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THE RELATIONSHIP BETWEEN TEAM LEADER BEHAVIORS AND TEAM
PERFORMANCE AND SATISFACTION

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Mary Ann Burress, B.A., M.S.

Denton, Texas

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The purpose of this study, a quasi experimental design, was to investigate the relationship between team leader behavior and team performance and satisfaction. This field research tested leader behavior dimensions from two theoretical models of team effectiveness: Hackman's (1992) "expert available coaching," and Cohen's (1994) "encouraging supervisory behaviors." The relationship between coaching behaviors and team performance, employee, and customer satisfaction was assessed. Manager behavior was assessed with the SMT Leader Survey (Burress, 1994), an instrument determined appropriate for team environments, that measures Communication, Administration, Leadership, Interpersonal Skills, Thinking, and Flexibility. Employee satisfaction and performance information was archival data provided by the organization.

The results demonstrated that leader behavior is a less important component of team effectiveness than initially expected. Even though direct customer interaction was 25% of these manager jobs and considered the organization's most important predictor of corporate profitability, no

relationship between leader behavior and customer satisfaction was found.

Among the key findings was, that while flexibility differentiated leader behavior more than any other scale, its relationship with both team performance and team satisfaction was negative. Interpersonal skills were positively associated with team performance, while leadership was positively associated with team performance and satisfaction. The SMT data were factor analyzed and formed into three factors. Two were historical leadership constructs: consideration (which correlated positively with employee satisfaction) and structure. A third factor, decisiveness, was negatively related to team performance.

This research determined some essential skills for managing high performance teams and improving employee satisfaction. The results indicate that managers in a team environment may need to alter their roles if high performance and employee satisfaction are organizational objectives. Possibilities include building and developing the corporation's business, creating in depth relationships with customers, and establishing alliances and partnerships with other organizations. These roles will require new manager skills which have the potential to increase manager job satisfaction and augment manager value to the corporation.

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CHAPTER I

INTRODUCTION TO THE STUDY

Overview

Corporations today operate in turbulent and demanding environments. Increasing competition in the world market forces companies to address problems of declining productivity, high cost-structures, and an increasingly alienated work force. Many companies have found that traditional management approaches to leadership and job design are inadequate to meet current needs (Block, 1993).

Empowered work groups, self-managing teams, and other forms of employee participation have become the basic building blocks for redesigned organizational systems directed at solving these problems (Cheney, 1990; Musselwhite & Moran, 1990). Several theoretical models for team design (Campion, Medsker, & Higgs, 1993; Cohen, 1994; Hackman, 1987) suggest that empowered work groups have the potential to increase both productivity, and employee satisfaction. A comparison of these theoretical models and the design parameters present in high performing teams supported those assertions (Root, 1994).

Team based systems shift the organization from a functional structure to a product or a process orientation

(Zenger, 1988). This shift in structure requires a shift in the type of leadership needed to support a team-based system (Manz & Sims, 1987; Zenger, 1988). Work teams require a management transformation, paradigm shift, and corporate renewal (Burruss, 1992, 1993, 1995; Manz & Sims, 1984, 1986, 1987, 1989, 1992; Zenger, 1988).

Purpose of the Study

The purpose of this research is to investigate the relationship between leader behavior and team performance. The amount of literature suggests that team leadership is important. Theoretical models of team leadership indicate leaders should be coaches and mentors, not supervisors or directive managers (Hackman, 1992; Manz & Sims, 1987). Few empirical studies have examined the team leadership phenomenon. Thus, there is a lack of knowledge about the appropriate behavior for leading self-managing individuals, work groups, and teams. This research was part of a comprehensive field study that tested Hackman's theoretical model for team effectiveness, see Figure 1 (Wageman, 1996). One of the key performance conditions when leading groups in organizations is available and expert coaching (Hackman, 1992). This study assessed the relationship between coaching behaviors and team performance and satisfaction.

Cohen's (1994) Model of Self-Managing Team

Effectiveness has two criterion: member attitudes with the quality of work life and team performance. Job satisfaction

is the component of member attitudes relevant for this study. Predictors for team effectiveness include group characteristics, group task design, employee involvement context, and encouraging supervisory behaviors. Root (1994) tested those aspects of the Cohen model that related to the tasks and the team. Root found that team-oriented interpersonal group processes correlated with performance and team member job satisfaction. Evaluating encouraging supervisory behaviors was not included in that research. This study assessed the relationship between encouraging supervisory behavior and employee satisfaction with their immediate supervisor.

Customer satisfaction is an important measure of corporate performance used by leading organizations (Block, 1993). The corporation participating in the research determined customer satisfaction the most important indicator of corporate profitability (Ruddy, Personal Communication, April 24, 1995). Ensuring customer satisfaction was a component of the manager's job. No prior studies have related leader behavior to customer satisfaction. Thus, another purpose of this research was to evaluate the relationship between leader behavior and customer satisfaction.

This study explores the relationship between team leader behaviors and work group performance and employee satisfaction with supervision. The objective of the

research is defining some new skills for leading teams and determining which skills are most critical for high performance. Several research questions form the basis for this investigation:

Q1: What leader skills are essential to managing high performing team?

Q2: Is there a relationship between leader behaviors and employee satisfaction with supervision?

Q3: Which leader skills are most strongly associated with customer satisfaction?

Theoretical Framework

There are key differences in jobs, authority, and rewards when organizations use work teams (Orsburn, Moran, Musselwhite, & Zenger, 1990). Jobs are typically redesigned into one or two broad categories from narrow specialized classifications. Authority changes from direct control by supervisor and manager to group decisions and team control of daily activity (Orsburn et al, 1990). Rewards are now tied to team performance and individual breadth of skills rather than being confined to type of job, individual performance, and seniority (Orsburn, et al, 1990). Consequently, implementing teams in a company changes the way the organization functions and many of the supporting corporate systems, i.e., compensation, rewards and recognition, performance appraisal, education and training, and information (Orsburn, et al, 1990). Inevitably, an

integration of several bodies of literature are necessary to provide the theoretical foundations for implementing teams.

This study used two models of team effectiveness as a conceptual basis: Hackman's Leading Groups in Organizations and Cohen's Self-Managing Team Effectiveness. Both models incorporate the Job Characteristics Model of work design (Cohen, 1994; Hackman, 1992). Each ideal contains a team leadership dimension. Hackman asserts that team leaders provide available, expert coaching by monitoring performance outcomes, performance processes, and performance conditions (Hackman, 1992). Cohen's model contends that encouraging supervisory behaviors are predictors of team effectiveness. Manz and Sims conceptualized the leadership dimensions, encouraging supervisory behaviors (1987). Key questions for this study is: what is the role and appropriate behaviors for leaders in a team based organization? What specific leader skills are critical for managing high performance teams? And is there a relationship between leader behaviors and employee satisfaction?

Significance of the Study

Many authors extol the performance improvements when using self-managing work teams (Galbraith & Lawler, 1993; Orsburn, Moran, Musselwhite, & Zenger, 1990; Mohrman, Cohen, & Mohrman, Jr., 1995; Pasemore, 1994). Procter & Gamble used self-directed work teams as a competitive advantage and trade secret since 1968 (Orsburn, et al, 1990). Other

authors discuss ways that leaders and management need to change when implementing teams (Burrell, 1992, 1993, 1995; Hackman 1987, 1992; Manz & Sims, 1984, 1986, 1987, 1989, 1992; Mohrman, Cohen, & Mohrman, Jr., 1995; Orsburn, et al, 1990). Block (1993) asserts that the entire leader-employee relationship needs rethinking. This study will provide an enhanced understanding of the leader role and appropriate behavior in an empowered environment. This information can help organizations redesign manager jobs, provide input into management training curriculum, and advance implementation of work team strategies.

Summary of the Literature

In the summary of the literature, three primary topics are presented. Those subjects include: a historical perspective of leadership, work design and work redesign. The chapter starts with a historical evolution of leadership research. Included are the research findings and conditions concerning work design that heighten employee satisfaction and performance. Work redesign is reported to illustrate differences in an empowered organizational environment with a conceivable new role for leaders. The potential for improving employee satisfaction and performance in a team based organization is considered. A conceptual model for leading self-managing work teams is presented. The models potential impact on employee satisfaction with supervision

and work group performance is discussed. The chapter concludes with research propositions and strategy.

Leadership: A Historical Perspective

Historically, leadership is a widely researched topic and draws on the perspectives of many different disciplines, (i.e., psychology, organizational behavior, management, sociology, and education). There are virtually thousands of articles on the topic (Yukl, 1989). This section summarizes the principal trends in leadership research through time. The primary theories included in this summary are shown categorized in Table 1.

Leadership research first investigated leader traits, leader behavior, and leader power. Inconsistent findings indicated that certain contingencies and the situation impacted manager behavior and effectiveness, thus additional theories and streams of research. A difficult economic period for many organizations in the 1980s changed the situations. Charismatic and transformational leadership were determined necessary for organizations to survive during this period.

Another dimension and equally important aspect of the research are some substitutes for leadership postulated by Kerr and Jermier (1978) and Manz and Sims (1987). Kerr and Jermier (1978) propose that characteristics of the subordinate, the task, and the organization can effectively substitute for formal, hierarchical leadership. Manz and

Table 1.

Major Theories of Leadership Through Time

	Traits	Behavior	Power	Leader Process		
				Contingency	Situational	Transformational
		Manz & Sims (1987) Superleadership			Yukl (1989) Multiple Linkages Model	
	McCall & Lomberdo (1983) Boyatzis (1982) Specific Skills & Managerial Motivation	Kouzes & Posner (1988) Participative Leadership			Fiedler & Garcia (1987) Cognitive Resources	Conger & Kanungo (1987) Charismatic Theory
	Bass (1981) Specific Skills				Wofford (1982) Leader-Environment-Follower Interaction	Bass (1985) Transformational Leadership
1980s					Hunt Osborn (1982) Multiple Influence Model	
			Hollander (1978) Social Exchange Theory	Blake & Mouton (1978) Managerial Grid	Green & Mitchell (1979) Attribution Theory	Burn's (1978) Transforming Leadership
				Graen (1975) Leader Member Exchange	Stewart (1976) Demands-Constraints-Choices Theory	
				Kerr, Schriesheim, Murphy (1974)		
			McClelland (1976) nPower		Hersey & Blanchard (1973) Tridimensional Leader Effectiveness	House (1977)
					House (1972) Path-Goal Theory	
1970s				Jacobs (1970) Exchange Model		
				Fiedler (1967) Contingency Theory Least Preferred Coworker	Hersey & Blanchard (1969) Situational Leadership	
					Hahn, Wolfe, Quinn, & Snoelk (1964) Role Theory	
1960s		Tannenbaum & Schmidt (1958) One Dimensional Continuum	French - Raven (1959) Power Influence			
1940-1950s		Michigan Studies				
1900-1940s	Great Man Theory	Ohio State Studies				

Sims (1987) and Pasmore (1994) indicate that self-leadership and self-management can effectively substitute for hierarchical leadership. These researchers have expanded possibilities for employees in organizations and thus changed potential roles for managers. The Manz and Sims research also reflects the leadership challenges faced by organizations evolving into an empowered culture. In addition, Hackman and Walton (1986) found existing leadership theories inadequate to deal with task performing groups in organizations. These researchers have identified new behaviors for leading teams which provides the theoretical foundation for this leadership study.

Leader traits. Early trait research, conducted during the 1930-1940s, focused on the characteristics of the individual (Yukl, 1989). "Great Man Theory" investigated the acute intuition and exceptional foresight of important individual leaders. These individuals were described as persuasive and energetic leaders, although no traits guaranteed success (Stogdill, 1974). Specific skills and managerial motivation are more often the subject of recent trait research. The skills mentioned include: high self-confidence and energy levels, considerable initiative, emotional maturity, stress tolerance, and an internal locus of control (Boyatzis, 1982; McCall & Lombardo, 1983). Bass (1985) suggests leaders need to balance technical, conceptual, and interpersonal skills today. Bass also

states today's leaders must have analytical ability, persuasiveness, presentation and platform skills, a memory for details, with plenty of empathy, tact and charm. Encouraging supervisory behaviors also suggests a need for heightened interpersonal skills.

Leader behavior. Studying traits made it difficult to predict leadership success. Consequently, in the 1940s - 1950s, researchers examined what successful leader's did, or their behavior. The Ohio State studies are forerunners in the behavioral leadership research. The Ohio State studies viewed leadership as a stable construct and consistently found two orthogonal dimensions: consideration of employees and initiating structure. A considerate manager displays concern for the well being of subordinates, trust, warmth, and respect for workers. The structure dimension describes the degree to which managers organize, define, or otherwise structure job activities of their people.

The Michigan State studies expanded the employee orientation concept into support and interaction facilitation and the task orientation dimension into goal emphasis and work facilitation. Other behavioral researchers, Tannenbaum and Schmidt (cited in Thibodeaux & Yeattes, 1992) decided that authoritarian behavior, or work orientation, and democratic behavior, or worker orientation, should be a one dimensional continuum. These researchers revised their theory and determined leadership style is

based on forces in the leader, subordinates, and the situation (Tannenbaum & Schmidt, cited in Thibodeaux & Yeattes, 1992). The work of Bowers and Seashore (cited in Thibodeaux & Yeattes, 1992) reflected the same dimensions as the Michigan State studies.

The Leader Opinion Questionnaire (LOQ) and the Leader Behavior Description Questionnaire (LBDQ) are two measures developed from the Ohio State studies which spawned considerable research (Halpin, 1957). Another measure, the Supervisory Behavior Description Questionnaire (SBDQ) was developed from the Michigan State studies (Likert, 1967).

These measures generated substantial research over the years. Fleishman and Harris (1962) related consideration and structure to grievance and turnover in a classic performance study. The researchers found that the positive benefits of high consideration can offset the negative effects of high structure. However, the positive effects of low structure could not offset the negative effects of low consideration. Consistent findings over decades of research are high positive correlations between supervisor consideration and job satisfaction of subordinates, although the measures did not always correlate with important organizational outcomes (Yukl, 1989). Extending these findings to team based organizations is one objective for this study.

Leader power. French and Raven (1959) were the first researchers to consider the power differential in manager subordinate relationships with their Power Influence Model. These researchers defined legitimate, reward, coercive, expert, and referent power. Legitimate power is given via social control while position power is based on hierarchical level in the organization. The higher the leader is in the organizational hierarchy the greater potential for increased reward or coercive power. Subordinates comply with leader requests based on reward potential or sanctions. Reward power is achieved through control of incentives, while coercive power controls sanctions. Expert power is based on unique abilities and special knowledge or expertise. This type of power does not necessarily rest within a formal leader. Referent power refers to a manager's ability to create opportunities for some employees by special assignments.

Other researches either defined or investigated the power construct from different perspectives. Hollander's Social Exchange Theory (1978) defined expert power as a demonstration of problem solving competence and effective decision making. McClelland examined the individual leader's Power. Asking team members to make decisions and solve problems suggest a diffusion of expert power in team based organizations or at least a question for future research.

Bass (1984, cited in Yukl, 1989) combined person and position to determine power base in his Strategic Contingencies Theory. He also determined that power based on decision making and competence must be valued by the organization. Bass further determined that if an individual can be replaced easily, acquiring and maintaining a power base is difficult.

Sharing power is a fundamental part of the participative leadership movement. However, Kouzes and Posner (1988) summarized thirty five years of participative leadership and found inconsistent relationships between leader behavior and employee satisfaction and performance. Manz and Sims (1987), however, found power sharing and delegation supported by research in self-managed work teams.

