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CUSTOMERS AS SUBSTITUTES FOR LEADERSHIP IN SERVICE ORGANIZATIONS:
THEIR ROLE AS NON-LEADER SOURCES OF GUIDANCE AND SUPPORT

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CUSTOMERS AS SUBSTITUTES FOR LEADERSHIP IN SERVICE ORGANIZATIONS: THEIR ROLE AS NON-LEADER SOURCES OF GUIDANCE AND SUPPORT

By

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ABSTRACT

CUSTOMERS AS SUBSTITUTES FOR LEADERSHIP IN SERVICE ORGANIZATIONS: THEIR ROLE AS NON-LEADER SOURCES OF GUIDANCE AND SUPPORT

By

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This study examined the different sources of guidance and support that influence the attitudes and performance of employees in service organizations. The different sources studied were: (1) leaders' instrumental behavior (i.e., telling employees what to do) and supportive behavior (i.e., displaying concern for employees' well-being) and, (2) several possible "substitutes for leadership" (i.e., non-leader characteristics that can act in place of leader behaviors): organizational formalization, professional orientation, and--most centrally--customers.

Customers were said to act as substitutes by displaying instrumental and supportive behaviors and by enriching the characteristics of tasks employees perform. Customers were hypothesized to substitute for leader behaviors' influence upon employee job satisfaction, employee service quality views, the performance of the department in which employees worked, and customer views of the quality of service provided by the department.

Survey data were collected from 525 employees and 2,680 customers of retail, eye-care departments. Also, management provided rankings of department performance.

Results revealed that when employee job satisfaction and employee service quality views were the criteria, both perceived customer and leader behaviors were significant correlates. Thus, customers acted as supplements, rather than as substitutes, for leadership. For department rank, customers did substitute for leadership since employee perceptions of customer behaviors were significant correlates but perceived leader behaviors were not. However, for customer service quality views, employee perceptions of how customers enriched their task characteristics was the only aspect of customer influence to be a significant correlate. Customers as a source of task enrichment was classified as only a supplement since all leader behaviors were also significant correlates. Finally, customer supportive behavior was positively correlated with all four criteria, whereas customer instrumental behavior was negatively correlated with all four criteria.

Organizational formalization acted mainly as a supplement for leadership. Professional orientation was dropped from the analyses due to measurement problems.

It was concluded that customers can be an important source of influence in service organizations. This fact requires attention in the design of service organizations and in future work on leadership and its substitutes.

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CHAPTER I

INTRODUCTION AND REVIEW OF THE LITERATURE

This study examines the different sources of guidance and support that influence the attitudes and performance of employees of service organizations. Based upon the literature describing the processes by which employees are influenced (e.g., theories of role-making and, most centrally, leadership) and the emerging literature on the unique organizational dynamics of service organizations, this research explores the degree to which customers influence the employees of a retail, for-profit, eye-care chain by acting as substitutes for leadership.

The various sources that influence employees in any organization include individuals in positions of hierarchical leadership, as well as various non-leader sources (Kerr and Slocum, 1981). Typically, it has been assumed that of the many possible sources that could influence employees, some form of hierarchical leadership always will be one important source. This assumption, however, has recently been questioned by Kerr (1977; Kerr and Jermier, 1978), who argued that various non-leader sources e.g., coworkers or task characteristics, may replace or "substitute" for leadership--actually making it impossible and unnecessary for leadership to have an effect. This study uses the substitutes for leadership conceptualization as a framework for assessing the

respective strength of various leader and non-leader sources of influence. Central attention is paid to customers as a non-leader source of influence that may act as a substitute for leadership.

