both samples in the study.

Research Hypothesis 5 was supported by the results of the statistical analysis (p = .000). The findings indicated that there was a statistically significant positive relationship between transformational leadership behaviors and affective commitment (commitment characterized by positive feelings of identification with, attachment to, and involvement in the work organization). This finding was true for both samples in the study.

Research Hypothesis 6 was not supported by the results of the statistical analysis (p = .273 for Sample 1 and p = .187 for Sample 2); therefore, Null Hypothesis 6 was not rejected. The findings indicated that there was no statistically significant relationship between transformational leadership behaviors and continuance commitment (extent to which employees feel committed to their organization by virtue of costs that they think are associated with leaving, e.g., investments and/or lack of attractive alternatives). This finding was true for both samples in the study.

The research data were explored further to investigate any differences between the two samples and between the respondents who directly reported to

two different levels of management. A series of null hypotheses were constructed to test for statistically significant differences.

Null Hypothesis 7a was supported by the results of the statistical analysis (p = .4550) and therefore was not rejected. The findings indicated that there was no statistically significant difference in transformational leadership scores, based on the organization worked for.

Null Hypothesis 7b was not supported by the results of the statistical analysis (p = .0056) and therefore was rejected. The findings indicated that there was a statistically significant difference in employee loyalty, based on the organization worked for.

Null Hypothesis 7c was supported by the results of the statistical analysis (p = .6707) and therefore was not rejected. The findings indicated that there was no statistically significant difference in distributive justice scores, based on the organization worked for.

Null Hypothesis 7d was supported by the results of the statistical analysis (p = .4956) and therefore was not rejected. The findings indicated that there was no statistically significant difference in interactional procedural justice scores, based on the organization worked for.

Null Hypothesis 7e was not supported by the results of the statistical analysis (p = .0456) and therefore was rejected. The findings indicated that there was a statistically significant difference in formal procedural justice scores, based on the organization worked for.

Null Hypothesis 7f was supported by the results of the statistical analysis (p = .0582) and therefore was not rejected. The findings indicated that there was no statistically significant difference in affective commitment scores, based on the organization worked for.

Null Hypothesis 7g was not supported by the results of the statistical analysis (p = .001) and therefore was rejected. The findings indicated that there was a statistically significant difference in continuance commitment scores, based on the organization worked for.

Null Hypothesis 8a was not supported by the results of the statistical analysis in Sample 1 (p = .000) and Sample 2 (p = .001) and therefore was rejected. The findings indicated that there was a statistically significant difference in transformational leadership scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Null Hypothesis 8b was not supported by the results of the statistical analysis in Sample 1 (p = .000) and Sample 2 (p = .007) and therefore was rejected. The findings indicated that there was a statistically significant difference in loyalty scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Null Hypothesis 8c was supported by the results of the statistical analysis in Sample 1 (p = .737) and Sample 2 (p = .946) and therefore was not rejected. The findings indicated that there was no statistically significant difference in

distributive justice scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Null Hypothesis 8d was not supported by the results of the statistical analysis in Sample 1 (p = .005) and Sample 2 (p = .009) and therefore was rejected. The findings indicated that there was a statistically significant difference in interactional procedural justice scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Null Hypothesis 8e was supported by the results of the statistical analysis in Sample 1 (p = .5746) and therefore was not rejected. The findings indicated that there was no statistically significant difference in formal procedural scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

In Sample 2, Null Hypothesis 8e was not supported by the results of the statistical analysis (p = .013) and therefore was rejected. The findings indicated that there was a statistically significant difference in formal procedural scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Null Hypothesis 8f was not supported by the results of the statistical analysis in Sample 1 (p = .025) and Sample 2 (p = .000) and therefore was rejected. The findings indicated that there was a statistically significant difference in affective commitment scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Null Hypothesis 8g was supported by the results of the statistical analysis in Sample 1 (p = .218) and Sample 2 (p = .200) and therefore was not rejected. The findings indicated that there was no statistically significant difference in continuance commitment scores between respondents who reported to first-level managers and respondents who reported to middle-level managers.