Leader process. Inconsistent findings in the behavioral research suggested the inclusion of certain contingencies or moderator variables. The situational approach emphasized the context, work, external environment, and attributes of the subordinates. Aspects of the organizational environment examined by contingency researchers were the effects of time pressure, task related satisfaction, subordinate need for information, job level, and subordinate expectations (Kerr, Schriesheim, & Murphy, 1974). Process researchers investigated aspects of the situation that impacted leader behavior, the amount of discretion leaders actually have, and interpretation of

subordinate performance. Leader behavior became the dependent variable and the situation became the moderator variable (Yukl, 1989).

Early researchers explored how the situation influenced managerial behavior in relationship to their role (Kahn, Wolfe, Quinn, & Snoelk, 1964) Role Theory postulated that managers adapt their behavior to the requirements, constraints, and demands of their role. The Demands-Constraints-Choices Theory determined that the interaction of these variables depended upon the work (Stewart, 1976). The work could be self-generating or reactive, repetitive or variable, uncertain or predictable, fragmented or sustained, hurried or unhurried. Managers adapt to fit the situation.

Another early proponent, Fiedler's (1967) Contingency Theory, considered task structure, position power, and leader member relationships with his Least Preferred Coworker Scale. Ambiguity about what the scale actually measured and the absence of other explanatory processes were conceptual weaknesses.

Hersey and Blanchard (1969) devised a tridimensional leader effectiveness model comparing task and relationship behavior, and using subordinate maturity as a moderator variable. This Situational Leadership Model established that different patterns of leader behavior depend upon subordinate confidence and skill in relationship to the task. Perrow's (1967) focus was leadership style and

organizational technology. He evaluated differences in a task oriented leadership style in routine technologies versus a people oriented style in nonroutine technologies.

House's Path-Goal Theory (1971) determined that leader behavior is acceptable and satisfying to subordinates as long as they see it as instrumental in achieving goals or valued outcomes. Successful leaders clear paths to goals and help subordinates achieve goals. Limitations of the theory were found in measuring these constructs and the weak conceptual underpinning (Blake & Mouton, 1982; Schriesheim & Kerr, 1977; Yukl, 1989). Subsequently, Blake and Mouton (1978) devised a Managerial Grid that had two orthogonal dimensions, concern for production and concern for people. These models considered leadership changeable characteristics (Edwards, Rode, & Ayman, 1988).

Vroom and Yetton's (1973) Normative Decision Theory examined manager decision making parameters. Their principle question was: what procedures most likely result in effective decisions given a specific situation. Critics stated the theory tells people what not to do, not what to do (Crouch & Yetton, 1987).

Vertical Dyad Linkage Theory explored the individual relationship between the manager and subordinate. This theory, now called Leader-Member Exchange Theory (LMX), postulated that leaders develop "in-groups" and "out-groups" among subordinates (Dansereau, Graen, & Haga, 1975). Group

members are treated differently, and better assignments, influence, and autonomy are given to in-group members. Dockery and Steiner (1990) consistently found that positive personal interaction and subordinate ability were significant predictors of LMX. It is expected that leaders of high performance teams will have enhanced interpersonal interactions with their teams.

Hunt and Osborn (1982) created a Multiple Influences Model which emphasized the macro level influences of the situation. For example, these researchers examined level and centralization of authority, size and function of the work unit, lateral interdependence across different units and the external environment. Yukl (1981) determined that effective leaders modified the situation to increase their discretion, and reduce their role conflicts and role ambiguity.

In the meantime, Green and Mitchell (1979) used Attribution Theory to explain how leaders interact with their subordinates. Leaders interpret employees performance information based on cognitive processes. Attributions are the thought processes we use to determine the cause of our own or, others behavior. The manager will try to change the situation when an external, or environmental attribution, is made. However, if an internal attribution is made (trait in the person), managers provide detailed instruction, coach

and monitor subordinates more closely, or set easier goals and deadlines.

Schriesheim and Stogdill (1975) evaluated differences in factor structure across three versions of the LBDQ and with Kerr (1976) attempted to reconcile discrepant situational studies using consideration and structure leadership measures. Two summary postulates from the results of non-theoretical research using the SBD and LBDQ are:

1. The more subordinates are dependent on the leader for things they need, the higher will be the relationship between leader consideration and structure and subordinates satisfaction and performance--dependency on the leader.

2. The more the leader can provide subordinates with expected, needed, and valued services, the greater will be the relationship of leader behavior, consideration, and structure to subordinate satisfaction and performance--the amount the leader can deliver.

Additional, findings in the leader process research determined that the same behavior is not optimal in all situations (Yukl, 1989). However, making accurate predictions about ideal behavior in a given situation is impossible.

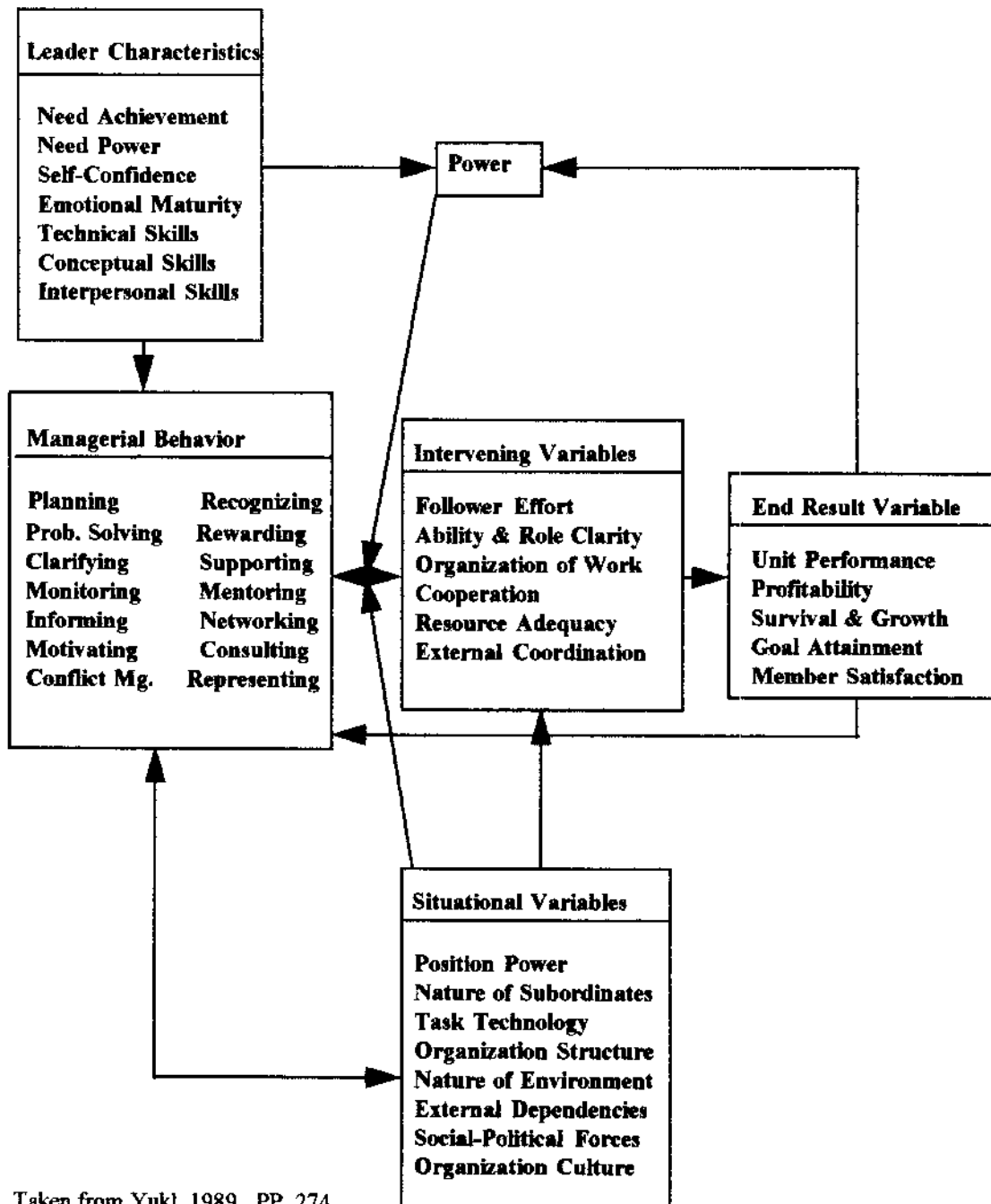
Several important trends occurred in the late 1970s and 1980s which impacted leadership research. First, there was a trend towards an integration of traits, behaviors, power

and situation. One example is Yukl's Integrating Conceptual Framework (1989). This model, shown in Figure 1, includes leader characteristics which influence personal power and managerial behavior. Managerial behavior has a reciprocal relationship with situational variables and intervening variables and is affected by end result variables or effectiveness criterion.

Another example is Wolford's (1982) Leader-Environment-Follower-Interaction Theory. This theory predicates subordinate performance based on four intervening variables: ability, motivation, clear roles, and environmental constraints. The leader uses diagnostic behavior to assess deficiencies and take corrective action. The leader increases motivation with incentives, participation, job redesign, and high expectations. The leader can also change the context by reorganizing the work, modifying the technology, removing physical constraints, and providing resources.

The integration of traits, behavior, power, and situation coupled with an economic crises in the 1980s fostered another trend with leadership research. Investigators found charismatic individuals responsible for transforming their organizations (i.e., Jack Welsh, GE, Lee Iacocca, Chrysler). At the same time, organizational situations changed rapidly. Thus the need for additional theories and a proliferation of research.

Figure 1: An Integrating Conceptual Framework



Taken from Yukl, 1989, PP. 274

Charismatic leadership. Charismatic leaders' influenced major change in attitudes and assumptions of employees by using persuasive communication to build commitment for the organization's mission, objectives and strategies. Employees were empowered to participate in this shared process.

Early proponents of charismatic leadership integrated traits, behavior, power, and situational variables (Yukl, 1989). Characteristics of a charismatic leader are strong convictions and a high need for power, high self-confidence, the ability to articulate an appealing vision, and impression management. Charismatic leaders define the task in terms of ideological goals as a method for building follower commitment. Charismatic leadership focuses on the individual with unquestioned acceptance of the leader. Consequently, there are historical examples of unquestionably devastating charismatic leaders (i.e., Hitler, Jim Jones).

House (cited in Yukl, 1989) concluded that a charismatic leader was likely to appear when a severe crisis was not handled appropriately and traditional values are questioned. Conger and Kanungo (1987) determined charisma is an attributional phenomenon where subordinates attribute qualities to the leader.

Transformational leadership. Additional researchers described leadership theories appropriate for the rapidly

changing times. Bennis (1989) described good instincts, risk taking, making use of chaos, and innovativeness as interrelated themes necessary for leadership. Burn's (1978) described a Transforming Leadership Process that could be exhibited by anyone in the organization. He defined leadership as a two level process of evolving interrelationships. There is a micro-level process between individuals and a macro-level process in the organization's social system. Transforming leadership mobilizes power to change the social system and reform the institution. Reforming the institution is fundamental to implementing a team based organizational design.

Bass (1985) defined transformational leadership in terms of the leader's affect on followers. Leaders use charisma, intellectual stimulation, and individualized consideration when they want to make followers aware of important organizational outcomes. Transformation leaders try to activate followers' higher order needs, like self-actualization, and transcend their own self-interests for the sake of the organization. At the same time, transformational leaders empower and heighten the importance of follower contributions to the organization. Increasing employee contribution is inherent in team based organizations.

Bass (1985) also distinguished transactional and transformational leadership as a mutually exclusive process.

Transactional leadership is based on contingent rewards and management by exception. The leader actively searches for deviations from standards and rules and actively takes corrective action when divergence is found. A passive leader intervenes only if standards are not met, and a laissez-faire leader abdicates responsibilities and avoids making decisions.

Transformational leadership is associated with turning a crises into an opportunity. This form of leadership is about change, innovation, and entrepreneurship. Substitutes for leadership are also about changing organizational characteristics that support shared decision making and empowering employees.

Another important trend in the leadership research is the identification and evaluation of substitutes for formal leadership. Kerr and Jermier (1978) indicate characteristics of subordinates, task, and organization can substitute for or neutralize hierarchical leadership. Early critics insisted the categories are too broadly defined and that the researchers need to differentiate between substitutes that reduce the importance of leader behavior or behavior that can be performed by someone other than the formally designated leader (Yukl, 1989).

Manz and Sims (1990) postulated that self-managing work teams are another substitute for leadership. The following

discussion will elaborate in detail leadership differences when using team based work designs.

Summary. Leadership research has evolved into a multifaceted body of literature. Yukl's Integrating Conceptual Framework seems to include most previous models. However, today's organizations are changing the situational variables and intervening variables in response to increased competition. In addition, the managerial behaviors defined by Yukl are now performed by lower level employees in team based organizations (Burrell, 1992, 1993; Mohrman, Cohen, & Mohrman, Jr., 1995; Orsburn, Moran, Musselwhite, & Zenger, 1990). Does that mean that leadership is different? Yes, whenever one aspect of a system is changed other elements must and do alter (Pasemore, 1994).

Work Design

The next section explores the broad topic of work design from a historical perspective. Work design is important for many reasons; examples relevant to this study include the impact of Scientific Management on the design of work, trends in industrial humanism, and its affect on employee job satisfaction and performance. Early contributions to job design research by Herzberg, and the Hackman and Oldham Job Characteristics Model (JDI) are discussed. The JDI provides the conceptual foundation for the Socio-Technical Systems approach to job redesign which is often used when implementing self-managing work teams.

JDI concepts are embedded in Hackman's Leading Groups in Organizations and Cohen's Self-managing Team Effectiveness, the two theoretical models relevant to this study.

The segment traces manager efforts to improve employee job satisfaction, and the relationship between job satisfaction and performance. This portion also analyzes the relationship between employee satisfaction and supervision.

The section next examines the socio-technical systems approach to job design and the ensuing new roles for non-management employees in team based organizations. New roles for empowered employees in team based organizations are examined. The section includes research findings pertaining to employee job satisfaction, satisfaction with supervision, and performance.

The work design topic concludes with an examination of Hackman's Leading Groups in Organizations, and Cohen's Self-Managing Team Effectiveness. Dimensions for high performance organizations and the potential impact redesigned jobs have on employee satisfaction and performance are discussed.

Scientific management. American industry was changed dramatically by the Industrial Revolution. Achieving efficiency by standardizing manufacturing techniques and processes was one objective during this production era. Standardization was expected to increase output and reduce

costs. Early approaches to job redesign included Fredrick Taylor's Scientific Management and the fractionization of jobs. Some characteristics of scientifically managed tasks were the repetitive nature of work, low skill requirements, and high task specialization. This meant that a worker did the same simple job all day long, with the pace of the work set by the machine or assembly line. The tools and techniques used to do the job were specified by industrial engineers. Employees had little chance for social interaction.

Human relations. Industrial Humanism and the human relations movement studied ways to make workers happier on the job. Herzberg, an early contributor to this movement, thought the nature of the tasks should be changed. Herzberg called this job enrichment as opposed to job enlargement which simply added more tasks. The researcher identified factors intrinsic to the job that satisfied people, i.e., achievement, recognition, responsibility, and opportunity for personal growth. These enriching factors were called motivators. In addition, he identified non-job related factors that were dissatisfying, such as, company policy, supervisory style, and co-worker relations. These dissatisfiers were called hygiene factors. Although, Herzberg's Two Factor Theory was criticized for limitations and oversimplification, current work in job design can be traced to his work (Wood & LeBold, 1970).