That customers might be one of the substitutes for leadership in service organizations is suggested by the developing literature identifying differences in the organizational dynamics of the service sector versus the manufacturing sector (e.g. Mills and Moberg, 1982; Schneider, 1980; Snyder, Cox, Jesse Jr., 1982). One difference, for example, is that a higher percentage of service employees work in boundary roles than do their manufacturing counterparts (Adams, 1976; Parkington and Schneider, 1979). Thus, there is more face to face social interaction between customers and the typical service employee than is true for the average manufacturing employee. Additionally, customers often play an important role in the actual creation of the service offered, e.g., doctors relying upon patients to accurately describe their ailment, bank tellers expecting customers to fill out deposit tickets, etc. (e.g. Eiglier and Langeard, 1977; Fitzsimmons and Sullivan, 1982; Schneider and Bowen, 1983). Customer involvement is most evident in quinary sector (Foote and Hatt, 1953) service organizations--those that attempt to change the service recipient in some way, e.g. health-care and educational organizations.

This emerging literature has not, however, been uniform in specifying the consequences of the customers' involvement, i.e., whether customer involvement contributes to or detracts from positive individual and organizational outcomes. Chase (1978;

1981) for example, believes that the less direct contact the customer has with the service system, the greater the potential of the system to operate at peak efficiency. Using Thompson's (1967) framework, Chase argued that the service organization's core technology should be sealed off from customers. In his view, service systems with high customer contact are more difficult to control and more difficult to rationalize than those with low customer contact. On the other hand, Eiglier and Langeard (1977) concluded that for a service organization to increase performance it should obtain more active participation from its clientele in the production of the service. In sum, recent writers have agreed that customer involvement influences the organizational dynamics of service organizations, but have disagreed about the form, strength, and direction of that influence.

It is, then, from a joint interest in the sources of influence upon employees and the unique dynamics of the service sector that a focus on customers as a substitute for leadership in service organizations emerges. This research assumes there may be various non-leader sources that substitute for leadership and that customer involvement in the service creation process may result in customers acting as a substitute for leadership for the employee. Indeed, it is hypothesized that in service organizations customers may be the most influential of the potential substitutes for leadership, compared to the professional orientation of employees and the degree of organizational formalization. By testing this

hypothesis, this research clarifies both the importance of leadership as a source of influence and the dynamics of organizations within the service sector, now the employer of seventy percent of the U.S. work force (Fitzsimmons and Sullivan, 1982).

Leader and Non-Leader Sources of Influence upon Employees

The work on role-making can provide a theoretical starting point for identifying the different sources of guidance and support that influence the attitudes and performance of employees. As described by Graen:

> . . . the role making system . . . determines behavior in terms of the direction and magnitude of energy expended at a given point in time and the changes in expenditures that occur over time (1976: p. 1202).

The determinants of a role-making system can be classified, at a very general level, into three major categories (Graen, 1976): (1) physical-technological systems--representing the constraints and demands that are imposed by the accepted beliefs about those physical and technological systems, (2) social-cultural systems--representing the constraints and demands that are imposed by the accepted beliefs about the social and cultural systems, and (3) person systems--representing the constraints and demands that are imposed by the accepted beliefs about the person systems that highlight the role for the actor. Theoretically, these three sets of systems should combine to determine the attitudes and

performance of a person in a particular role at a given time (cf. Graen, 1976).

Additional work in role theory specifies further the sources that influence employees in their organizational role. For example, Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) proposed an interpersonal role-making model in which role behavior is a function of occupational identity, intrinsic satisfactions, and the role pressures exerted on the role incombent, i.e., focal person, by other persons, i.e., role set, who have a vested interest in how the organizational role is performed. The employees' immediate supervisor is presented as the role set member with the most influence on employees--particularly during employees' early tenure with the organization.

Another example drawn from the role theory literature that sheds light on the different sources that influence employees is Graen's (1976) interdependent role-systems model. This model, built largely upon the earlier work by Kahn et al. (1964) as well as by Katz and Kahn (1966), focused on how employees' supervisors could influence the work role behaviors chosen by employees in their attempt to conform to competing role pressures. More specifically, Graen detailed how supervisors could influence employee perceptions of the expected utilities of alternative patterns of work behavior using an expectancy theory formulation.