Conclusions

1.   The methodology employed in the research was appropriate for determining the relationship between transformational leadership characteristics and behaviors and employee loyalty, commitment, and perceptions of organizational justice.

2.   A strong positive relationship was found between transformational leadership behaviors and employee loyalty (correlation coefficients of .7977 for Sample 1 and .7699 for Sample 2), employee perceptions of distributive justice (correlation coefficients of .5128 for Sample 1 and .5117 for Sample 2), employee perceptions of interactional procedural justice (correlation coefficients of .8147 for Sample 1 and .8931 for Sample 2), employee perceptions of formal procedural justice (correlation coefficients of .5570 for Sample 1 and .6761 for Sample 2), and affective commitment (correlation coefficients of .4048 for Sample 1 and .3999 for Sample 2). The relationships indicated that employees who directly reported to leaders who frequently exhibited transformational leadership behavior reported that they were more loyal and committed to the

organization, and perceived the organization as more just. These findings might be attributed to the following:

- In the Transformational Leadership Scale, behaviors such as "Builds supportive relationships with me" and "Helps me set meaningful goals," which weighted among the highest across both samples, connect directly to the Loyalty Scale, which measures goal congruence and the quality of the leader-member exchange.

- In the Transformational Leadership Scale, behavior such as "Encourages me to take initiative and responsibility in my assignments," which weighted among the highest across both samples, connects directly to the Distributive Justice Scale, which measures fairness of difference in work outcomes.

- In the Transformational Leadership Scale, behavior such as "Actively seeks to understand my perspective," which weighted among the highest across both samples, connects directly to the Interactional Procedural Justice Scale, which measures the degree to which employees think their needs are considered in job decisions.

- In the Transformational Leadership Scale, behavior such as "Establishing trust and credibility when relating to me," which weighted among the highest across both samples, connects directly to the Formal Procedural Justice Scale, which measures the degree to which job decisions include mechanisms that ensure the gathering of accurate and unbiased information.

• In the Transformational Leadership Scale, behaviors such as "Creates enthusiastic support for the goals and vision of the business" and "Fosters in me a high level of commitment and excitement," which weighted among the highest across both samples, connect directly to the Affective Commitment Scale, which measures positive feelings of identification with, attachment to; and involvement in the work organization.

3. In the analysis to examine the dependent variables separately, the dependent variables of loyalty (correlation coefficients of .51 for Sample 1 and .39 for Sample 2) and interactional procedural justice (correlation coefficients of .43 for Sample 1 and .68 for Sample 2) continued to show a strong, positive relationship with transformational leadership behaviors. This finding might be attributed to the possibility that loyalty and interactional procedural justice are the key factors influenced by transformational leadership behaviors. As such, employees who reported a more positive relationship with their immediate manager and perceived that their needs were considered in job decisions perceived the organization as being more just and reported a higher level of commitment.

4. A relationship was not found between transformational leadership behavior and continuance commitment (correlation coefficients of .0457 for Sample 1 and .0567 for Sample 2). This supported the belief that employees who reported directly to leaders who frequently exhibited transformational leadership behaviors were committed because they were positively connected

to the organization, not because the costs associated with leaving (investments and/or lack of attractive alternatives) were too high.

5.   A statistically significant difference was not found in transformational leadership scores between the two organizations sampled (F-ratio of .5589 and F-probability of .4550). This finding might be attributed to the possibility that there are core leadership behaviors that are effective in any organizational setting.

However, the results did show a statistically significant difference in transformational leadership scores between the two levels of management sampled (F-ratio of 21.1073 and F-probability of .0000). Middle-level managers were perceived as exhibiting the transformational behaviors more frequently than first-level managers. This finding might be attributed to a number of factors, such as training levels, type and frequency of interactions, work assignments, and spans of control.