Job characteristics model. Hackman and Oldham (1976) suggested four reasons to redesign work with their Job Characteristics Model:

1. Altering jobs could increase intrinsic motivation.
2. Directly changing behavior will change attitudes.
3. Changing one part of a system would foster change elsewhere.
4. People can experience personal growth and achieve higher order needs (Hackman & Oldham, 1976).

The Job Characteristics Model has core job dimensions which result in critical psychological states which generate personal and work outcomes (Hackman & Oldham, 1976). There are five core job dimensions in the JDI. Skill variety describes the number of different skills and talents used by the job. Task identity questions whether or not a whole piece of work is completed on the job. Task significance questions whether the job impacts the lives or work of other people. High levels of these three core dimensions can result in the experienced meaningfulness of the work. Another core job dimension, autonomy, asks whether the individual has discretion over procedures or scheduling. High autonomy is said to increase the experienced responsibility for outcomes of the work. And the last core dimension, feedback, provides individuals direct and clear information about their performance or the results produced. Employee growth need strength is a moderator variable.

The researchers developed the Job Diagnostic Survey from which an individual could derive a Motivating Potential Score (MPS). Low or near zero scores on any variable reduced the MPS scores close to zero. Hackman and Oldham (1975) acknowledged problems in measuring the MPS construct. As such, understanding of the concept was limited. Nevertheless, the MPS initiated a stream of research concerning job satisfaction, performance, and satisfaction with supervision.

The researchers suggested the following principles for redesigning work (Hackman & Oldham, 1976). One, form natural work units by combining tasks so employees can see the significance of their work. Two, establish client relationships which potentially increase feedback and skill variety, and may increase autonomy. Three, bring the doing and the controlling of work together, a concept called vertical loading. And four, open feedback channels so performance quality can come from the work and not from supervision.

Research findings. Several conclusions can be drawn among the research findings using the Job Characteristics Model. There is a moderate relationship between job characteristics and job satisfaction, a stronger relationship in employees high in growth need strength (GNS), and situational characteristics are more important in determining satisfaction for employees low in GNS (Fried &

Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985). Additional research found statistically significant interaction effects between GNS and growth opportunities, although only high GNS employees responded to growth opportunities (Graen, Scandura, & Graen, 1986). Glick, Jenkins, Jr., and Gupta (1986) found support in the relationship between job characteristics, effort and the JCM and determined it safe to conclude an underlying relationship between job characteristics and attitudinal outcomes.

Other researchers found direct relationships between the core job dimensions and outcome variables (Wall, Clegg, & Jackson, 1978). For example, Miller and Monge (1986) determined a participative organizational climate strongly related to satisfaction. Zeffane (1994) found job satisfaction and work redesign influenced by task variety and participation in decisions. Zeffane (1994) also found task variety more relevant to non managerial employees, while participation and formalization more applicable for manager employees. Also, job satisfaction increases when there is greater certainty about future directions in the organization and when job incumbents receive positive work group performance feedback there is a significant association with satisfaction (Zeffane, 1994). One could expect an association between high performance teams and employee satisfaction in this study.

Additional researchers found positive relationship between individual job satisfaction and performance, that intrinsic rewards are directly tied to performance with a stronger relationship for higher level employees (Petty, McGee, & Cavender, 1984). Other researchers have found the relationship between job satisfaction and performance neither direct or simple (Zeffane, 1994).

A general conclusion among all the studies is the need to improve the psychometric qualities of measures of the constructs. Another limitation of the job satisfaction research is the micro level perspective and the need for longitudinal studies to clarify causal structure of relationship among participation, satisfaction, and productivity (Zeffane, 1994).

Satisfaction with supervision. A more narrow perspective of the job satisfaction research is employee satisfaction with supervision. The majority of the literature returns to the two dimensions from the Ohio State studies, consideration of employees and initiation of structure. A general conclusion found by different researchers is that subordinates are significantly more satisfied with leadership behavior high in a human relations orientation (Castaneda & Nahavandi, 1991; Rowley, Rosse, & Harvey, 1992). Petty and Lee, Jr. (1975) found the relationship significantly higher for subordinates with female supervisors. It seems male subordinates tend to have

lower satisfaction with female supervisors who are higher in the structure dimension (Petty & Lee, Jr., 1975). This same conclusion was found by Callan (1993), who determined that task oriented females had lower satisfaction ratings. The personality of the subordinates made no difference in the relationship between satisfaction and the consideration dimension (Mitchell & Moffitt, 1976). Subordinates with higher levels of job satisfaction report more communication and higher quality communication with their manager (Callan, 1993).

The Castandeda and Nahavandi (1991) study reported interesting differences between bosses ratings and subordinate rating when using 360 degree feedback. Their results indicate bosses rate subordinate managers for technical competence while employees rate their supervisor for structuring behavior. These conclusions suggest different levels in an organization have different needs and wants.

Corporations today function in a competitive, global marketplace. Worldwide competition forces companies to address declining productivity, high costs, and increasing absenteeism and turnover. Many companies believe a competent, committed, and flexible workforce will solve these efficiency and productivity problems. These companies believe the basis for sustained competitive advantage is some form of teamwork. Organizations implementing teams

typically use the socio-technical systems (STS) approach to work redesign. The STS approach embodies the job characteristics model and incorporates those principle when redesigning the work systems.

Sociotechnical systems approach. Organizations today may use one or a combination of three approaches to job redesign: Sociotechnical Systems (STS), Work-Scheduling, and Technical Approaches. The STS model integrates a systems view of the relationship between the people and the technology and embodies the job characteristics model. The objective of this approach is maximized long term performance results.

Congruence between the social and technical subsystems is the objective of an STS redesign. The social subsystem considers the reward and recognition systems, the corporate culture, and leadership and supervision. The technical subsystem includes the type of production processes, the physical work setting, the equipment and technologies for the job itself. Also considered are the time pressures for completing a job.

Team member roles. Work teams have been implemented in many different contexts (i.e., manufacturing, service, and health care organizations) as an attempt to place behavioral control and decision-making autonomy at the work group level. The degree of self-management for a work group depends upon organizational constraints and the maturity of

the team. Many teams are responsible for member safety and meeting quality standards (Irvin & Michaels, 1989). Most teams are encouraged to monitor their own performance and take control over division of labor. Being a team member usually requires cross-functional skills in order to perform a variety of jobs.

Team members are involved in setting goals, planning, and organizing their work (Tichy & Charan, 1989). Members are usually responsible for identifying and solving the group's work related problems. Mature teams may even be involved in hiring, appraising performance, and disciplining members. Peer pressure is often used instead of formal supervision as a tool for motivation (Katzell & Thompson, 1990). Selecting leaders and sharing the leadership function within teams is the norm.

Roles and responsibilities for team members are expanded in a participative environment. Team members now perform many assignments that were once considered leader responsibilities. Consequently, the role expectations and behaviors for effective team leadership are different.

There are two models relevant to this study that integrate appropriate leader behaviors, team member roles, and self-managing organizations. One model is Hackman's (1987, 1992) *Leading Groups in Organizations*, which specifies a theory of self-management in organizations. The other model, conceptualized by Cohen (1994) *Self-Managing*

Team Effectiveness, has similar dimensions. Of particular importance for this study is the expert and available coaching and encouraging supervisory behaviors, respectively.

Leading groups in organizations. Hackman (1987, 1992) presented a model (shown in Figure 2), that integrates the job characteristics model and the SocioTechnical approach to work redesign and unit performance. The objective is a high performing, self-managing organization. Hackman (1992) defined indicators of performance outcomes, indicators of performance processes, and enabling performance conditions.

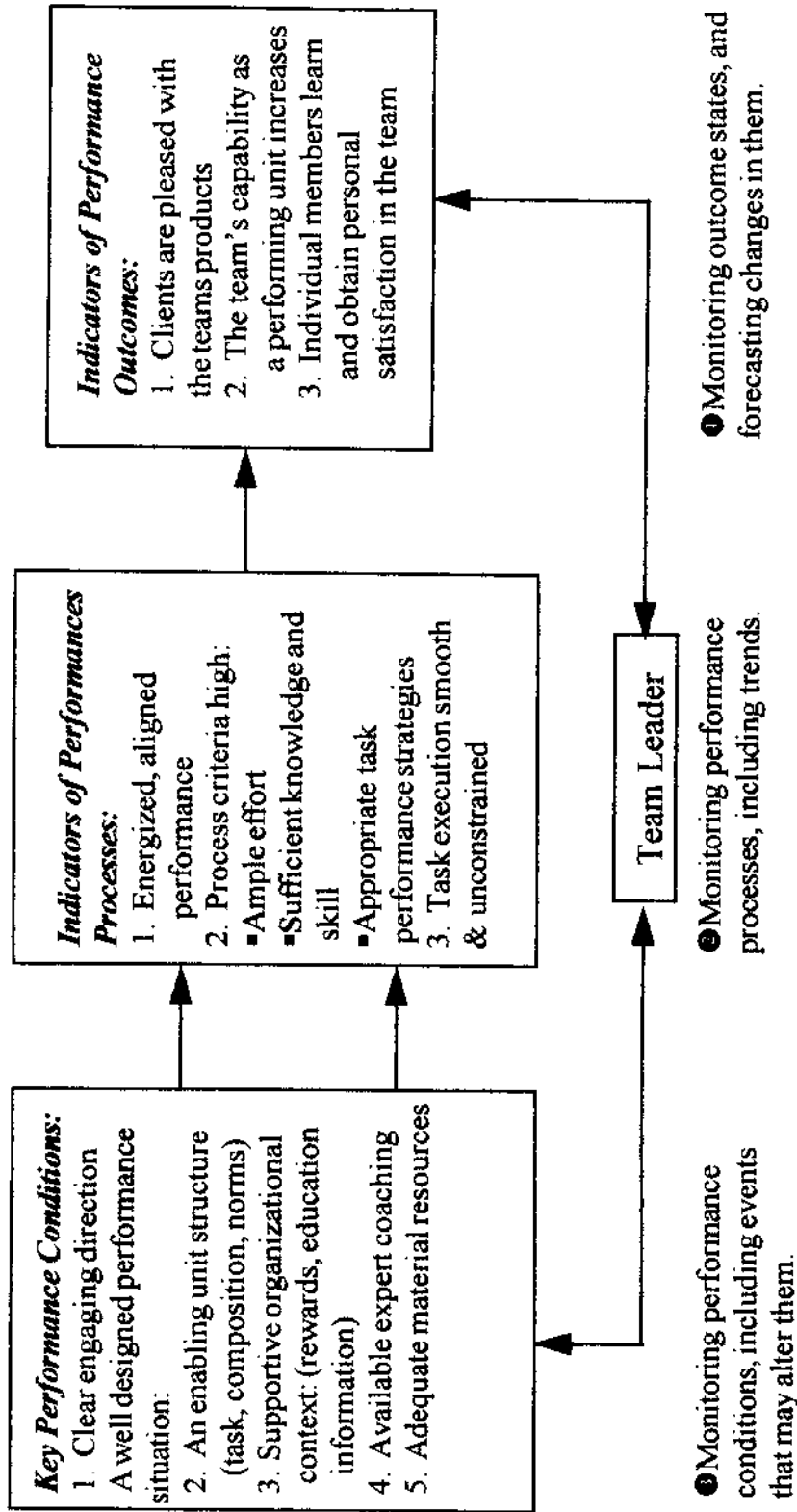
There are five enabling performance conditions that foster and support effective self-management. Those are: clear, engaging direction, an enabling unit structure, a supportive organizational context, available, expert coaching, and adequate material resources (Hackman, 1992).

First, it is appropriate for people with legitimate authority to determine the business of the organization or specify a clear and engaging direction. Clear objectives orient people toward common goals and facilitates coordinated action. Articulated goals energize employees and provide criterion for testing alternative possibilities.

The second criteria, an enabling performing unit structure, consists of task design, unit composition, and expectations about appropriate behavior. Tasks are designed with high levels of skill variety, task identity, and task

Hackman's Leading Groups in Organizations

Figure 2.



The Team Leader's Monitoring Function

significance. Employees should be given autonomy to decide how the work is carried out and should receive direct knowledge of the results. Unit composition includes the size of the work unit, a balance of skills necessary to do the job, and competence in working together cooperatively. Employees have expectations about appropriate behavior, are encouraged to continuously assess their performance situation, and include active scanning and strategy planning for improvement.

The third enabling performance condition is a supportive organizational context. Organizational context includes the reward system that recognizes and reinforces unit performance, preserves the line of sight to outcomes received, and are group based. The education system is also important as training, technical consultation, and staff experts are available to the performing unit. In addition, the information system provides relevant and timely data so teams can monitor their performance.

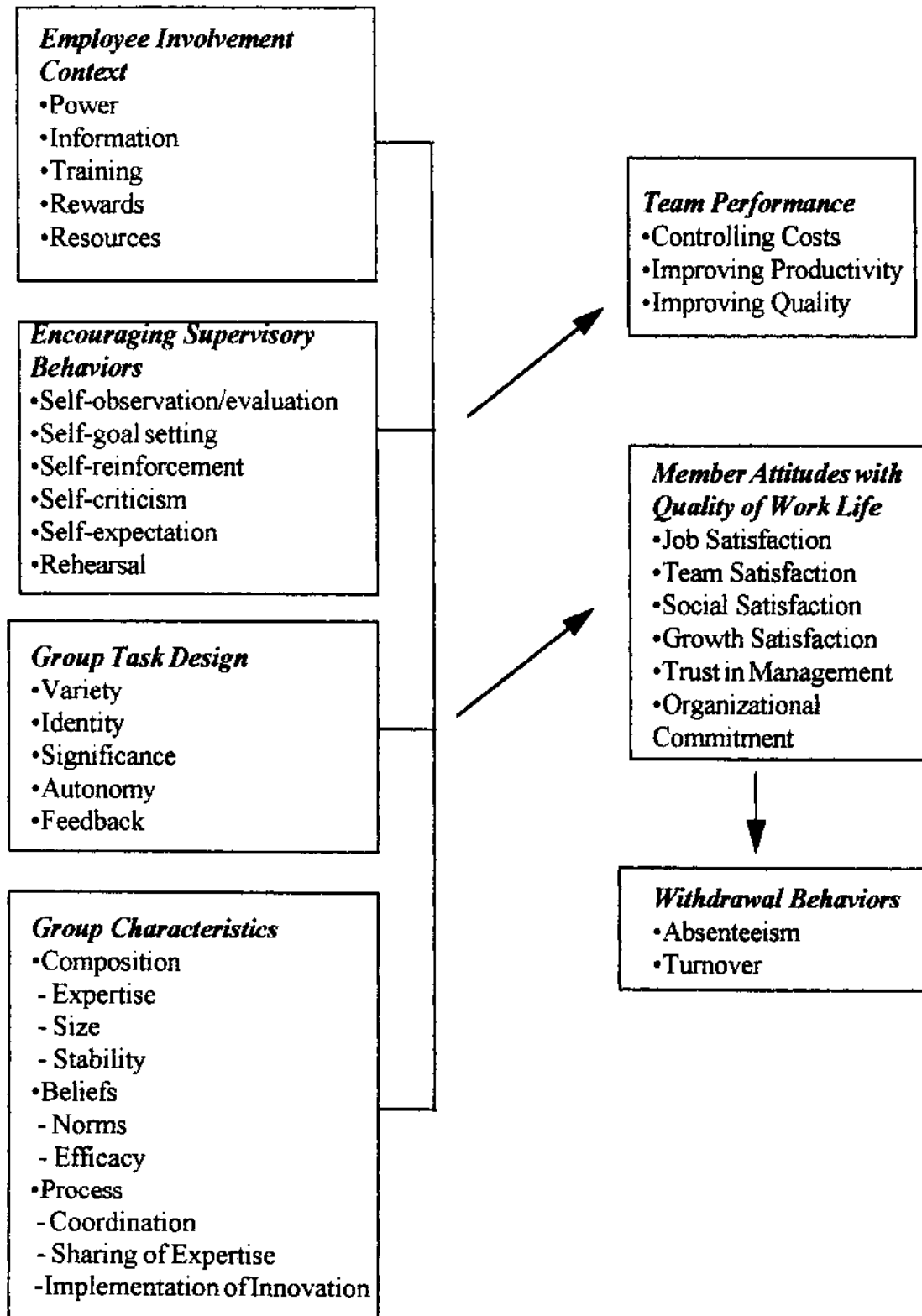
Expert, available coaching is the fourth enabling performance condition. Coaching and consultation should focus on the process gains and losses around task performance. The coaching objective is help people minimize losses, and share expertise so they can learn from one another. Determining the specific coaching behaviors that relate to high performance is one purpose of the study. The

fifth enabling performance condition is adequate material resources or the money, space, tools, and staff time.