In sum, this brief exposition of the role-making process underscores the wide range of sources that may influence the attitudes and performance of employees. However, the employees'

immediate supervisor is singled out from among the many possible role determinants as frequently being the most influential, or at least as being an important arbiter of competing role demands. As will be clear in the following discussion, the leadership literature has been even more constant in assuming that leadership will always be an important source of influence upon employees.

Leadership Theory: Assumptions, Shortcomings, and Some Recent Approaches

Assumptions. An apparent assumption in all current theories and models of leadership is that some form of hierarchical leadership will always be important in influencing subordinate attitudes or performance (Kerr, 1977; Kerr and Jermier, 1978). As Kerr and Jermier state it, ". . . Even situational approaches to leadership share the assumption that while the style of leadership likely to be effective will vary according to the situation, some leadership style will always be effective regardless of the situation" (1978: p. 375). They review how this assumption can be found, in differing degrees of explicitness, in numerous leadership theories, including the Vertical Dyad Linkage model (Dansereau, Cashman and Graen, 1973; Graen, Dansereau, and Minami, 1972;) the Fiedler Contingency Model (1964, 1967); and most models of decision decentralization (e.g., Bass and Valenzi, 1974; Heller and Yukl, 1969; Tannenbaum and Schmidt; 1958; Vroom and Yetton, 1973).

The Path-Goal Theory (House, 1971; House and Dessler, 1974; House and Mitchell, 1974) is the least explicit in assuming that

some form of hierarchical leadership is always important. It maintains that leader attempts to clarify paths and goals may be unnecessary and redundant in certain situations. However, even in these situations, House and Mitchell (1974) note that, "although such control may increase performance by preventing soldiering or malingering, it will also result in decreased satisfaction." Thus, in no situations are leader behaviors hypothesized by Path-Goal Theory to be irrelevant (Kerr and Jermier, 1978).

In sum, although theories of leadership vary somewhat in their prescriptions regarding the appropriateness of different leadership styles in particular situations, all assume that the effective leader provides some type of guidance and/or positive feeling for subordinates as they carry out their job tasks (Howell and Dorfman, 1981a).

Shortcomings. Despite the assumption of leadership theory that leader behaviors are always important, several researchers have recently noted that leadership variables continue to account for only a small portion of the criterion variance in most empirical studies (Howell and Dorfman, 1981a; Kerr and Jermier, 1978; Osborn and Hunt, 1975). True, strong relationships between the leadership behaviors of supervisors and subordinate outcomes have sometimes been reported. However, "conclusions have had to be based on statistical rather than practical significance, and . . . the researcher's ability to show that the trivially low correlations obtained were not the result of chance" (Kerr and Jermier, 1978:

p. 375).

A related problem in leadership theory and research has been a difficulty in distinguishing leadership effects from other contextual influences occurring simultaneously that may also produce effects. For example, Pfeffer (1977) maintained that leadership has much less of an effect on the variation in organizational outcomes than do external factors such as economic conditions. He maintained that individuals continue, nevertheless, to believe in leadership effects because doing so provides a simple causal framework and justification for the structure of a social collectivity. Thus, he noted, the importance of leadership in a given social context is more an outcome of various social processes--other than leadership--than leadership effects, per se.

Contextual variables have also been considered as both covariates and moderators in leadership research. In a covariate view, both the leader's behavior and the subordinate's outcome measures are greatly influenced by social forces in the work groups, by the broader organizational climate, by the work technology and by the superior-subordinate role expectations in a given work situation (Franklin, 1975; Osborn and Hunt, 1975; Pfeffer and Salancik, 1975; Schriesheim, 1980).