6.   A statistically significant difference in loyalty scores was found between the two organizations; Sample 1 reported higher loyalty scores (mean of 24.00) than did Sample 2 (mean of 22.96). This is a very interesting finding. Previous researchers have focused on the negative effect of employee downsizing on loyalty and commitment. However, in this study, Sample 1 was an organization that had experienced continued downsizing, and yet they reported loyalty scores higher than an organization that had remained stable. This raises the possibility that loyalty and commitment can be maintained and

perhaps even increased, during traumatic events like downsizing of the work force.

There was also a significant difference in formal procedural justice scores (mean of 24.80 for Sample 1 and 26.15 for Sample 2) and continuance commitment scores (mean of 32.59 for Sample 1 and 30.60 for Sample 2) between the two organizations sampled. However, in these instances, Sample 1 rated the organization lower in terms of ensuring the gathering of accurate and unbiased information, an employee voice and appeal process, and as having a higher level of continuance commitment. These findings might be attributed to a number of factors, including:

• Decisions to downsize in the organization typically are made by top levels of management. Employees may perceive this level of management as removed from the day-to-day operations and therefore unable to obtain accurate and unbiased information. In addition, employees may not think they have a voice or appeal process with this level.

• The employees in Sample 1 had experienced the threat of job loss for almost 10 years. Many had watched friends and co-workers leave the business before they chose to do so. This may have created a feeling of powerlessness among the employee base.

• During the period in which this survey was administered, Sample 1 had announced a major corporate restructuring, which included a significant employee downsizing effort. At the same time, this organization published an employee relationship document that stated jobs were no longer an entitlement—

they had to be earned. This major change in the internal environment may have affected employees' perceptions of justice and caused employees to assess the cost of being displaced.

7.   Scores were statistically significantly different and higher for employees who reported directly to middle-level managers than for employees who reported directly to first-level managers in terms of loyalty (mean of 23.45 versus 24.80 for Sample 1 and mean of 22.72 versus 26.20 for Sample 2), interactional procedural justice (mean of 36.08 versus 38.24 for Sample 1 and mean of 36.13 versus 43.10 for Sample 2), and affective commitment (mean of 34.51 versus 35.80 for Sample 1 and mean of 35.71 versus 43.10 for Sample 2). Those employees reported a more positive relationship with their supervisor, thought they were treated more fairly, and felt a stronger connection to the organization. These findings could be attributed to training, different spans of control, type of work, amount of information available, frequency of communications, quality of exchanges, or differences in leadership style.

8.   The present research demonstrated the importance of identifying leadership behaviors that have a positive relationship with employee loyalty, commitment, and perceptions of organizational justice.

9.   As organizations continue to downsize their work force to increase their cost competitiveness, leadership behaviors such as the ones identified in this study might provide the competitive synergy necessary for business growth and success. Previous researchers have found that employees who are more loyal and committed to the organization perform at a higher level of productivity

and are more innovative. Previous researchers also have found that employee loyalty and commitment decrease as the organization downsizes. In this study, it was found that there was a strong positive relationship between transformational leadership behaviors and employee loyalty and commitment, even during downsizing. It is therefore possible that employee loyalty and commitment can be maintained and even increased, thereby increasing productivity and innovativeness, even during downsizing efforts.

Recommendations

The following recommendations are offered for practical applications and for further research.

Recommendations for Practical Applications

1.   Organizations are encouraged to use this information in developing an infrastructure that supports and facilitates transformational leadership behaviors. This should include (a) defining the role of a leader as communicating a vision, role modeling the vision, jointly developing meaningful goals and objectives, and encouraging full participation in the business; (b) developing a leadership curriculum that teaches the desired behaviors; (c) developing a performance plan that recognizes and rewards the desired leadership behavior; and (d) recognizing that leadership occurs at all levels of the organization, not just the top.

2.   Leaders throughout all organizations should actively seek feedback from their direct reportees in terms of how well they are demonstrating the

desired leadership behaviors. This feedback should be acted upon, and the action plans should be shared with the direct reportees.

3.   The mission and vision of an organization serve as the common thread that binds and mobilizes the total membership. For this reason, leaders should pay particular attention to this critical area by connecting everyone and every job to it. This type of connection is accomplished only through ongoing, honest, two-way communications.