Indicators of effective performance processes are: energized, aligned performance, high process criteria, and smooth, unconstrained task execution. Performance outcomes Hackman (1992) considers important are: clients pleased with the units product, improved capability over time, and the enhanced growth and well being of unit members. The responsibilities of the unit leader include monitoring, diagnosing, forecasting, and taking action about performance conditions.

Cohen (1994) presents a model that integrates job characteristics and SocioTechnical systems work redesign (see Figure 3). Cohen (1994) has three criterion variables: team performance, i.e., cost, quality, and productivity; member attitudes concerning job, team, social, and growth satisfaction; and withdrawal behaviors, absenteeism and turnover. Trust in management and organizational commitment are included with member attitudes. One portion of the model, encouraging supervisory behaviors, is a predictor of these criterion. The current study tested this fragment of the Cohen model. Interested readers are encouraged to find the complete model and indepth discussion in Advances in Interdisciplinary Studies of Work Team. Manz and Sims (1987) are the theoretical founders for encouraging

Figure 3: Cohen's Self-Managing Team Effectiveness



supervisory behaviors. The Manz and Sims work is also one foundation for the measures used in the current research.

Each of the integrative models includes a team leadership dimension. Hackman defines available, expert coaching and Cohen delineates encouraging supervisory behaviors. Other researchers have explored work group characteristics and effectiveness or the relationship between team design and maintenance on performance and satisfaction (Campion, Medsker, Higgs, 1993; Root, 1994; Wageman, 1996).

Determining and measuring the leader behaviors appropriate for a team based design is an extension of previous research (Burrell 1992, 1993, 1995). Determining the specific skills associated with high performance can guide theory development and the effectiveness of leaders and managers in team based organizations. The purpose of this research is to investigate the relationship between leader behavior and team performance. Theoretically, team leaders should be coaches and mentors, not supervisors or directive managers (Hackman, 1992; Manz & Sims, 1987). Few empirical studies have tested either the Hackman or Manz and Sims theories. Thus, there is a lack of knowledge about the appropriate behavior for leading self-managing individuals, work groups, and teams. This study assessed the relationship between encouraging supervisory and coaching

behaviors and team performance, employee satisfaction, and customer satisfaction.

Team Leadership

The literature indicates that team leadership requires different skills because team members have different roles. Helping leaders become more effective will help team members master their new roles and assume additional responsibilities.

Effective leadership furnishes a critical element that impacts the overall success of all corporations (Bass, 1989). Legitimate authority, power, and influence are fundamental parameters for a leadership appointment (Yukl, 1989). Appropriate use of authority and responsibility in a team based-organization are complicated issues when decisions are made at the work group level. The difference exists in how leadership functions are administered (Peters & Austin, 1985). The source of control shifts from the leader to the follower (Manz & Sims, 1984).

Foregoing research indicates team leaders have a distinct and very important role. Flexibility and a high level of interpersonal skills are pivotal domains when leading teams. In addition, communication becomes even more essential in a team environment because the team needs to have adequate information in order to make good decisions. Although the team assumes many problem solving and administrative duties, efficient administration and

effective cognition are important skills for team leaders. While modified, the role of leadership is still very important in a participative environment.

Leadership. The roles of team leader include coaching, advising, or facilitating (Jessup, 1990; Peters & Austin, 1985). Coaching requires discovering actions that enable and empower people. Empowered teams contribute more fully, productively, and with less alienation to organizational goals (Evered & Selman, 1990). Facilitators/coaches often provide suggestions, resources, and encouragement to more than one team (Gist, Locke, & Taylor, 1987). Spans of leadership can sometimes number 75-100 people, a number that makes traditional direct control impossible.

Effective leaders encourage teams to manage their own affairs, such as asking for solutions to problems, not telling group members what should be done (Manz & Sims, 1984; Odiorne, 1991). Encouraging teams to establish their own performance goals helps gain member commitment, and reduces discipline problems (Cheney, 1990). Involving team members in planning and decision-making is a basic team leadership principle (Bookman, 1987-88). Influencing others toward change and innovation is a fundamental role of leadership and ensures a successful transition (Byrd, 1987; Sherwood, 1988).

Leadership that empowers the workforce is essential in team environments. Leaders demonstrate a positive belief

and continuous faith in teams by modeling appropriate behavior, and these beliefs become a self-fulfilling prophecy (Bell, 1987; Bell & Zemke, 1989; Green, Knippen & Vincelette, 1985).

Communication. Another major portion of team leadership is communication (Anderson & Robertson, 1985; Courtright, Fairhurst, & Rogers, 1989). Questions are used to encourage, support, clarify, explore, and interpret information (Miskin & Gmelch, 1985; Wright & Taylor, 1985). The reflective question is used to position judgment and decision-making on the team (Manz & Sims, 1984). Active listening by leaders supports team members, which facilitates total team functioning (Manz & Sims, 1987). Interpreting information and giving feedback develops effective teams and creates successful leaders (Komaki & Desselles, 1989).

A shared vision and common mission are important elements in a team environment (Bradford & Cohen, 1989; Manz & Sims, 1986). Leaders ensure a vision is created, and impart the values and philosophy of the organization's culture (Barry, 1992; Sherwood, 1988). Strong personal values, such as justice and integrity, that are non negotiable, are essential to good leadership (Kuhnert & Lewis, 1987). Communicating the vision and making the values tangible is a leader function (Barry, 1992; Bennis, 1984).

Interpersonal skills. Encouraging team members to openly discuss problems and disagreements is another element of team leadership (Manz & Sims, 1980). Managing conflict, to minimize disruption and maximize effectiveness, is a vital part of problem solving (Kormanski, 1982). Being honest with team members creates an atmosphere of mutual trust and understanding.

Organizational success of the 90's hinges on interdependence and people working together with the customer (Brown, 1990). Influencing diverse groups to work together and carry out the groups' mission is a challenge to effective leaders (Zenger, Musselwhite, Hurson, & Perrin, 1992).

Administration. Leaders have a spanning and networking function, both internal and external to the organization (Barry, 1992; Kaplan, 1984). Leaders of the team act as an information conduit to outside individuals and groups. They provide the communication link within the team, between teams, and to other parts of the organization (Kaplan, 1984; Tichy & Charan, 1989). These reciprocal network arrangements stabilize the organization for the teams (Kaplan, 1984).

Leaders act as a source of technical and company information, which helps teams solve their own problems. Company information helps the team clarify goals, and establish priorities (Sherwood, 1988). Team problem solving

fosters commitment and accountability (Novelli & Koester, 1990). Observing and analyzing team processes in action helps the leader know when to intervene (Miskin & Gmelch, 1985). Work processes congruent with stated values and social environment are an important organizational commitment (Byrd, 1987). Leaders create the social environment surrounding the work system and ensure processes are consistent with the values.

Thinking. Effective leadership determines which organizations succeed or fail (Bennis, 1984). Leaders anticipate the organization's needs by watching market demands and trends (Brown, 1987; Sherwood, 1988). Synthesizing a variety of information helps the leader identify trends that will affect the organization. The leader can then anticipate future issues for the team (Brown, 1987). With an eye toward the future, leaders can identify problems teams are avoiding and help address questions when necessary. Attending to the non-verbal cues displayed by the team members allows the leader to know when to intervene.

Flexibility. Willingness to take risks and buck the tide are important leader characteristics (Hackman & Walton, 1985; Likert & Araki, 1986). Sponsoring innovation and creativity to meet customer and company needs are part of risk taking. Changing course to take advantage of opportunities may sometimes cause opposition, however (Bell

& Zemke, 1989; Zenger, Musselwhite, Hurson, Perrin, 1993). Effective leaders cope with these consequences and uncertainty when taking risks.

Leaders create mental and verbal pictures of desirable future states, while refusing to give up in the face of adversity (Byrd, 1987). Flexible leaders may be possibility thinkers who are responsive to unanticipated organizational and market changes. Adjusting to the unexpected consequences of predictable changes is not problematic for an agile leader. Additionally, adaptable leaders present alternative ideas to the team in the face of changing conditions.

Summary

Leaders and teams play a significant role if today's organizations are going to survive in a global economy. Previous research and the literature have established that roles, responsibilities, and behavioral expectations for leader's differ in a team environment. Theoretical models of team leadership indicate leaders should be coaches and mentors, not supervisors or directive managers. Hackman (1992) describes critical team leadership as establishing the organizational context that supports the teams. The organizational context includes the structures and processes necessary for task accomplishment. One of Hackman's (1992) key performance conditions is available and expert coaching. Manz and Sims (1987) and Cohen (1994) determined encouraging

supervisory behaviors are important predictors of team effectiveness and employee satisfaction. Few empirical studies have examined the team leadership phenomenon. Thus there is a lack of knowledge about the behaviors that are associated with high performance and employee satisfaction.

In addition, corporations today are competing in a global marketplace of rapid change. This corporation determined customer satisfaction the most indicator of corporate profitability. Ensuring customer satisfaction ultimately rests with managers. No prior studies have related leader behavior to customer satisfaction. Thus there is a lack of knowledge about the leader behavior most associated with customer satisfaction.

Problem Statement and Research Propositions

Despite the implementation of several large scale interventions to facilitate the development of self-managed work groups, wide variability exists in work group performance. The reason for this variability is unknown. While the variability is a concern in its own right, the planned introduction of work groups Internationally created a need to understand why the variability existed and what could be done to reduce it. It is paramount to understand the organizational, work group, and individual manager level conditions associated with truly high performing work groups.

This study, a quasi-experimental design, examined both high performing and low performing work groups and their environment to determine what differentiated between them. The study assessed the leader behaviors determined appropriate for teams. This study permits a direct examination of work group performance and the degree to which leader behaviors are associated with high work group performance. Thus a basic research question for the current study is what skills are essential to managing high performing teams?

There are two separate groups of managers, managers of high performing groups and managers of poor performing groups. The major question to be answered is whether or not coaching behaviors differ between managers of high versus low performing work groups. Does one group, on average, exhibit higher coaching behaviors? The question to be answered here is which specific skills are most strongly associated with superior team performance? Do managers of high performing work groups utilize particular competencies when interacting with their teams? Ideally reducing the number of specific skills to a vital few would provide developmental information for managers and improve team performance.

Hypothesis 1: It is expected that there is a positive relationship between coaching behaviors and team performance level.

Work satisfaction by employees is also important. Some aspects of employee satisfaction are within a team managers control. This study assessed employee satisfaction with those items the local managers could control. The primary question to be answered: Do managers of high performing work groups achieve higher levels of employee satisfaction?

Hypotheses 2: It is expected that managers of high performing teams achieve higher levels of employee satisfaction with their manager than managers of low performing teams.

Another important research question for this study: is there a relationship between coaching behaviors and employee satisfaction? What team leader skills are associated with greater employee satisfaction?

Hypothesis 3: It is expected that there is a positive relationship between coaching behaviors and employee satisfaction with their manager.

Customer satisfaction is an important performance criterion for managers in this study. The work group is directly responsible for customer satisfaction. Any problems the group is unable to solve are immediately escalated to the customer service field manager. Thus, another important research question for this study is there a difference between managers of high performing and low performing teams on customer satisfaction?

Hypothesis 4: It is expected that managers of high performing teams achieve higher levels of customer satisfaction than managers of low performing teams.

Another important research question for this study: is there a relationship between coaching behaviors and customer satisfaction with service? What team leader skills are associated with greater customer satisfaction?

Hypothesis 5: It is expected that there is a positive relationship between coaching behaviors and customer satisfaction

CHAPTER II

METHOD

This chapter describes the organizational setting where the research was conducted. Section one describes the organizational environment. The second section defines the role of managers in that environment. The third section explains the sampling and data collection methodology. And, the final section describes the measures, the procedures, and the data analysis used.

Participants

Forty three (43) first level customer service field managers and one hundred seventy five (175) work group members participated in the study. The sample demographics identified were age, tenure, race, and gender. Manager participants were primarily white males between the ages 40-49 with 16-30 years tenure. Work group members were primarily white males 30-49 years old with 6-25 years tenure. Complete demographic details are shown in Appendix B.

Organizational Setting

Xerox is a large multinational firm that employees 80,000 people Worldwide. The organization manufactures, sells, and maintains office equipment. Xerox invented its

industry, and offers "document solutions" to its customers. The overall organization operates in a matrix structure, while the United States Customer Services Organization (USCO) where the research was conducted, is organized in functions. The three primary functions are sales, service, and business operations. The service organization maintains and repairs the equipment in each customer location.

USCO employees approximately 16,000 people in 68 districts across the United States. A district manager is at the head of each district. Each district, in turn, is divided geographically and/or by the type of machine serviced. Field managers are responsible for these sub-districts and have approximately 20-30 customer service technicians report to them. The service technicians are organized into work groups, and repair the office equipment.

Xerox USCO started implementing work groups in 1988. The customer service division provided team training to all work group members and their managers. All field employees work in groups. This organization is considered an appropriate environment for testing team leader behaviors.

Customer service manager role. Most manager work was done in meetings of various kinds: a special task force, with other managers, attending work group meetings, and interactions with other functions in the district, i.e., sales and business operations. The field manager's (FM) role had three primary components: work group development,

customer interaction, and administration. The amount of time spent in different activities varied between districts and individual managers.

Work group development includes coaching process owners and inspecting the processes used by the different groups. The FM also obtains, filters, and or interprets information from headquarters with employees. The FM assists individuals and groups with customer and business problems, encouraging the development of business maturity. Sometimes the FM provided directions with the end of the month install crunch. In addition, any customer problems the work groups are unable to resolve are escalated to the FM. Examples of such problems were site planning and install issues.

A high percentage of FM time is spent doing administrative activities like human resource management and implementation of programs from headquarters. Other administrative activities include getting pertinent data to the work group, analyzing the reports, and distributing performance updates. The FM also oversees parts inventory management and helps plan manpower strategies with the district manager.

Infrequently, the FM attended to the emotional state of employees. Examples include framing information from headquarters in a positive manner so work groups accept and move on it. The employee satisfaction measure, described in

detail later, asks employees to evaluate how well the field manager actually fulfills the above role requirements.

Measures

Data were obtained for the separate constructs by different tools but during the same time frames. Reducing common method variance was the objective here (McGrath, 1986). The SMT Leader Survey measures coaching behaviors considered appropriate for this organization (Burress, 1992, 1993, 1995). Employee satisfaction data was archival data obtained from annual employee satisfaction surveys. The Immediate Manager Index (IMI) is a twelve item Subscale from the satisfaction measure.