Contextual variables, however, have most frequently been investigated as moderators of the relationship between leader behaviors and subordinate outcomes. As Osborn and Hunt stated:

> Situational variables, such as task structure, do not influence leader behavior but moderate the relationship between

> leadership and criteria. This is essentially the dominant argument implicit in current contingency approaches. . . . Here, situational variables do not predict a criterion or leadership; they only alter the impact of leader behavior (1975: p. 32).

Reviews of the variables that may serve to moderate the relationships between leader behaviors and subordinate outcomes suggest a nearly unlimited list of possibilities e.g. task predictability, subordinate locus of control, the leader's position power, etc., (e.g., Bass, 1981; House and Baetz, 1979; Kerr, Schriesheim, Murphy, and Stogdill, 1974).

In sum, research in leadership does not appear to support the assumption that it will always be an important source in influencing subordinate attitudes and performance. Other sources apparently bear more directly on subordinate outcomes than does leadership or, at a minimum, other sources moderate how leadership influences subordinate outcomes.

Some Recent Approaches. Recently, a number of works in the leadership literature have attempted to come to terms with leadership's failure to be as strongly related to subordinate outcomes as had been typically assumed. A brief review of three of these approaches offers examples of the new directions being pursued in leadership research.

Hunt and Osborn (1982; Hunt, Osborn, and Schuler, 1978; Osborn and Hunt, 1975) have examined the linkages among macro factors, leader behavior, and leader effectiveness. Their work, which was initially presented as a "Reactive-Adaptive Approach" to

leadership and later as their "Multiple Influence Model of Leadership" has demonstrated that environmental and organizational conditions (e.g., task environment complexity and organization size) alone, and in combination with leadership, appear important in affecting both individual performance and satisfaction criteria. Thus, macro variables may influence employee attitudes and performance independent of any leadership effects.

Miner (1975) suggested the more extreme alternative of doing away with the concept of leadership. Instead, he proposed the concept of control as a replacement. Miner discussed four types of control. First, hierarchical control refers to the scaling of authority within the organization; this is where "leadership" would fit, if anywhere. Second, there is professional or ideological control, referring to the values, norms, and ethics of the profession or some outside group. Third, there is the group control exercised within a group of coworkers. Fourth, there is task control. Miner maintained that for task control to be effective there must be present both the "push" of work, e.g., the pace of the assembly line, as well as the "pull" of work, e.g., as provided by job enrichment. Miner concluded that all these types of control are used in organizations, but not with the same frequency.

Tosi (1982) provides a third example of a recent approach that suggests why leadership's importance may have been overstated. Tosi proposed that leadership was only one of seven factors that determine organizational behavior patterns. The seven were: (1)

Organizational formalization, (2) Technology, (3) Socialization, (4) Selection processes, (5) Reward systems, (6) Work relationships, and (7) Leadership--defined as the interpersonal influence of a higher level organizational official. Tosi suggested that a consideration of the sources of influence upon employees should be guided by three considerations: (1) How much variance in behavior patterns is accounted for by each factor?, By all combined?, (2) Do these factors have a simple additive or interactive effect on behavior patterns? and (3) Are there circumstances (and what are they) in which different patterns of these factors would result in the similar level of productivity?

The above approaches all detail sources of influence that may be as important, or more important, than leadership in affecting employees. Although they do question the assumption that leadership will always be an important source of influence, they do not explicitly question the assumption that leadership will always have some influence upon employees regardless of the situation. Thus, the contributions of these three approaches can be thought of as mainly refocusing attention on an issue succinctly stated by Dubin:

> The central analytical problem is this: how to sort out the influences of supervisory behavior from other influences that play upon productivity.
>
> Two general possibilities present themselves. (1) On the assumption that supervision accounts for a fixed and sizeable proportion of the variation in output, comparisons may be made between different kinds of supervision to see which has the higher correlation with productivity. This has been the strategy followed in most studies of supervision. (2) An

> alternative approach is to ask under what circumstances does supervision make more or less difference than do other factors affecting productivity? There may very well be considerable variability in the relative importance of supervision from one organizational setting to another (1965: pp. 54-5).