4.   Many of the behaviors identified in the Transformational Leadership Scale are viewed as "soft areas" and receive very little attention in many organizations. The results of this study indicated that the "soft areas" are associated with "hard results" and, as such, should not and cannot be ignored.

5.   Previous researchers have found that employee loyalty and commitment are lost when organizations downsize their work force. In this study, it was found that loyalty and commitment were not lost when leaders exhibited certain transformational leadership behaviors. Organizations that are considering or actually implementing workforce-downsizing programs should use this information to understand what will be required from their leadership, at all levels, if loyalty and commitment are to be maintained and if employees are to perceive the organization as being just.

6.   Educators who are involved in management development should expand curriculums to focus more on transformational leadership and less on transactional leadership. In today's highly competitive global economy, leaders must do more than plan, control, and direct. Previous researchers have

demonstrated the organizational power of transformational leadership over transactional leadership. The findings from this study supported and advanced those previous findings. Educators must now heed and advance the message.

7.   Human resource and organizational development specialists in business, industry, and government should view transformational leadership as a means to increased productivity and innovativeness through increased employee loyalty and commitment. As such, they should assist organizations with the processes, practices, skills, tools, knowledge, and information to facilitate the transition.

8.   Policy makers should recognize the critical role leadership plays in the human well being and financial success of organizations. Funding must be made available to further research in this field. Funding also must be made available for leadership curriculum development and delivery.

Recommendations for Future Research

1.   A similar study should be conducted in a public organizational setting to compare the results and findings with those from this study.

2.   A similar study should be conducted in an organization that has a corporate culture that develops and supports transformational leadership behavior to compare the results and findings with those from this study.

3.   A similar study should be conducted in similar organizations with one additional scale included that would measure the managers' performance from the boss's perspective. The findings from this study would be used to

compare leadership behaviors that share a strong relationship with employee loyalty, commitment, and perceptions of organizational justice with behaviors that are valued by the organization (as viewed by the immediate superior).

4.   A similar study should be undertaken to identify transformational leadership behaviors that share a strong relationship with employee loyalty, commitment, and perceptions of organizational justice. The study should then be expanded to include observing managers who were evaluated as exhibiting those behaviors frequently and managers who were evaluated as exhibiting those behaviors rarely to more clearly define actions and activities that demonstrate the desired behavior.

5.   A similar study should be conducted in another country or countries to examine whether the behaviors and relationships explored in this study can be applied in a different culture.

6.   A study should be conducted to examine the causal relationship between transformational leadership behaviors and employee loyalty, commitment, and perceptions of organizational justice.

Reflections

According to Max De Pree (1989), chief executive officer of Herman Miller Furniture and author of Leadership Is an Art, "Leadership is not a science or a discipline. It is an art; as such it must be felt, experienced, created" (p. 136). To illustrate this belief, De Pree stated, "We talk about the quality of our product and

service. But what about the quality of our relationships and the quality of our communications and the quality of our promises to each other?" (p. 74).

As the researcher reflected on the findings of this study, the questions De Pree posed appear significant. In the quest for lower cost, better quality, and product competitiveness, leaders may not realize that their toughest challenge will come from what is popularly referred to as the soft side or the art of leadership—an art that centers on relationships, communications, and commitment.

When the 15-item Transformational Leadership Scale that contains the behaviors that weighted heaviest across both samples is compared to the dimensions of relationships, communications, and commitment, there is a strong parallel. To illustrate, (a) the quality of relationships parallels the transformational leadership behavior, Builds supportive relationships with me; (b) the quality of communications parallels the transformational leadership behavior, Actively seeks to understand my perspective; and (c) the quality of promises to each other parallels the transformational leadership behavior, Establishes trust and credibility when relating to me.

If one believes there is value in loyalty and commitment, and previous researchers have strongly suggested there is value, and there is a strong relationship between the transformational leadership behaviors identified in this study and employee loyalty and commitment, then must it not hold true that there is value in the soft side of leadership? If one believes that transformational leaders are rated as more effective and that employees who work for

transformational leaders produce and innovate more, and previous researchers have strongly suggested that these relationships hold true, then must it not also hold true that hard results can be obtained from the soft side of leadership?