Coaching Behaviors

The SMT Leader Survey is an instrument supported by research with self-managing team leaders (items are shown in Appendix A). The survey measures a facilitative style of leadership appropriate for work teams. The instrument is a suitable tool for team leader training and development programs (Burress, 1993).

Previous research. Team leadership has been the subject of this author's programmatic research over a seven year period. Deriving appropriate team leader behaviors was the objective of the initial study. An instrument measuring team leader behaviors was developed from the results of the second study. Evaluating and improving the psychometric qualities of the instrument were the objectives of the third

study. Predicting the appropriate skills for leading high performing teams is one objective of this study.

Team leader behaviors have been evaluated in three previous research projects (Burrress, 1992; 1993; 1995). The initial research identified the most important skills and abilities for leaders in a self-managing team environment (Burrress, 1992). A job analysis provided the basis for the project conducted in a manufacturing organization in the Southwestern United States. The leaders studied were the division level equivalent to middle managers and first line supervisors in traditional organizations. A limitation of the study was the small number of participants ($N = 37$) from a single location.

A job analysis identifies the duties of a job by the people who are doing the work. Job incumbents rate the identified tasks on three dimensions: frequency, level of difficulty, and the criticality of the consequences that may result from inadequate performance (Gael, 1988). The most important duties surface from these ratings. The human attributes needed to perform the tasks are inferred from the importance ratings (Gael, 1988). The inferred abilities became the foundation for the second study.

A second study broadened the scope of important leader behaviors across diverse industries and regions of the United States (Burrress, 1993). The research tool was a fifty item questionnaire developed from the initial job

analysis. Questionnaires were administered to individuals who attended the 1991 and 1992 International Conference on Self-Managed Work Teams. Also, individuals who attended a workshop titled "An Orientation to Self-Managed Teams" and "The Problem of the First Line Supervisor" were asked to complete the survey. Some participants were team leaders, some were internal organizational development experts, and some were external consultants hired for their expertise with organizations using teams. All of the participants could be considered content experts regarding team leader behaviors and their input provided face validity for the items in the SMT Leader Survey.

One hundred five people from forty four companies participated in the investigation. Demographic information was used as the independent variables in the analysis. The independent variables included: tenure in position, level in the organization, relationship between the amount of contact rater's had with the people in the position they were rating, how rater's worked with the teams in their organizations, (i.e., team member/leader, supervisor/group leader, internal/external consultant), gender, age, and educational differences. MANOVA with orthogonal contrasts between the groups found no significant differences in the rated leader behaviors. There was no evidence for potential confounds with the demographic variables in this study.

The instrument, SMT Leader Survey, was developed from the results of the second study. Subject matter experts (SMEs) sorted the items into six categories of skills. Internal consistency reliability evaluated the qualitative item sort done by the SMEs. The six scales, with an average reliability coefficient of 0.78, are: Leadership, Interpersonal Skills, Administration, Communication, Thinking, and Flexibility. Leadership is defined as influencing, encouraging, and developing people. Interpersonal skills include valuing diversity and input from everyone on the team, and addressing the group rather than the individual. Administration includes coordination, process improvement, juggling priorities, scheduling and resource acquisition. Communication comprises listening, sharing information, presenting ideas, and giving feedback. Thinking skills include analytical and anticipatory problem solving, attending to non verbal cues, and exploring multiple sides of an issue. Flexibility is defined as responding to unanticipated change, coping with uncertainty, and deviating from an initial strategy when new contradictory information is available. The Survey contains thirty six items reflecting abilities found most important to effective team leadership.

The SMT Leader Survey was developed as the result of a need expressed by organizations using work teams. The survey analyzes behavioral data that leaders and teams can

use to improve the way they work together. Leading teams requires different skills than leading a traditional organization or individuals. Leaders evaluate themselves and receive behavioral feedback and insight from their manager, their peers, and their teams. This type of feedback is operationally defined as 360 degree feedback (Atwater, Roush, Fischthal, 1995; Crystal, 1994). The feedback provides information about unique strengths and specific developmental needs. The focus of the instrument is the growth and development of effective leadership. The emphasis on strengths helps leaders build on their successes.

Test development is an iterative and multi-faceted process. Whenever a test is administered, the test user would like some assurance that the results could be replicated if the same individuals were tested again under similar circumstances. This desired consistency of test scores, or reliability, is a concern for every responsible test user and test developer. Addressing this test development concern and improving the psychometric qualities of the SMT Leader Survey was the objective of the third study (Burress, 1995). Coefficient alpha assesses reliability with a single test administration and was used as an index of internal consistency (Casio, 1987). Subscale reliability coefficients for the test population were: Leadership (.85), Interpersonal Skills (.87), Administration

(.83), Communication (.81), Thinking (.81), and Flexibility (.89). Reliability measures greater than .80 are deemed necessary when making decisions about people (Casio, 1987). Consequently, the SMT Leader Survey is considered a reliable measure for this team based organization.

Employee Satisfaction

The company annually monitors employee' satisfaction with the company and their immediate manager. The Immediate Manager Index (IMI) comprises a twelve item sub scale from the employee satisfaction survey. The IMI indicates the satisfaction level of employees on topics that are within a local managers control. The index is calculated by averaging the percent favorable responses to the 12 items that comprise the index. Employee response on the IMI Index are part of a manager's performance evaluation process.

The IMI Index, shown in Appendix B, asks employees their work, company expectations regarding performance, and how well managers communicate and share information. Employees are asked whether cooperation exists in their department, opportunities exist for their professional growth and development, and if they receive recognition for their performance. These data were obtained from company archival records.

Customer Satisfaction

Performance data was provided by archival records for the six months prior to and six months after data

collection. Customer satisfaction, the performance measure most relevant to this study, is one of six measures of work group performance evaluated. Other performance criteria include: parts expense, response time, repair time, and machine reliability. The multiple measures of performance addresses the potential confound between high performance work groups and customer satisfaction.

Customer satisfaction data were obtained from customer surveys distributed periodically. Customer satisfaction indicates the customer's satisfaction with their machines and service. Customers are either coded as satisfied or as dissatisfied with Xerox's performance based on the survey response. Group performance were the percent of the group's customers surveyed who described themselves as "satisfied" or "very satisfied."

Procedure

Employee satisfaction and performance data were archival information collected and furnished by the company. All data for the comprehensive field study was collected concurrently by two, 2 person research teams who traveled to each of the participating district offices. The administration procedures for the SMT Leader Survey are described in detail.

Sampling and data collection. A nation wide memo was sent to each district manager inviting their district to participate in the study. Participation was voluntary.

Data were collected from seven districts: San Diego, CA; St. Louis, MO; Tennessee; Ft. Washington, PA; Central and Bergen County, NJ; and Hartford, CT. The data were collected for the SMT Leader Survey from July through December, 1994. Employee satisfaction data were collected in September, 1994, while performance data from June through December, 1994. Data were provided by seven district managers and one hundred seventy five people in forty work groups.

Managers in each district were asked to nominate either high or low performing work groups based on the following definitions. High performing groups were defined as: (a) consistently meeting the needs of their customers, (b) appearing to be operating increasingly well over time, and (c) having members engaged in and satisfied with their work. Low performing groups were defined as: (a) frequently failing to meet the needs of their customers, (b) appearing to be operating increasingly poorly over time, and (c) having members that are alienated from or dissatisfied with their work. Managers nominated the participating work groups on the above subjective criteria and not the objective data routinely collected. Manager consensus was required for work group participation.

All customer service field managers in each district were asked to participate in the leader behavior assessment, whether or not work groups that reported to them were

nominated. Manager participation included feedback from their work groups.

SMT leader survey. The SMT Leader Survey was administered by the researcher. An external analysis that generated a feedback report to ensure confidentiality for the managers and employees was done. The external administration was expected to result in more candid feedback.

All the field managers were brought together in a meeting that described the research in detail. Each manager received a package that contained one self and ten feedback versions of the SMT Leader Survey, instructions for obtaining feedback, and an informed consent form (Appendix C). The researchers answered questions about the research, provided instructions for completing the SMT Leader Survey, and offered suggestions for selecting work group members whom manager's felt would provide candid feedback. The managers were informed of the type of feedback they would receive as a group and assured confidentially with their own personal feedback. Each field manager was responsible for obtaining feedback from five to seven work group members, two or three peers, and their manager.

A key contact person, who was neither a manager or a work group member participating in the research, was determined by the research team prior to leaving each location. This individual gathered all the feedback forms

and sent them to the researcher. Typically, the individual was either an organizational effectiveness manager or an administrative assistant. Data for the SMT Leader Survey was computed with computer program that generated a personal report which was sent back to the participating managers. In addition, each field manager received a Summary Report that aggregated data from all participants.

Data Analysis

SPSS EXPLORE, F test, REGRESSION, and GENERAL FACTORIAL MANOVA were used to answer the research propositions and questions. The hypothesis for the study are:

Hypothesis 1: It is expected that there is a positive relationship between coaching behaviors and team performance level.

Hypothesis 2: It is expected that managers of high performing teams achieve higher levels of employee satisfaction with their manager than managers of low performing teams.

Hypothesis 3: It is expected that there is a positive relationship between coaching behaviors and employee satisfaction with their manager.

Hypothesis 4: It is expected that managers of high performing teams achieve higher levels of customer satisfaction than managers of low performing teams.

Hypothesis 5: It is expected that there is a positive relationship between coaching behaviors and customer satisfaction.

Between group differences were computed with an F test comparing the means for Hypothesis 1, 2, and 4 (Tabachnick & Fidell, 1989). A general factorial ANOVA assessed the separate effects of the individual SMT Leader scales in the subjects/manager/performance design. Leader behaviors are the dependent variables in the analysis. The unit of analysis in group research is the group, thus the work group nomination category are the independent variables (McGrath, 1986; Shea & Guzzo, 1987).

REGRESSION determined the relationship between coaching behavior and team performance Hypothesis 1, employee satisfaction Hypothesis 3; and customer satisfaction Hypothesis 5. Managerial behaviors, evidenced by scores on the SMT Leader Survey were the independent variables in the analysis. Work group nomination category, IMI scores of employee satisfaction, and customer satisfaction were dependent variables.

CHAPTER III

RESULTS

In this organization, it appears there are significant differences between managers of high and low performing teams on the employee satisfaction with managers and the customer satisfaction criterion. Further, there is a relationship between some aspects of leader behaviors and employee satisfaction with managers, but less so for customer satisfaction. In addition, flexibility was a coaching behavior that was significantly different between managers of high and low performing work groups.

This chapter reports the results of the statistical analysis performed in the study. Issues with the analysis, definitions of the variables, and examination of the assumptions will be presented first. Second, analysis of the constructs, leader behavior, Hypothesis 1, employee satisfaction with managers, Hypothesis 2 and Hypothesis 3, and customer satisfaction, Hypothesis 4 and Hypothesis 5, will be presented.

Issues with the Analysis

The objective of the study was to establish a direct connection between leader behavior and work group performance. Most managers ($N = 43$) in each district office participated in the study and 37 work groups were included.

One hundred three team members were nominated from high or low performing groups. An additional 72 team members provided data about leader behavior. Performance data were not available for all the work groups nominated. Thus, the number of direct connections in the between groups analysis of manager behavior (Hypotheses 3 and 5) was low ($N = 28$). Also, five managers were responsible for more than one group which created a potential problem of non-independent data. The analysis was conducted with both independent and non-independent data. The results were the same.

The examination of leader behaviors (Hypothesis 1) was a nested design characterized as subjects (work group members) within managers within levels of performance (S/M/P). The additional analysis which created another work group performance level (Hypothesis 2) included all the team members ($N = 175$).

When predicting employee satisfaction from the leader behavior (Hypothesis 4) the available sample was 165 employees. The Immediate Manager Index variable was non-independent data. Customer satisfaction data was available for 37 cases which limited the sample size for Hypothesis 5.

Definition of Variables and Assumptions

The SMT Leader Survey includes a composite score that sums all scale scores and was represented by the variable COMPOSITE. Scale scores on the instrument were the following variables in the analysis: Communication,

Administration, Interpersonal Skills, Leadership, Flexibility, and Thinking. Employee satisfaction with managers was represented with scores from the Immediate Manager Index.

Work groups were defined as high performing and low performing. The validity of the work group nomination category was confirmed by examining differences between the two groups on the nomination criteria performance, quality of work process, and work satisfaction (Wageman, 1996). High and low performing groups were significantly different on these dimensions.

Prior to the analysis, the variables were examined for accuracy of data entry, missing values, and the assumptions of multivariate analysis. No univariate outliers were found, and there was no evidence for multivariate outliers, (Mahalanobis distance < 16.266).

Distributions for the variables Interpersonal skills, Thinking, Leading, Administration were normal when grouped with high or low performance, (Lilliefors = > .20). The Flexibility variability was peaked, (\underline{K} = 3.72), and was negatively skewed (\underline{S} = 3.74). The Communication variable was negatively skewed (\underline{S} = 4.27), kurtosis was acceptable (\underline{K} = 1.78). Work group performance was a dichotomous variable for analyzing the between groups questions and predicting employee and customer satisfaction. Logarithmic transformations for grouped data by level of performance

brought the leader behaviors variables to within acceptable normality assumptions, (Lilliefors $> .05$). The customer satisfaction variable met normality assumptions, (Lilliefors $> .20$).

Distributions for ungrouped data with the variables employee satisfaction, Flexibility, Interpersonal skills, Leading, Thinking, Communication, and Administration were extremely leptokurtic and normality was rejected, (Lilliefors $= < .05$). Logarithmic transformation of the variables improved Administration, (Lilliefors $= > .05$).

Homogeneity of dispersion assumptions were met, (Boxes $\underline{M} = > .001$), (Cochrans C and Bartlett-Box $F = > .05$). The leader behavior variables were highly correlated; singularity was not an issue, however, Flexibility and Thinking were multicollinear, ($\underline{r} = .92$).

Leader Behaviors

Descriptive statistics, means and standard deviations for the 36 items that comprise the instrument are shown in Appendix D. Variable means, adjusted means, and standard deviations are shown in Table 2 below by level of work group performance. Managers of low performing groups achieve slightly higher composite scores than managers of high performing groups, although this did not reach statistical significance. Communication is the highest scoring scale, followed by Administration and Flexibility. Managers of low performing teams approach significance with Flexibility and

Table 2

Variable Mean, Adjusted Mean, and SD by Work Group Nomination Category (N = 103)

Variable	High Performance		Low Performance		F	p	Eta
	Mean	SD	Mean	SD			
Administration	22.62 22.61 ^b	2.69	22.68 22.69	2.06	.005	.94	.015
Communication	25.42 25.56	3.04	25.69 25.55	2.68	.036	.85	.037
Flexibility	22.53 23.01	3.35	24.03 23.54	2.79	3.23	.08	.33
Interpersonal Skills	19.74 19.76	2.76	19.44 19.42	2.43	.71	.41	.16
Leading	21.68 21.67	2.69	21.66 21.68	2.74	.05	.83	.04
Thinking	21.05 21.63	2.91	22.06 21.48	2.90	1.17	.29	.21
Employee Satisfaction	75.38	11.98	60.00	16.27	6.47	.02	.46
Customer Satisfaction	4675.55	149.55	4501.11	148.33	6.78	.02	.52
Composite	136.91	9.43	139.18	6.54	1.07	.34	.11

^b The adjusted mean is the second number for each leader behavior variable.