It is only in the work on "substitutes for leadership" (Kerr, 1977; Kerr and Jermier, 1978) that one finds a third possibility--that there may be settings in which leadership is altogether unimportant and unnecessary.

Substitutes for Leadership

Kerr (1977) described substitutes as characteristics which replace or "act in place of" a leader's behavior that tend to negate the leader's ability to affect subordinate attitudes and performance. Thus, in situations where strong substitutes exist, he argued that the choice of leadership style becomes largely irrelevant. In these terms, the substitutes for leadership model moves beyond simply detailing other variables that may be a source of influence in addition to leadership or that may moderate leadership's influence. Instead, the substitutes for leadership are said to serve as non-leader sources of guidance and support which can, if strong enough, negate a leader's ability to influence subordinates' outcomes (Kerr and Slocum, 1981). The unique contribution of the substitutes concept then, is, the suggestion that it should not be assumed that leadership will always be a source of influence and that the analytical task is to discover to what degree. Rather, situations should be examined based upon the assumption that leadership may not be necessary, depending on the

mix of other non-leader sources of influence present for employees.

Kerr and Jermier (1978) proposed a number of individual, task, and organizational characteristics which they suggested might act as substitutes for leadership. The focal leader behaviors in the typology consist of the two leader behavior styles that dominate the research literature. Table 1 identifies which individual, task or organizational characteristic will tend to negate a leader's supportive or instrumental leader behavior--thus allowing the characteristic, rather than the leader behavior, to affect employees' attitudes and performance.

A brief discussion of some of the characteristics in Table 1 may help clarify both its content, and the nature of the substitutes construct itself. Employees' professional orientation, for example, is presented as a potential substitute for both the leader's supportive and instrumental behaviors. It is considered a potential substitute for leadership because employees with such an orientation typically cultivate horizontal rather than vertical relationships, give greater credence to peer review processes than to hierarchical evaluations and tend to develop important referents external to the employing organization (Filley, House, and Kerr, 1976). Clearly, such attitudes and behaviors can sharply reduce the influence of the hierarchical superior (Kerr and Jermier, 1978).

TABLE 1

POTENTIAL SUBSTITUTES FOR LEADERSHIP
(adapted from Kerr and Jermier, 1978)

Characteristics	May Substitute for the Leader's: Supportive Behaviors	Instrumental Behaviors
Of the Subordinate		
1. Ability, experience, training, knowledge		X
2. Need for independence	X	X
3. Professional orientation	X	X
4. Indifference toward organizational rewards	X	X
Of the Task		
5. Unambiguous and routine		X
6. Methodologically invariant		X
7. Provides its own feedback concerning accomplishment		X
8. Intrinsically satisfying	X	
Of the Organization		
9. Formalization (explicit plans, goals, and areas of responsibility)		X
10. Inflexibility (rigid, unbending rules and procedures)		X
11. Highly-specified and active advisory and staff functions		X

TABLE 1--Continued

Characteristics	May Substitute for the Leader's: Supportive Behaviors	Instrumental Behaviors
Of the Organization		
12. Closely-knit, cohesive work groups	X	X
13. Organizational rewards not within the leader's control	X	X
14. Spatial distance between superior and subordinates	X	X

Organizational formalization is presented in Table 1 as an organizational characteristic that might serve as a substitute for the leader's instrumental behaviors. It refers to the presence of explicit plans, goals, and areas of responsibility. Based on the work of Van de Ven, Delbecq, and Koenig (1976), Kerr and Jermier (1978) proposed that under conditions of low-to-medium task uncertainty and low task interdependence the existence of these written guidelines could serve as substitutes for leader-provided coordination.