The answers to these questions may lie in the leadership paradigm shift that must occur and is beginning to take place—a shift from the past, where management and leadership were considered to be synonymous, where leadership behavior was characterized by perpetuating the culture, maintaining stability, establishing structure, and focusing on short-term results. The time has come to adopt a new paradigm where leaders create the culture, thrive on chaos, flourish in an unstructured environment, focus on intangible long-term results, and continually change strategies to respond to current demands. This new leadership style requires a strong relationship with team members, extensive communications, and the integrity to keep promises.

Will it be easy to make this shift? In The Prince, Machiavelli put it best when he said, "There is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things." The highly competitive global economy is dictating that organizations initiate a new order of things, and it will be difficult to carry out.

Organizations will need to provide the knowledge, training, skills, tools, recognition, reinforcement, and rewards to make the shift from transactional to transformational leadership. Academia will need to provide the acceptance and curriculum to take transformational leadership from just being a new trend in the popular press, to being a discipline that is recognized and developed. Leaders

will need a new value system and skill set that will take them from managing by planning, controlling, and directing with subordinates to leading by establishing quality relationships, quality communications, and quality promises with team members. This task is becoming even more complex as the work force becomes more diverse and global. Finally, employees will need to transcend their own self-interests by focusing their attention on the mission and goals of the larger organization.

Are organizations ready for this transformation? Perhaps not; however, the rapidly changing, chaotic, competitive external environment will force organizations to reassess every aspect of their internal landscapes if they are to survive. Is academia ready to facilitate this transformation? It must be. As part of academic responsibilities, studying societal needs and adding value to society as a whole is required. As organizations and individuals within organizations communicate the need for academia's assistance, it will be forced to respond. Are leaders ready to make a transformation? One must hope so. As the organizational landscape, expectations, requirements, and reward systems change, leaders, too, will be forced to learn and perform the leadership behaviors required if they are to survive. Finally, are employees ready to respond to this transformation? Perhaps the following anecdote will make the answer clear.

John Weatherspoon, a member of the Continental Congress, arrived in Philadelphia in 1776, just in time to hear a debate over independence between John Adams and John Dickerson. He heard the remark, "The colonies are not

yet ripe for a declaration of independence." Weatherspoon proclaimed, "In my judgement, we are not only ripe, but rotting."

This researcher believes that employees everywhere are ripe for independence and the success that it brings to organizations. They are ready for the independence that comes from understanding and committing to the organization's vision: the independence that comes from having meaningful goals and being encouraged to take initiative and responsibility; the independence that comes from someone being committed to their personal growth and development; the independence that comes from someone demonstrating trust and confidence in their talent and potential. Yes, employees are ready for the independence that comes from transformational leadership. It appears that leaders now have to be ready to answer the question, What about the quality of our relationships, the quality of our communications, and the quality of our promises to each other? if employee independence and organizational success are to be achieved.

APPENDICES

APPENDIX A

APPROVAL LETTER FROM THE UNIVERSITY COMMITTEE ON

RESEARCH INVOLVING HUMAN SUBJECTS

MICHIGAN STATE
U N I V E R S I T Y

September 14, 1993

TO: Ms. Carol Otto
        3240 Stonewood Drive
        Lansing, MI 48921

RE: IRB #: 93-208
        TITLE: THE EFFECT OF TRANSFORMATIONAL LEADERSHIP ON EMPLOYEE
               LOYALTY, EMPLOYEE COMMITMENT AND EMPLOYEE PERCEPTION OF
               ORGANIZATION JUSTICE
        REVISION REQUESTED: N/A
        CATEGORY: 1-C
        APPROVAL DATE: August 30, 1993

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project including any revision listed above.

Renewal: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the enclosed form to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

Revisions: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the enclosed form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable. the year, please outline the proposed revisions in a letter to the Committee.