Thinking skills. The remaining leader behavior scales show little differences. On the contrary, performance scores are very different between the groups on employee and customer satisfaction.

Hypothesis 1

The overall hypothesis that there is a positive relationship between coaching behaviors and team performance was partially supported when further analysis using nested design and regression were conducted. Each will be discussed separately below. Analysis of Variance exposed differences that were not significant with the composite score dependent variable by level of performance. Means and standard deviation for Composite Score by performance are shown in Table 2 above. In addition, 72 cases of SMT ratings were not associated with any manager. Performance data were not available for all the team members who provided SMT ratings.

A general factorial ANOVA assessed the separate effects of the individual SMT Leader Survey scales in the nested S/M/P design. The general factorial permitted the assessment of highly correlated and multiple dependent measures. The separate effects of each dependent variable were tested while the remaining five variables were used as covariates. One hundred three cases were accepted and associated with a manager.

The Flexibility scale was found significant ($p = .02$, Eta Sq. = .05). There were no significant differences between levels of performance on the remaining scales; Administration, ($p = .65$, Eta Sq. = .002); Communication, ($p = .38$, Eta Sq. = .008); Interpersonal skills, ($p = .14$, Eta Sq. = .002); Leading, ($p = .77$, Eta Sq. = .001); and Thinking, ($p = .21$, Eta Sq. = .02).

Logistic regression estimates the coefficients of a probabilistic model involving a set of independent variables (leader behavior) that best predicts the value of a dichotomous dependent variable (work group performance). Logistic regression is robust to violation of normality assumptions. Table 3 below shows leader behavior and employee satisfaction variable means, standard deviations, intercorrelations, and scale reliability.

Table 3

Variable Means, Standard Deviations, Intercorrelations and Scale Reliability (N = 175)

	Variable	M	SD	r^2_{xx}	1	2	3	4	5	6
1	Employee Satisfaction	70.7	12.4							
2	Interpersonal Skills	19.66	2.4	.87	.15					
3	Communication	25.18	3.2	.81	.11	.62				
4	Administration	22.29	2.5	.83	.16	.54	.59			
5	Flexibility	22.90	3.2	.89	.06	.62	.69	.60		
6	Leading	21.79	2.7	.85	.17	.64	.65	.49	.64	
7	Thinking	21.4	3.1	.81	.03	.56	.70	.60	.69	.61

r^2 Cronbach Alpha Coefficients

Table 4 below summarizes the regression models used in predicting work group performance. First, the method "enter," was conducted with all six independent variables in Model 1. This is the default command which enters all variables in a single step. Work group performance was correctly predicted in the model 65.05% of the time (67 of 103 participants). Goodness of fit test with chi square approached significance, see Table 4. Flexibility was the only significant variable in the equation.

In Model 2, a forward "stepwise" procedure was conducted using the observed level of significance without multicollinearity as the criteria for choosing blocks (Thinking is multicollinear with Flexibility). The variables Flexibility, Interpersonal skills, and Communication were entered in block one. Goodness of fit test with chi-square was significant. Interpersonal skills and Flexibility had observed significant levels ($p < .05$), while Communication was not significant.

Additional Analysis. With the S/M/P nested design, there were 72 work group members not assigned to either a high or low performing group (total $N = 175$). A third performance level was created with these subjects, who are conceivably the middle of the distribution. The objective was determining the leader behaviors (independent variables) that predicted work group category (dependent variable) and

Table 4

Regression Models for Predicting Team Performance from
Leader Behavior

	Independent Variables	Beta	p	r ²
Model 1:		Chi-Sq. = 10.88	.09	.03
	Flexibility	-.26	.03	
Model 2:		Chi-Sq. = 9.38	.02	.07
	Flexibility	-.28	.05	
	Interpersonal Skills	.18	.03	
	Communication	.06	.41	
Model 3:		F_(6, 168) = 3.83	.001	.12
	Flexibility	-.33	.006	
	Interpersonal Skills	.24	.02	
	Leading	.24	.02	
	Communication	-.20	.09	
	Administration	-.14	.18	
	Thinking	.09	.47	
Model 4:		F_(4, 170) = 5.25	.0005	.11
	Flexibility	-.34	.002	
	Interpersonal Skills	.22	.04	
	Communication	-.21	.06	
	Leading	.25	.02	

retain as much statistical power as possible. Multiple regression produced some interesting results that can direct future research. Model 3 and Model 4 illustrate these additional analyses.

In Model 3, all leader behavior variables were entered which produced a Multiple R of .35 and R² of .12. There appears to be a linear relationship evidenced by the overall regression F test, see Table 4. Observed significance

levels for the independent variables Interpersonal Skills, Flexibility, and Leading met ($p < .05$) criteria, Communication was marginal, while Administration and Thinking were not significant. Beta coefficients for Flexibility, Administration, and Communication indicate a negative relationship with high performance, while Leading, Interpersonal, and Thinking were positively related to high performance. Examination of tolerances (all variables = $> .36$) indicates multicollinearity is not a problem.

Eliminating Thinking and Administration in regression Model 4 resulted in a significant linear relationship evidenced by the F test. Observed effects for the remaining variables Flexibility, Interpersonal skills, and Leading were significant, while Communication was marginal. The pattern of Beta coefficients was the same. The above tests were duplicated with the logarithmic transformed data which produced the same results.

Employee Satisfaction with Managers

Work group performance was the independent variable and employee satisfaction was the dependent variable in this analysis. Assumptions for ANOVA were met in the between groups analysis. Multiple Regression analyzed the leader behaviors most predictive of employee satisfaction. The manager was the unit of analysis in the following between level of performance test.

Hypothesis 2

The hypothesis that managers of high performing teams achieve higher levels of employee satisfaction with their manager than managers of low performing teams was supported. Analysis of Variance revealed significant differences with the dependent variable employee satisfaction by levels of work group performance. Means and standard deviation for employee satisfaction by performance were: low performance, mean = 63, SD = 14.76, N = 12; high performance, mean = 76.43, SD = 12.16, N = 14. The results were: ($F_{(1, 24)} = 6.47, p = .02$), strength of association, (Eta = .46, and Eta Sq. = .21).

Hypothesis 3

The hypothesis that there is a positive relationship between coaching behaviors and employee satisfaction had limited support. Multiple regression analyzed the transformed independent variables Administration, Communication, Interpersonal skills, Flexibility, Leading, and Thinking with the dependent variable employee satisfaction. The following table summarizes the employee satisfaction and leader behavior regression analysis.

In Model 5, regression method "enter" with all six independent variables produced a Multiple R of .24; and a R^2 of .06. There did not appear to be a linear relationship evidenced by the overall regression F test, see Table 5.

Table 5

Regression Models Predicting Employee Satisfaction with Supervision from Leader Behavior

	Independent Variables	Beta	p	r ²
Model 5:		F_(6, 158) = 1.67	.13	.06
	Flexibility	-.12	.36	
	Interpersonal Skills	.08	.49	
	Leading	.17	.14	
	Communication	.07	.62	
	Administration	.18	.09	
	Thinking	-.18	.14	
Model 6:		F_(6, 158) = 2.93	.04	.05
	Thinking	-.19	.09	
	Leading	.19	.05	
	Administration	.18	.07	

Observed significance levels were marginal for Administration and not significant for the other independent variables. Beta coefficients showed that Flexibility and Thinking had a negative relationship with performance (i.e., greater flexibility and thinking were associated with low performance) while Leading, Communication, Administration, and Interpersonal skills had a positive relationship with performance. Examination of tolerances (all variables = > .35) indicates multicollinearity was not a problem.

Eliminating Interpersonal skills, Communication, and Flexibility in regression Model 6, Table 5, changed the observed significance levels of the remaining variables slightly, Leading became significant ($p < .05$) while

Thinking and Administration remained marginal ($p < .10$). The overall regression F test was significant. Beta coefficients showed Thinking was negatively related to high performance while Leading and Administration were positively related to high performance. The same procedures were run with untransformed data with almost identical results.

Customer Satisfaction

Differences were found between levels of work group performance with the customer satisfaction criterion. Predicting a relationship between leader behaviors and customer satisfaction found little support as information was available for 34 work groups. Table 6 below shows leader behavior variable and customer satisfaction variable means, standard deviations, and intercorrelations.

Hypothesis 4

The hypothesis that managers of high performing teams achieve higher levels of customer satisfaction than managers of low performing teams was supported. Analysis of Variance revealed significant differences with the dependent variable customer satisfaction by levels of work group performance. The manager was the unit of analysis. Means and standard deviation for customer satisfaction by performance were: low performance, mean = 4501.11, $SD = 148.32$, $N = 9$; high performance, mean = 4675.55, $SD = 149.55$, $N = 11$. The results were: [$F_{(1, 18)} = 6.78$, $p = .02$], strength of association, (Eta = .52, and Eta Sq. = .27).

Table 6
Means, Standard Deviations, and Intercorrelations for Customer Satisfaction (N = 34)

	Variable	M	SD	r ¹ XX	1	2	3	4	5	6
1	Customer Satisfaction	4611.1	143.1							
2	Interpersonal skills	19.69	2.4	.87	.06					
3	Communication	25.67	3.2	.81	.09	.83				
4	Administration	22.72	2.5	.83	.09	.79	.70			
5	Flexibility	23.42	3.2	.89	-.16	.60	.79	.67		
6	Leading	21.70	2.7	.85	.10	.56	.71	.65	.53	
7	Thinking	21.56	3.1	.81	-.07	.55	.74	.73	.92	.62

¹Cronbach Alpha Coefficients

Hypothesis 5

The hypothesis that there is a positive relationship between levels of coaching behaviors and customer satisfaction was not supported. The most likely reason was the limited sample size, as total cases were 34 and r^2 of .24. Results are shown in Table 7.

In Model 7, all independent variables Administration, Communication, Flexibility, Interpersonal skills, Thinking, Leading were entered. Table 7 shows no linear relationship was found evidenced by the overall regression F test, the correlation between the variables was Multiple R of .48. The variables Communication and Flexibility had observed significance levels ($p < .05$) while Administration, Leading, Thinking, and Interpersonal skills were not significant. Beta coefficients revealed a negative relationship between Flexibility and Leading with high performance while Interpersonal skills, Communication, Administration and Thinking had a positive relationship. The small sample size and insufficient ratios limited further exploration of the data.

Additional Analysis

A factor analysis was conducted combining the leader behavior data from the current study with data from a previous study (Burress 1995). Factors and their coefficients are shown in Appendix E. The factor analysis revealed three fairly consistent dimensions. These new

Table 7

Regression Models Predicting Customer Satisfaction from
Leader Behavior

	Independent Variables	Beta	p	r ²
Model 7:		$F_{(6, 30)} = 1.48$.22	.22
	Flexibility	-1.01	.04	
	Interpersonal Skills	.58	.18	
	Leading	-.23	.41	
	Communication	1.04	.04	
	Administration	.52	.16	
	Thinking	.17	.72	

variables were created from SMT Leader Survey items and analyzed with the between groups differences. The factor Structure was defined as the leader behaviors that related to task and process. The factor Consideration were the leader behaviors having to do with interpersonal interaction. And the factor Decisiveness were items suggesting firm behavior.

Differences Between High and Low Performance

Means and standard deviations by work group performance level are shown in Table 8. Work group performance was the independent variable and the factors were dependent variables in the ANOVA tests. Decisive was marginally significant, while Structure and Consideration were not significant in three separate comparison of means tests.

Table 8

Variable Mean and SD by Work Group Performance (N = 103)

VARIABLE	High Performance N = 55		Low Performance N = 48		$F_{(1, 101)}$	p	Eta
	MEAN	SD	MEAN	SD			
Structure	78.95	10.15	80.71	9.55	.83	.37	.09
Decisive	13.40	3.15	14.44	2.18	3.66	.058	.19
Consideration	28.49	3.54	28.25	2.81	.14	.71	.04

Predicting Employee Satisfaction from Leader Behavior

The independent variables Structure, Consideration, and Decisive were used to predict employee and customer satisfaction. Table 9 shows that Consideration has a positive relationship with employee satisfaction and correlated higher than other variables. The independent variables Consideration and Structure correlated highly with each other.

There was a significant linear relationship between employee satisfaction and the independent variables Consideration, Decisive, and Structure [$F_{(3, 161)} = 2.72$, $p = .05$]. The correlation between the variables was Multiple R of .22; the amount of variability explained by the model is R^2 of .05. Observed significance levels for the independent variables were: Consideration, ($p = .02$)

Table 9

Means, Standard Deviations, Scale Reliability and Intercorrelations with Employee Satisfaction (N = 165)

	Variable	M	SD	r_{xx}	1	2	3
1	Employee Satisfaction	70.73	12.42				
2	Decisive	13.48	2.89	.86	-.002		
3	Structure	78.93	10.03	.98	.11	.31	
4	Consideration	28.36	3.22	.52	.21	.24	.71

Decisive, ($p = .57$) Structure, ($p = .58$) Beta coefficients are: Consideration = .26, Decisive = - .05, Structure = - .06.

There was not a linear relationship between the dependent variable customer satisfaction and the independent variables Structure, Consideration, and Decisive, [$F_{(3, 16)} = .59$, $p = .63$]. The correlation between the variables was Multiple R = .32; the amount of variability explained by the model is $R^2 = .10$. Observed significance levels for the independent variables were: Consideration, ($p = .68$) Decisive, ($p = .26$); Structure, ($p = .46$). Beta coefficients are: Consideration = .16, Decisive = .28, Structure = - .28. Again the most likely reason is the small sample size. Table 10 illustrates means, standard deviation, and intercorrelations among the variables and scale reliability. Structure and consideration are negatively related to customer satisfaction while Decisive relates positively.

Structure and Consideration are highly correlated independent variables (.77).

Table 10

Means, Standard Deviations, Scale Reliability and Intercorrelations with Customer Satisfaction (N = 20)

	Variable	M	SD	r_{xx}	1	2	3
1	Customer Satisfaction	4597.05	170.18				
2	Decisive	14.09	1.67	.86	.25		
3	Structure	81.54	5.69	.98	-.11	.18	
4	Consideration	28.78	1.39	.52	-.07	.15	.77

CHAPTER IV

DISCUSSION

The findings in this research investigated the overall contribution of leader behavior to team effectiveness. In addition, subtle differences were distinguished between aspects of leader behavior and the relationship to team performance and satisfaction. High performing teams are more likely to satisfy customers and are more satisfied with their manager than low performing teams. Flexibility differentiated managers of high or low performing teams more than any other scale. However, the relationship was negative with high team performance and employee satisfaction. Interpersonal skills were positively associated with team performance, while Leadership was positively associated with team performance and employee satisfaction. The relationship between leader behaviors and customer satisfaction was not significant; the sample size was a likely limitation.

This chapter is composed of three primary topics: major findings, the implications of these findings for research, and implications for practice. Important findings in the following areas are considered: the study's contribution to the team effectiveness literature, coaching

behaviors that help the team, and coaching behaviors that hinder team performance and satisfaction. The unexpected results concerning customer satisfaction and the limitations of the study are also discussed.

The chapter also considers implications for future research which includes manager-subordinate interaction, historical leadership constructs initiating structure and consideration, and power/authority issues. The chapter concludes with suggestions for the practice of leadership in organizations seeking high performance. The section contemplates organizational design as a learning opportunity for managers and evaluates the value of leader behavior assessment as a developmental tool enabling managers and teams to work together.