Kerr and Jermier (1978) offered illustrative explanations of how several of the remaining characteristics in Table 1 might substitute for the leader's supportive and/or instrumental behaviors. Additionally, they presented fifty-five questionnaire items for the measurement of the fourteen potential substitutes listed in Table 1. Sample items include "My job satisfaction depends to a considerable extent on people in my occupational specialty who are not members of my employing organization," (a Professional Orientation item); "My job responsibilities are clearly specified in writing" (an Organizational Formalization item). Kerr and Jermier (1978) stated the items were written so as to permit a distinction between effects which are the results of leadership and those which stem from substitutes for leadership. In other words, the items were intended to distinguish leader-provided autonomy, goal and role clarity, from autonomy and clarity

which stem from other sources.

Previous Research on Substitutes for Leadership

Only four studies (Kerr and Jermier, 1978; Howell and Dorfman, 1981a, 1981b; Sheridan, Vrdenburgh and Abelson, 1981) have focussed exclusively on the substitutes for leadership construct. These four studies are each summarized in separate tables (See Tables 2 - 5). The following discussion will be organized around issues common to the four separate studies: (1) the dimensions of leadership examined, (2) the varying conceptual and statistical definitions of the substitutes construct as well as the different variables tested as substitutes, (3) the use of attitudes and/or performance as criteria, (4) the choice of data analysis strategies, (5) the degree to which the results support the substitutes construct, and (6) the directions suggested for future research.

The dimensions of leadership examined. Three of the four studies (Howell and Dorfman, 1981a, 1981b; Kerr and Jermier, 1978) measured instrumental and supportive behaviors of the leader using a set of scales designed specifically for use in Path-Goal hypothesis testing (Schriesheim, 1978). The three instrumental leader behaviors that were measured were: (1) Role Clarification--leader behaviors which clarify what is expected of subordinates in their work roles; (2) Work Assignment--leader behaviors which involve the assignment of subordinates to specific tasks; and (3) Specification of Procedures--leader behaviors which specify rules, procedures,

and methods for subordinates to use or follow in the execution of their jobs. It has been shown that these varieties of instrumental leadership are perceived distinctly by subordinates, and that they differentially relate to different kinds of criteria (Schriesheim and Bish, 1974; Schriesheim, 1978). Lastly, supportive leader behavior was assessed by items indicating warmth, friendship, trust, and concern for the subordinates' personal welfare.

In Sheridan et al. (1981), seven dimensions of leader behavior were assessed (See Table 5) based on instruments developed by Kruse and Stogdill (1973) and Sims (1977). In sum, the studies of the substitute construct have looked primarily at the two most commonly studied dimensions of leadership, instrumental and support.

The different treatments of the substitutes construct. Substitutes were conceptualized by Kerr and Jermier (1978) as characteristics which render leadership not only impossible, but also unnecessary, as a source of influence upon employee attitudes or performance. Kerr and Jermier stated that substitutes may be correlated with both predictors and the criterion, but tend to improve the validity coefficient when included in the predictor set. That is, they will not only tend to affect which leader behaviors (if any) are influential, but will also tend to impact upon the criterion variable.

Substitutes were defined more broadly or liberally in the Howell and Dorfman (1981a, b) studies:

> Leadership substitutes replace or 'act in place of' a specific leader behavior. They also may act as moderator or suppressor variables by influencing the relationship between leader behavior and subordinate attitudes and/or performance. However, by acting in place of a specific leader behavior, substitutes can play a much more important role than simply as a moderator variable (1981a: p. 715; emphasis added).

In the Howell and Dorfman definition, then, a substitute does not necessarily have to actually "act in place of" a leader behavior. Instead, it need only influence the relationship between leadership and the attitudes or performance of employees. Nevertheless, the definition used by Howell and Dorfman is still very similar to Kerr and Jermier's. In both cases, substitutes are described as playing their most important role when they do, indeed, act in place of leadership.