Problems/
Changes: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517) 355-2180 or FAX (517) 336-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:pjm

cc: Dr. Richard Gardner

APPENDIX B

INSTRUMENTS USED IN THE STUDY

QUESTIONNAIRE ADMINISTRATION

INSTRUCTIONS

Read these instructions out loud to the participants, prior to distributing the questionnaire.

1. We would like you to participate in a research project that is being conducted by Carol Otto who is completing her dissertation for a doctorate degree in education.

2. The purpose of the research is to measure the relationship between certain leadership behaviors and employee loyalty, employee commitment and employee perception of organization justice. The research is being conducted in two different companies and approximately 75 managers are being evaluated by employees.

3. Your anonymity is guaranteed. There are no names on the survey, just a six (6) digit code that is being used to associate all the surveys for an individual leader. In addition, all results will be treated with strict confidence and you will remain anonymous in the report of the research findings.

4. Participating in this research is voluntary. You indicate your voluntary agreement to participate by completing and returning the questionnaire.

5. The survey will take approximately 20 minutes to complete. You may use either pencil or pen when completing the survey.

6. We would ask that you be as open and honest as possible when answering the questions. We would also ask that you read the directions given for each part of the survey before answering the questions.

7. If you have any questions about the questionnaire or research project, please call Carol Otto on (313) 360-1469.

8. Thank you for participating in this research project.

Part I.

Directions: Listed below are descriptive statements. We would like you to read each statement and circle the number to the right that best fits your **immediate supervisor.** When a question is irrelevant or does not apply, or where you are uncertain or don't know, leave the answer blank. Make no more than one mark for each question.

Please respond to the questions in this part according to the following scale:

1	2	3	4	5
Not at All	Once in a While	Sometimes	Fairly Often	Frequently if Not Always

MY SUPERVISOR:

1. encourages me to believe in myself   1 2 3 4 5

2. provides the necessary resources, tools and information I need   1 2 3 4 5

3. when I fail, focuses more on what was learned and less on why things fail   1 2 3 4 5

4. helps me develop the skills which improve my performance   1 2 3 4 5

5. strives for excellence from self and others   1 2 3 4 5

6. involves me in meetings, decisions and programs when appropriate   1 2 3 4 5

7. keeps me focused on the overall direction/vision for our department   1 2 3 4 5

8. gives me the freedom and flexibility to experiment   1 2 3 4 5

9. gives recognition for my efforts and contributions   1 2 3 4 5

10. wants me to get involved when I see a need and not wait to be told or given permission   1 2 3 4 5

11. fosters in me a high level of commitment and excitement   1 2 3 4 5

12. emphasizes that doing the right thing is just as important as the eventual outcomes or results   1 2 3 4 5

13. encourages support of the business policies, procedures and positions of this organization   1 2 3 4 5

14. encourages me to just "do it"!   1 2 3 4 5

15. helps remove roadblocks   1 2 3 4 5

16. fosters an environment where knowing about problems or defects is good not bad   1 2 3 4 5

17. inspires me to do more than I thought I could   1 2 3 4 5

18. establishes trust and credibility when relating to me   1 2 3 4 5

19. encourages me to openly express my feelings and concerns   1 2 3 4 5

20. helps me set meaningful goals   1 2 3 4 5

	1	2	3	4	5	
	Not at All	Once in a While	Sometimes	Fairly Often	Frequently if Not Always	

My Supervisor:

21. encourages me to focus on what can be done rather than what has always been done   1 2 3 4 5

22. shows respect for my unique worth and contribution to our work groups   1 2 3 4 5

23. is willing to delegate the appropriate authority to achieve the desired results   1 2 3 4 5

24. believes that if you are right and things don't work out, try, try, try again   1 2 3 4 5

25. recognizes that the betterment of the team is as valuable as the results achieved   1 2 3 4 5

26. conveys ownership by talking in terms of our customer, our budget, our business   1 2 3 4 5

27. openly expresses confidence in me   1 2 3 4 5

28. builds supportive relationships with me   1 2 3 4 5

29. is able to lead me to overcome fear and uncertainty in making change   1 2 3 4 5