Major Findings

An large body of literature suggests that leader behavior is important to self-managing team effectiveness. This study was conducted to increase our knowledge about appropriate behavior for leading self-managing individuals, work groups, and teams. Theoretical models of team leadership indicate leaders should be coaches and mentors, not supervisors or directive managers (Cohen, 1994; Hackman, 1992; Manz & Sims, 1987). Cohen (1994) predicts that "encouraging supervisory behaviors" are essential for self-managing team effectiveness. Hackman (1992) identified "expert and available coaching" as an enabling performance

condition. The leader behavior measures used in the study were developed from the Manz and Sims theoretical team leadership literature. The results indicate that leader behavior accounts for a very small percentage, 10%, of the variance between high and low performing teams.

This research was part of a comprehensive field study that tested Hackman's theoretical model for leading self-managing teams (Wageman, 1996). Using different measures, Wageman found that coaching influenced team member satisfaction and group process while performance was more strongly influenced by organizational design conditions and self-management. The organizational design conditions most important were a clear direction, and tasks and rewards designed for teams and not individuals. Wageman determined that leader behavior accounted for approximately 20% of the variance between high and low performing teams. Her findings are consistent with the current study regarding performance and satisfaction. Both studies concluded that leader behavior is a less important component of team effectiveness than initially expected, and increased our understanding of the leader's role and appropriate behavior in an empowered team environment.

Coaching Behavior That Helps

While limited in their impact, the findings indicate that interpersonal skills and leadership were associated with high performance teams. Manager administration and

coordination activities on the other hand, nurtured employee satisfaction.

Interpersonal Skills. High levels of interpersonal skills by managers predicted high team performance. Interpersonal skills include: how well the manager encourages collaboration, fosters smooth team interaction, and works through conflicts. Capitalizing on diversity and valuing input from everyone on the team are also important leader skills. Encouraging the team to address interpersonal problems as a group is another key manager skill. Furthermore, establishing personal growth opportunities for team members was found important.

The positive coaching behaviors above are consistent with the team effectiveness literature. Finding interpersonal skills important for team leadership endorses the Manz and Sims (1987) research. These conclusions also support Bass' (1981) recommendation that today's managers must balance technical, conceptual, and interpersonal skills.

Leadership. High performing team leaders encourage responsibility, accountability and the team's monitoring of their own performance goals. These leader skills encourage teamwork and foster an environment where the team coordinates its own work. The leader who exhibits these skills, places decision making authority with the team, based on team member knowledge and skills. Such leadership fosters team member learning and provides opportunities for

teams to acquire and apply new skills. This leader challenges the status quo and demonstrates willingness to change.

Leaders who encourage, influence and provide development opportunities are more likely to have high performing teams and more satisfied employees. Treating job openings in their department as a development opportunity for employees are obvious methods managers can use to increase employee satisfaction. The findings also suggest high performing employees receive a sense of personal accomplishment at work, are satisfied with their work load, and how they are recognized for this performance.

The positive relationship between employee satisfaction and managers that provide development opportunities also supports Miles and Snow's (1994) human investment managerial philosophy. This philosophy assumes that employees are trustworthy and have the potential to continually develop new skills and increase their business understanding. Providing development opportunities is the manager's basic task. Employee acquisition of new skills builds the organization's adaptive capacity and ensures a viable future. The findings in the study suggest a human investment philosophy is easier to have with high performing teams. Does low performance inhibit a human investment philosophy or does the existing managerial philosophy inhibit performance?

Administration. Leaders that coordinate activities between teams, implement process improvements, and handle scheduling requirements create an environment that supports the team. Other important leader skills include the ability to acquire resources and the leader's attention to detail.

The positive relationship between manager administration activities and employee satisfaction was expected. These findings suggest employees welcome interteam coordination and assistance with process improvements. These findings imply that designing organizational processes is an important manager role. Can one then infer that another important manager role is establishing and coordinating relationships within and between other organizations? These inferences are supported by the Miles and Snow (1994) work with new organizational forms. This is especially important as companies create interorganizational alliances and new network types of structures.

Coaching Behavior That Hinders

There are several findings in the study that are inconsistent with the team leadership and team effectiveness literature. A negative relationship between the leader skills flexibility and high team performance and satisfaction was found. Communication skills and thinking skills both had a marginally negative relationship with high team performance.

Flexibility. The skills that most differentiated managers of high and low performing groups were flexibility. Contrary to expectations, however, the relationship between leader behavior and team performance and customer satisfaction was negative. This means that managers of low performing teams demonstrate more flexible behavior than managers of high performing teams. Flexibility refers to the leader's ability to respond to unanticipated changes and cope with uncertainty. Taking advantage of opportunities and deviating from an initial strategy in the face of new information are considered important leader skills. Generating options and presenting alternative ideas for team consideration and handling multiple assignments are added competencies regarded important for team leadership. All these skills seem critical for organizations adapting to changing environments and increasing competition. So, why are these skills negatively related to team performance and customer satisfaction?

A discussion with employees and internal organizational development experts offered some explanations for this seeming inconsistency. Team members are technicians who repair office equipment and copy machines. The work is procedurally oriented, held to rigid codes of low tolerances, and precise measurements on machines. Machines are taken apart and put back together systematically and are then expected to run. The technical part of the work is

highly structured, and performed by individuals who value sameness and consistency.

There is also much potential variety with the human element of the work as each customer call is different. The technician initiates customer interactions in a negative environment, i.e., the customer's equipment is not working properly. Repairing the machine usually satisfies the customer and changes this environment. Each customer call is different because of the problem, the human element, and the service issue. As such, the technician expects consistency from their team members, their managers and the organization.

It is likely that managers give high performing teams more autonomy with their work. It is also likely that high performing teams have better problem solving and technical skills, so do not need the manager's intervention or input as much. Does the manager of a high performing team need to demonstrate flexible behaviors?

One possible explanation is that managers of low performing teams more involved in day-to-day operation and monitor the groups' problem solving skills and customer interactions more closely. The coaching behavior: "present alternative ideas to team members" may be an attempt to stimulate team member thinking and resolution of customer issues. It is possible that the manager of a low performing team is focusing on how the work gets done. Task

intervention by managers of low performing teams was also mentioned by other researchers as a negative leader behavior (Wageman, 1996).

The higher flexibility scores could reflect manager frustration with low performance and their attempts to increase performance by using coaching skills and not directive behavior. Perhaps managers of low performing teams are concerned. Their subordinates are not meeting performance outcomes demanded by the organization. The manager is ultimately accountable for the results and is expected to produce the outcomes with non-directive behavior. The self-managing team literature, however, admonishes directive supervisors and offers coaching as a tool for performance improvement. An alternative approach may be considering the organizational context. Wageman (1996) found that the organizational design context was a more significant predictor of high performance. Wageman found that clear direction, tasks and rewards designed for teams and not individuals contributed most to high performance. Thus managers may need organizational design skills as well as coaching skills?

Intuitively, one would expect flexibility to be a necessary leader skill in today's rapidly changing global market place. In this study, flexibility was negatively related to team performance and employee satisfaction. Why? Would the results be the same in an organizational

environment where employees prefer ambiguity and lack of structure? Or does structure help people adapt to rapid change? Would these findings generalize to other organizations where the work is structured differently?

Communication. Communication is a norm in this organization, evidenced by the high scores for all managers. Communication skills consider how clearly the leader presents ideas, and how proficient the leader is in giving constructive feedback, which allows team members to build on their successes and correct any deficits. The leader shares customer and company information and fosters an atmosphere where team members express ideas and opinions freely. High communication leaders are adept at listening and reflecting back what people say to ensure understanding and the feeling of being heard.

One would expect, and the literature indicates, that these skills are important for team effectiveness. Sharing company and customer information has long been considered an important manager role. In fact, managers have been the information conduit in most organizations. So, why was the relationship between communication and performance negative?

One plausible explanation is the possibility high performing teams receive performance data and company MIS information directly from headquarters and not from their manager. It is fairly certain that autonomous high performing teams do not have the same level of interaction

with their manager. Perhaps it doesn't matter where or in what form company and customer information originates? Maybe teams don't need communication and information shared via the human element, i.e., a manager. Could integrated data bases with all customer information and virtual office environments work just as well? If that is true, the proliferation of integrated data bases which permit a free flow of customer information throughout an organization should become essential supportive mechanisms for high performance teams. If the virtual office enhances high performance what should managers be doing? Or does this simply mean low performers need more help interpreting reports and other company information?

These same communication skills, however, were associated with customer satisfaction. When it comes to customers, managers of high performing teams are demonstrating higher communication skills. Does this mean that managers and high performance teams are more likely to express ideas, share information, and give feedback about customers? It is fairly clear that managers and high performing teams do not interact as much. Do these findings suggest managers and high performers communicate about the results that need to be produced rather than how the work gets done?

Thinking. Anticipating problems for the team, identifying problems the teams are avoiding, and solving the team's problems are leader behaviors that reduce employee

satisfaction and have no effect on team performance. These findings are consistent with team effectiveness literature which states that teams are responsible for solving the teams problems. Wageman (1996) and Manz and Sims (1987) also found that manager intervention undermines work satisfaction.

Customer Satisfaction Paradox

Customer satisfaction is one of many team performance measures used by this and many other corporations. In fact, organizational development experts in the company think customer satisfaction is the most important predictor of corporate profitability. Managers were indirectly responsible for customer satisfaction and spent approximately 25% of their time addressing customer issues. Solving customer problems was the focus for the work groups. There were several important findings in the study regarding customer satisfaction and leader behavior. First, there was a significant difference between high and low performing teams on customer satisfaction. Second, the overall relationship between leader behavior and customer satisfaction was positive. If the leader behaviors measured in the study did not relate to customer satisfaction, what is the nature of the relationship? The small sample could have limited further conclusions drawn from the study. What other leader behaviors would directly relate to customer

satisfaction? Should managers interact with customers differently?

Limitations of the Study

A small sample that reduced analytical options was the most pronounced limitation of the study. Another limitation was skewness and non-normality of the sample. Participants were nominated based on the extremes of the distribution which caused these statistical problems. Differences between high and low performing groups were easily identified, which made some aspects of the sample a trade-off.

It seems the Flexibility Scale differentiates high and low performance. An important question for future research is determining if the flexibility scale really measures what I think it measures. Determining the construct validity of the instrument and in particular the Flexibility scale would help answer some of questions that surfaced in the study.

A single firm was used in the study. Generalizing the findings to other organizations would require caution. It would also be interesting to see if the results could be replicated in other organizations.

Implications for Research

The findings in this study resolved some issues about leader behavior and raised additional questions for future research. Previous leadership literature offers insight and suggests some answers. This section explores literature

regarding manager-subordinate interaction, historical leadership constructs structure and initiation, and power-authority issues. In addition, questions about the future of leadership in high performance organizations are discussed.

Manager Subordinate Interaction

That managers intervene more with low performing teams than high performers is not surprising. But what causes managers to intervene more with low performers? Does ultimate accountability for performance outcomes increase manager intervention? Would knowledge of organizational design concepts help managers identify the causes of low performance? Is low performance caused by the manager intervention, lack of team member skills, experience, or motivation? Previous leadership literature offers some potential answers for these questions. Although the ideas have not been tested in team environments.

Leader Member Exchange Theory (Graen & Haga, 1975) found that group members are treated differently, with better assignments, influence, and autonomy given to in-group members. Subordinate performance and positive personal interaction were significant predictors of LMX. The question is, does positive personal interaction influence subordinate performance or does performance precipitate positive personal interaction?

Green and Mitchell (1979) offer Attribution Theory to explain how leaders interact with their subordinates. Leaders interpret employees performance information based on cognitive processes. Attributions are the thought processes we use to determine the cause of our own or, others behavior. The manager will try to change the situation when an external, or environmental attribution is made. However, if an internal attribution is made (trait in the person), managers provide detailed instruction, coach and monitor subordinates more closely, or set easier goals and deadlines.

Educating managers about their attributions and the potential affects on their employees would be invaluable for a couple of reasons. It is possible that internal attributions would set in place a negative downward spiral, i.e., close monitoring of subordinates, more detailed instruction for how to do the work, and setting easier goals and deadlines. With the organizational design context the most significant predictor of performance, shouldn't managers evaluate their environmental attributions and create an appropriate context rather than provide the close supervision?

These findings also support the Multiple Influences Model which emphasized the macro level influences of the situation (Wolford, 1982). The leader increases performance and motivation with incentives, participation, job redesign, and

high expectations. The leader uses diagnostic behavior to assess deficiencies and take corrective action by changing the context, modifying the technology, removing physical constraints and providing resources. Hackman (1992) also indicates manager actions should include diagnosing the organizational context and taking action where necessary. It is possible that focusing manager attention on the environmental context would offset the potential negative downward spiral of close supervision and setting easier goals. In this way managers could ensure problems are solved without undermining the team.

There are fundamental differences between traditionally structured organizations and team based systems. In a team based design, employees are not as dependent on the leader. Years of non-theoretical leadership research found that the more subordinates are dependent on the leader for things they need, the higher will be the relationship between leader consideration and structure and subordinates satisfaction and performance. This relationship was based on subordinate dependency on the leader and the amount the leader can deliver. Team based organizations reduce subordinate dependency on the leader. If this dependency relationship is changed, what else will change as a result? This is obviously a question for further research.

Historical Leadership Constructs: Structure and Consideration

The findings in this study and others indicated that leading teams requires different skills. The measures used in this study revealed some important dimensions. However, identifying the primary team leadership constructs and duplicating decades of leadership research offered more questions and intriguing possibilities.

A factor analysis of the SMT Leader Survey resembled the historical findings in leadership research (Burrell, 1995). Three primary constructs emerged for leading teams: structuring the environment, interpersonal interaction, and decisive behavior. Analyzing data from the current study from this theoretical perspective revealed some interesting findings and important implications.

The one construct marginally significant was decisive behavior exhibited by managers of low performing teams. The decisive factor determines whether the manager "makes decisions for the team," "focuses on one side of an issue," "handles only one assignment well," "or sticks to the original plan when the unexpected occurs." This finding indicates that managers of low performing teams intervene in the team's work activities by making decisions. The question is why? It is possible that low performing teams have inadequate problem solving skills. Or managers could be stuck in a traditional/control paradigm. Providing

managers with sufficient diagnostic skills so they can determine the root cause of low performance is a potential solution.

The other items in the factor suggest inflexibility and deficiency in manager skills. High scores indicate that the manager is unable to handle multiple tasks or look at issues from a multiple perspective and simply sticks to the original plan regardless of new information. Again the question is why? Are managers so pressed for performance results that they are simply trying to keep up and not looking at the big picture and long term consequences?

In addition, there was a relationship between the theoretical construct consideration and employee satisfaction. Consideration includes leader behaviors relevant to listening, interpersonal interaction, and fostering teamwork. These findings are consistent with decades of research stipulating a high positive correlation between consideration and job satisfaction (Yukl, 1989). This research extends these previous findings to team based organizations. A limited sample prohibited conclusions about customer satisfaction and these theoretical dimensions.

Power/Authority. Another important question for research is the power/authority issue in a team based design. Both power and authority are fundamental assumptions with a leadership appointment. Decentralization of authority is a

major part of implementing a team based design. High performance teams are likely to have expert power based on problem solving competence and effective decision making. Control of sanctions and rewards will not rest solely with the leader, if organizations use group rewards and performance management systems. Bass (1985) determined that transforming leadership mobilizes power to change the social system and reform the institution. Power still remains an ambiguous construct in a team based organization and an area for further research.

Implications for Practice

This section integrates the current findings with other research and offers practical suggestions for managers and organizations interested in high performance, employee and customer satisfaction. Included for discussion are macro level organizational design parameters that foster high performance and additional ways that managers can interact with customers. Some new roles and skills for managers are discussed.