30. is committed to my growth and development   1 2 3 4 5

31. is a positive example of a "can do" approach   1 2 3 4 5

32. is flexible and open to my input   1 2 3 4 5

33. has a vision for our work group and communicates it often   1 2 3 4 5

34. helps me think about my work in new and unconventional ways   1 2 3 4 5

35. demonstrates trust and confidence in my talents and potential   1 2 3 4 5

36. encourages me to take initiative and responsibility in my assignments   1 2 3 4 5

37. encourages a long run, patient, disciplined approach versus a "flash in the pan" approach   1 2 3 4 5

38. emphasizes that searching for changes to better satisfy customers and remain competitive contributes to staying in business   1 2 3 4 5

39. puts me in situations where I can succeed   1 2 3 4 5

40. is willing to give his/her time when I need it   1 2 3 4 5

41. can be counted on to use power and authority in a positive manner (for the good of the team and organization)   1 2 3 4 5

42. develops a trusting relationship by sharing information   1 2 3 4 5

43. makes a direct connection between my job and our unit's vision and mission   1 2 3 4 5

44. encourages improvement through analysis of every process and action within my control   1 2 3 4 5

45. holds me accountable for my actions   1 2 3 4 5

	1	2	3	4	5
	Not at all	Once in a while	Sometimes	Fairly often	Frequently if not always

My Supervisor:

46. wants me to relate to others, make decisions, utilize equipment and other resources as if it were my own business   1 2 3 4 5

47. is a coach (motivates, corrects, builds teamwork, mentors, etc.)   1 2 3 4 5

48. is a teacher.(trains, develops, educates, etc.)   1 2 3 4 5

49. is a leader (visionary, trail blazer, risk taker, inspirational, change agent, etc.)   1 2 3 4 5

50. actively seeks to understand my perspectives   1 2 3 4 5

51. helps me visualize the business through the eyes of the customer, i.e. is highly customer conscious   1 2 3 4 5

52. creates enthusiastic support for the goals and vision of the business   1 2 3 4 5

53. acts with integrity in all business transactions   1 2 3 4 5

54. is able to help me disengage from the past and move into the future   1 2 3 4 5

Part II.

Directions: For this part, please read each question and circle the response which best fits your belief about your relationship with your immediate supervisor.

1. The way my supervisor sees it, the importance of my job to his/her performance is:
   1. Slight to none—it has little effect on his/her performance
   2. Somewhat
   3. Moderate
   4. Great
   5. Very great—it critically affects his/her performance

2. My supervisor would probably say that my work goals and his/hers are:
   1. Opposite
   2. Different
   3. Unrelated
   4. Similar
   5. The same

3. On my present job, this is how I feel about the way my supervisor and I understand each other:
   1. Very dissatisfied
   2. Dissatisfied
   3. Undecided or neutral
   4. Satisfied
   5. Very satisfied

4. The way my supervisor sees me, he/she would probably say that my ability to do my job well is:
   1. Poor
   2. Below average
   3. Average
   4. Good to very good
   5. Exceptional

5. I feel that my work goals and those of my supervisor are:
   1. Opposite
   2. Different
   3. Unrelated
   4. Similar
   5. The same

6. On my present job, this is how I feel about the way my boss provides help on hard problems:
   1. Very dissatisfied
   2. Dissatisfied
   3. Undecided or neutral
   4. Satisfied
   5. Very satisfied

Part III.

Directions: In answering the following questions, think about the day-to-day decisions made about worker responsibilities, schedules, rewards, and general treatment. For each statement, indicate your AGREEMENT or DISAGREEMENT by circling the appropriate response according to the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree

When decisions about all employees in general or you in particular are made in this company...

1. ...complete information upon which the decisions are based is collected.	1 2 3 4 5
2. ...useful feedback about the decision is provided.	1 2 3 4 5
3. ...your supervisor provides you useful feedback regarding the decisions.	1 2 3 4 5
4. ...your supervisor treats you with respect and dignity.	1 2 3 4 5
5. ...the decisions are applied with consistency to the parties affected.	1 2 3 4 5
6. ...your supervisor clearly explains the decisions to you.	1 2 3 4 5
7. ...accurate information upon which the decisions are based is collected.	1 2 3 4 5
8. ...your supervisor deals with you in a truthful manner.	1 2 3 4 5
9. ...your supervisor treats you with kindness and consideration.	1 2 3 4 5
10. ...the concerns of all the groups affected by the decisions are heard.	1 2 3 4 5
11. ...your supervisor discusses the implications of the decisions with you.	1 2 3 4 5
12. ...requests for clarification and additional information are allowed.	1 2 3 4 5
13. ...all the sides affected by the decisions are represented.	1 2 3 4 5

1	2	3	4	5
Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree

14. ...your supervisor shows concern for your rights as an employee.   1 2 3 4 5

15. ...your supervisor offers you adequate justification for the decisions.   1 2 3 4 5

16. ...opportunities are provided to appeal or challenge the decisions.   1 2 3 4 5

17. ...your supervisor is sensitive to your personal needs.   1 2 3 4 5

18. ...your supervisor helps you understand the reasons for the decision.   1 2 3 4 5

You are fairly rewarded:

1. ...considering the responsibilities that you have.   1 2 3 4 5

2. ...when you take into account the amount of education and training that you have had.   1 2 3 4 5

3. ...in view of the amount of experience that you have.   1 2 3 4 5

4. ...for the amount of effort that you put forth.   1 2 3 4 5

5. ...for the work that you have done well.   1 2 3 4 5

6. ...for the stresses and strains of your job.   1 2 3 4 5

Part IV.

Directions: The purpose of this section is to examine your attitudes about your workplace. For each statement, indicate your AGREEMENT or DISAGREEMENT by circling the appropriate response according to the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree

1. I do not feel a strong sense of belonging to my organization.   1 2 3 4 5

2. It would be very hard for me to leave my organization right now, even if I wanted to.   1 2 3 4 5

3. I think I could easily become as attached to another organization as I am to this one.   1 2 3 4 5

4. I would be very happy to spend the rest of my career with this organization.   1 2 3 4 5

1	2	3	4	5
Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree

5. I am not afraid of what might happen if I quit my job without having another one lined up.　　　　　　　　　　　1　2　3　4　5

6. This organization has a great deal of personal meaning for me.　　1　2　3　4　5

7. Too much in my life would be disrupted if I decided I wanted to leave my organization now.　　　　　　　　　　　　1　2　3　4　5

8. I really feel as if this organization's problems are my own.　　1　2　3　4　5

9. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.　　1　2　3　4　5

10. Right now, staying with my organization is a matter of necessity as much as desire.　　　　　　　　　　　　　1　2　3　4　5

11. It wouldn't be too costly for me to leave my organization in the near future.　　　　　　　　　　　　　　　1　2　3　4　5

12. I do not feel like "part of the family" at this organization.　　1　2　3　4　5

13. I enjoy discussing my organization with people outside it.　　1　2　3　4　5

14. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice — another organization may not match the overall benefits I have.　　1　2　3　4　5

15. I do not feel "emotionally attached" to this organization.　　1　2　3　4　5

16. I feel I have too few options to consider leaving this organization.　　　　　　　　　　　　　　　　　　1　2　3　4　5

Part V. Demographic Information

Directions: Please indicate your responses to each of the following questions.

1. What is your gender?　　Male_____　　Female_____

2. What is your age on your last birthday? _____

3. How long have you been working at your current job?

　　　　　　　_____years _____months

4. How long have you been working for this organization?

　　　　　　　_____years _____months

SURVEY NUMBER:_____

APPENDIX C

RELIABILITY COEFFICIENTS BY SCALE AND BY SAMPLE

Table C1:   Reliability coefficients by scale and by sample.

Scale	Sample 1	Sample 2
15-item Transformational Leadership	.9690	.9725
Loyalty (LMX)	.8273	.8172
Distributive Justice	.9607	.9613
Interactional Procedural Justice	.9476	.9534
Formal Procedural Justice	.9341	.9115
Affective Commitment	.8315	.8709
Continuance Commitment	.7286	.7044

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