Organizational Design

The fact leader behavior accounted for a small percentage of the difference between high and low performance indicates other factors matter more. Wageman (1996) determined that a clear engaging direction was the most important organizational design parameter of high performance. A clear direction should reflect corporate strategy which

directs employee activities. Clear objectives imply knowledge of the organization's key markets, the application of products and services to each market, and customer requirements. Consistent goals and objectives are only possible with cross functional collaboration (Mohrman, Mohrman, & Cohen, 1994). Xerox offers document solutions to customer problems. This strategy presumes long term relationships and indepth understanding of the customer's business.

Manager jobs are influenced by corporate strategy. Understanding the customer's business indicates managers should have broad industry knowledge, understand the opportunities and challenges within each sector, and have knowledge about the productivity drivers for each industry. Thus, scanning the environment and knowing what's going on in the marketplace are increasingly important responsibilities for managers. Getting managers in the marketplace, making external alliances and building the company's business are expanding roles. Creating inter-organizational alliances, joint ventures, and other network arrangements are key future management activities (Miles & Snow, 1994). Entrepreneurial skills that include business development, revenue generation, and investment management will expand. Learning how to negotiate and create "win-win" situations will be critical in ensuring trust and long term alliances and relationships.

For example, in the company studied here, indepth customer relationships are a prerequisite to offering document solutions. Resolution to customer problems are necessary to keep the relationship and help build the customer's business. This implies that managers work in a collaborative cross-functional way with the customer. It also means that developing general manager skills which give a cross functional perspective will be useful in the future. Indepth customer relationships suggest mangers will need the ability to effectively establish inter-organizational trust which supports the Miles & Snow (1994) work. Setting a clear engaging direction is a huge organizational challenge. Would manager teams that share a common performance review process and outcomes help establish this practice?

Companies implementing teams usually start at the bottom of the organization or plant floor level first. Mohrman, Mohrman, & Cohen (1994) suggest changes in corporate systems (i.e., rewards, performance evaluation, information, and communication) are necessary for a successful and sustained team implementation. Wageman (1996) determined that tasks and rewards designed for teams are key enabling conditions and predictors of high performance. Shouldn't designing these corporate systems suitable for high performance teams be a manager obligation? Determining the systems correct for their organizational situation indicates managers need design and diagnostic capabilities. Diagnosing and taking

action regarding the organizational context for each team will likely enhance high performance (Hackman, 1992). Are we giving managers the appropriate skills in leader development programs?

Leader Behavior Assessment

While leader behavior accounted for a small percentage of the difference between high and low performance, knowledge of what that behavior is and its impact on the team is important. Behavioral assessment can establish strengths and developmental opportunities while opening communication between the manager and team. Managers and teams are learning new skills and developmental feedback is a helpful tool.

First, a high score on the Flexibility Scale could indicate a developmental need for managers if the organization is interested in high performance teams, high levels of employee satisfaction, and high levels of customer satisfaction. Determining the exact developmental opportunity necessary would require more indepth investigation. One possible explanation is inadequate strategic thinking and long range planning which puts the organization into a reactive mode. Appropriate customer and market research would help managers determine a consistent strategic direction for the organizations products and services. Presenting customers and employees a relentless focus offers decision parameters and would result in higher

performance and customer satisfaction. Southwest Airlines is a prime example of relentless focus.

Another possibility, if the Flexibility Scale is high, is manager intervention into the day-to-day work activities of subordinates. In this case, holding teams responsible and accountable for work outcomes would change who has the authority and responsibility for the results. The expectation for high performance, and thus higher employee satisfaction, are one potential consequence. Another anticipated sequence would be a change in the future role for managers. If managers are not going to control daily activities what are their responsibilities?

Second, if the organization's primary interest is performance, high Interpersonal Skills are needed. This means that the leader encourages collaboration, resolves conflict, appreciates diversity and values input from everyone. This also means that growth opportunities are made available to everyone in the organization.

Third, if employee satisfaction is a primary interest managers should achieve high Leadership scores. These leadership skills include influencing and encouraging responsibility, accountability and self-management by team members. Such leadership fosters team learning, provides development opportunities, teaches appropriate decision making, and encourages teamwork. The leader gives people the information, knowledge, and skills to make intelligent

decisions and then steps aside. The team solves their own problems and determines how they do their work.

Summary and Conclusions

Even though leader behavior is a less important component of team effectiveness than initially expected, these findings extended our understanding of the leader's role and appropriate behavior in a high performance team environment. Conclusions and tools for today's managers can be drawn from those findings consistent with the team effectiveness literature. First, managers need to move away from managing individuals and concentrate on leading and interacting with the team. The leader should encourage team collaboration, smooth team interchange, and help the team address conflicts. High levels of interpersonal skills are critical when interacting with high performance teams.

Second, leaders should encourage team responsibility, accountability, and monitoring of performance. This is only possible if the team has the knowledge, skills, and authority to make effective decisions. In today's competitive, global environment leaders need high performance teams that are partners in building the business.

Third, leaders that coordinate between teams and establish processes that support the team's work are likely to achieve high performance. Establishing interorganizational alliances that encourage collaboration

are key leader roles. Letting the teams interact directly within these external customer and supplier relationships should encourage high performance and resolution of problems.

Fourth, it is fairly clear that manager intervention in the day-to-day work leads to low team performance and less employee satisfaction. Methods to reduce manager interference with the team's work are more obscure. Educating managers about the differences between their internal and external attributions and the impact of manager subordinate interaction are potential solutions. Managers should set strategic direction, create a vision for the organization, and let the team determine how the work is done. This framework gives the team room to operate within a defined structure and with definite expectations.

Another solution to manager intervention in the work, is encouraging managers to learn and adopt organizational design as an important role. Managers should ensure that teams are necessary to accomplish the work, and that the work is designed for interdependence if teams are necessary. Ensuring that other corporate support systems are designed to support the team is another component of this organizational design role. In addition, teaching managers the diagnostic skills necessary to evaluate the impact of their designs on the team is critical. Reducing manager

intervention in the team's day-to-day activities creates new growth opportunities.

Fifth, the negative relationship between flexibility and high team performance and employee satisfaction in this organization suggests managers need to operate differently. These findings indicate that the team needs to generate options for solving customer problems and identify different ways to accomplish goals. The team should shift priorities to juggle assignments, obligations, and change with the circumstances. The manager should provide a consistent message about direction and expectations and ensure that the team has the requisite knowledge, skills, abilities, and resources to perform.

Sixth, the findings suggest that teams especially need effective problem solving skills and the opportunity to apply this expertise. Solving problems has long been a manager expectation and prerogative. While these leader behaviors do not impact team performance, they certainly reduce employee satisfaction. Teams expect to identify and solve their own problems.

The findings regarding communication and customer satisfaction were inconsistent with team effectiveness literature, thus raise questions for further research. The results imply that high performance teams communicate less with their manager and that the nature of the communication is different than with low performing teams. The type of

communication appropriate for high performance or where the information originates (i.e., manager or data base), however, is not clear. The conclusions also insinuate that managers should communicate differently with customers. The nature of manager-customer interaction is obscure.

Resolving these questions about communication, flexibility, and customer satisfaction are obviously important future directions. The answers can broaden our understanding of the requirements for high performance work systems. Another important question is whether these findings will hold up in other organizations.

These findings do not imply that management is unnecessary. The results do indicate, however, that managers in a team environment have a different role if high performance and employee satisfaction are organizational objectives. Possibilities include building and developing the corporation's business, creating indepth relationships with customers, and establishing alliances and partnerships with other organizations. These new roles will require new manager skills. Developing new skills has the potential to increase manager job satisfaction and augment the manager's value to the corporation.

APPENDIX A
MEASURES

SMT Leader Survey Scales and Items

1. Communication

Encourages open communication among team members.

Listens to team members.

*Keeps information to him/herself.

Gives feedback to team members.

Communicates his/her thoughts clearly.

*Neglects to communicate customer requirements.

2. Thinking

Identifies problems teams are avoiding.

*Solves team problems on his/her own.

Anticipates potential problems for the team.

*Focuses on one side of an issue.

Observes his/her own behaviors.

Attends to non-verbal cues.

3. Administration

Obtains resources for team members.

*Establishes priorities for the team.

Helps team to meet schedule requirements.

Pays attention to detail.

Improves the way the team operates.

*Overlooks opportunities to coordinate activities between teams.

4. Leadership

Develops a climate of teamwork.

*Influences people to follow the rules.

*Makes decisions for the team.

Encourages team members to manage themselves.

Encourages team members to develop new skills.

Encourages team members to monitor their own performance.

5. Interpersonal Skills

Fosters smooth team interaction.

*Addresses interpersonal problems on a one-to-one basis.

Develops a climate of personal growth for team members.

Develop solutions that capitalize on the differences among team members.

*Relies on the most knowledgeable team members for input.

Works through conflicts.

6. Flexibility

Is able to change course to take advantage of opportunities.

Copes with uncertainty.

*Sticks to the original plan when the unexpected occurs.

Is able to present alternative ideas to team members.

*Can handle only one assignment at a time.

Responds to unanticipated changes.

* Indicates negatively scored items.

Immediate Manager Index

- 3a. There is good cooperation between work groups in my department.
9. I understand how my performance on the job is evaluated.
12. My manager communicates effectively.
15. My work gives me a sense of personal accomplishment.
17. I believe I have an opportunity for professional growth and development.
19. I am satisfied with how job openings are filled in my department.
21. There are sufficient opportunities for me to receive training to improve my skills in my current job.
- 23a. I have confidence in the decisions made by my manager.
- 31a. How satisfied are you with these aspects of your current job: your workload?
- 31c. How satisfied are you with these aspects of your current job: recognition for performance?
- 31f. How satisfied are you with these aspects of your current job: being treated with respect and fairness?
32. Taking everything into account, how satisfied are you with Xerox as a place to work?

APPENDIX B
SAMPLE DEMOGRAPHICS

Sample Demographics in Percentages

	Field Managers	Team Members
Age		
<30		6.7
30-39	9.4	34.4
40-49	52.9	37.5
50-59	37.5	20.7
60+	.2	.7
Tenure (Years)		
5	.2	2.0
6-10	1.1	21.5
11-15	9.2	23.8
16-20	19.0	19.2
21-25	36.4	18.7
26-30	23.4	11.8
31-35	10.0	2.9
36-40	.7	.08
Gender		
Female	17.2	6.9
Male	82.8	93.1
Ethnic Group		
Black	19.0	11.0
Asian	1.8	4.2
American Indian	1.3	0.7
Hispanic	6.5	8.7
White	71.4	75.4

APPENDIX C
INFORMED CONSENT

USE OF HUMAN PARTICIPANTS INFORMED CONSENT

Name of participant: _____

1. I hereby consent to participate in the following investigational procedures in this organization: An assessment of leader behaviors, managerial philosophy, and role clarification between managers and work groups.

I have seen and heard a clear explanation of these procedures and understand the sequence of steps, possible appropriate alternative procedures that would be advantageous to this organization, the attendant risks involved and the possibility of any complications that might arise. I have heard a clear explanation and understand the benefits to be expected. I understand that I may withdraw my consent for participation at any time without prejudice or penalty. With my understanding of this, having received this information and satisfactory answers to the questions I have asked, I voluntarily consent to the procedures designated in paragraph 1. above.

_____ SIGNED _____
 Date Person Responsible

APPENDIX D
DESCRIPTIVE STATISTICS
FOR
SMT LEADER SURVEY

Descriptive Statistics for SMT Leader Survey

Items	Mean	SD
Communication		
Encourages open communication among team members	4.44	.75
Listens to team members	4.20	.85
Keeps information to him/herself	3.65	1.37
Gives feedback to team members	4.52	1.25
Communicates his/her thoughts clearly	4.41	1.68
Neglects to communicate customer requirements	4.58	2.13
Thinking Skills		
Identifies problems teams are avoiding	3.99	.82
Solves team problems on his/her own	2.79	1.16
Anticipates potential problems for the team	3.91	1.11
Focuses on one side of an issue	3.75	1.60
Observes his/her own behavior	3.99	1.84
Attends to nonverbal cues	3.63	2.30
Administration		
Obtains resources for team members	4.26	.75
Establishes priorities for the team	1.98	1.03
Helps teams to meet schedule requirements	4.16	1.08
Pays attention to detail	4.16	1.48
Improves the way the team operates	4.11	1.88
Overlooks opportunities to coordinate activities between teams	4.25	2.35
Leadership		
Develops a climate of teamwork	4.15	.77
Encourages team members to manage themselves	4.36	.88
Makes decisions for the team	3.12	1.48
Influences people to follow the rules	1.97	1.65
Encourages team members to develop new skills	4.42	1.90
Encourages team members to monitor their own performance	4.48	2.31
Interpersonal skills		
Fosters smooth team interaction	3.99	.85
Addresses interpersonal problems on a one-to-one basis	1.91	1.04
Develops a climate of personal growth for team members	4.05	1.25
Develops solutions that capitalize on the differences among team members	3.75	1.64
Relies on the most knowledgeable team members for input	2.36	2.18
Works through conflict	4.33	2.39

Flexibility	Mean	SD
Is able to change course to take advantage of opportunity	4.12	.85
Copes with uncertainty	3.98	1.07
Sticks to the original plan when the unexpected occurs	2.88	1.41
Is able to present alternative ideas to team members	4.16	1.65
Can handle only one assignment at a time	4.25	2.14
Responds to unanticipated change	4.27	2.47

APPENDIX E
FACTOR COEFFICIENTS
FOR
SMT LEADER SURVEY

Factor Coefficients of SMT Leader Survey

Item	F1	F2	F3
Structure			
Improve the way the team operates	.88	.17	.26
Encourage team members to develop new skills	.87	.08	.25
Encourage team members to monitor their own performance	.86	.02	.35
Respond to unanticipated changes	.86	.02	.40
Work through conflicts	.86	.08	.38
Observe my own behaviors	.85	.16	.28
Am able to present alternative ideas to team members	.84	.20	.29
Communicate my thoughts clearly	.83	.19	.31
Develop solutions that capitalize on the differences among team members	.83	.16	.24
Pay attention to detail	.80	.17	.24
Attend to nonverbal cues	.80	-.05	.32
Develop a climate of personal growth for team members	.77	.34	.15
Give feedback to team members	.77	.22	.24
Help teams to meet schedule requirements	.76	.33	.06
Anticipate potential problems for the team	.74	.35	.08
Neglect to communicate customer requirements	.69	-.01	.56
Overlook opportunities to coordinate activities between teams	.68	-.06	.57
Cope with uncertainty	.63	.46	.11
Rely on the most knowledgeable team members for input	.57	-.25	.56
Encourage team members to manage themselves	.46	.45	.24
Consideration			
Encourage open communication among team members	-.19	.82	-.04
Foster smooth team interaction	.29	.77	.04
Develop a climate of team work	.29	.75	-.11
Address interpersonal problems on a one-on-one basis	.21	-.72	.20
Identify problems teams are avoiding	.15	.70	-.11
Listen to team members	.25	.69	.26
Am able to change course to take advantage of opportunities	.37	.66	.00
Influence people to follow the rules	.49	-.54	.44
Decisiveness			
Make decisions for the team	.20	-.02	.83
Focus on one side of an issue	.44	.17	.73
Stick to the original plan when the unexpected occurs	.31	-.33	.70
Can handle only one assignment at a time	.60	-.01	.66

Internal Consistency Reliability for the Factors are: F = .98, F2= .52, and F3= .86.

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