In Sheridan et al. (1981) an additional twist was added to the original Kerr and Jermier definition of a substitute. Specifically, Sheridan et al. maintained that substitutes may also affect the frequency with which a leader demonstrates certain behaviors:

> . . . substitute variables are posited to directly affect the subordinate's attitudes and behavior and indirectly affect them by influencing the frequency that the leader demonstrates specific leadership activities. For example, it has been suggested that the design of highly structured tasks for subordinates would tend to reduce the leader's task direction (Barrow, 1976; Lord, 1976) which in turn should have a positive motivational effect on those subordinates (House, 1971). Thus, the structure of work tasks can have both direct and indirect effects on the subordinate's job performance (pp. 3-4).

This definition is like the others in claiming that substitute variables may directly affect subordinate outcomes, i.e. substitute variables may take the place of leadership. However, its

description of the indirect effects of substitutes is unique for the following reason: it claims that substitutes may influence the frequency that certain leader behaviors are displayed, rather than their just negating the influence of leader behaviors regardless of how often they are displayed.

In sum, the conceptual and statistical definitions of the substitutes construct vary across the four studies. However, the definitions are consistent in saying that substitutes may directly affect subordinate outcomes. Indeed, substitutes were generally said to play their most important role when they take leadership's place as a source of influence upon employee attitudes and performance. In addition to that role, substitutes were said to moderate the influence of leadership (Howell and Dorfman, 1981a; 1981b) and to affect the frequency with which leader behaviors are demonstrated (Sheridan et al., 1981).

Turning to the substitute variables themselves, three of the four studies (Howell and Dorfman, 1981a, 1981b; Kerr and Jermier, 1978) focussed on the characteristics listed in Table 1. The actual individual, task, or organizational characteristic assessed in each study are indicated in Tables 2-4. The substitutes in the Howell and Dorman studies were measured using modified forms of the scales developed and used by Kerr and Jermier (1978). In the Sheridan et al. (1981) substitutes were tested in addition to those identified in Table 1. For example, locus of control, nursing technology, and unit structure were tested as

potential substitutes. The Kerr and Jermier (1978) scales were not used in Sheridan et al. Instead, they used measures previously established in other research [e.g. Job Design was measured using an instrument adapted from Hackman and Oldham (1976)].

In sum, research on variables that may act as substitutes for leadership has been largely limited to the individual, task, and organizational characteristics originally identified by Kerr and Jermier (1978). However, some new variables and measurement approaches appeared in the recent study by Sheridan et al. (1981).

The use of employee attitudes and/or performance as criteria. Employee attitudes were the sole criteria used in the studies by Kerr and Jermier (1978) and Howell and Dorfman (1981a, 1981b). Specifically, Kerr and Jermier used organizational commitment and role ambiguity. Both Howell and Dorfman studies used organizational commitment and general job satisfaction. Only the Sheridan et al. study used employee job performance in addition to the employee attitude criterion, job tension. The result for employee attitudes ($R^2 = .327$; $p < .01$) was much stronger than for employee job performance ($R^2 = .133$; $p < .01$).

The choice of data analysis strategies. Although each study shared a common interest in identifying substitutes for leadership, they used very different analysis strategies for classifying variables as a substitute. The different strategies are described in detail in order to provide a context for viewing the analysis strategy used in the present research.

Kerr and Jermier analyzed their data by entering all leader behaviors and potential substitutes (see Table 2) into a regression equation simultaneously. They then examined the simple correlations and beta weights of this full model as a basis for selecting some leader behaviors and substitutes for inclusion in a more parsimonious predictor set. Then a reduced model was tested using the selected predictors. The multiple R and beta weights of the reduced model were then compared to those in the full model.

Howell and Dorfman's data analysis strategy in both their studies was developed as ". . . a logical strategy to assess the degree of substitutability of a particular individual, task, or organizational characteristic for a specific leader behavior" (1981a: p. 718). They noted this assessment is not possible when all leader behaviors and possible substitutes are simultaneously included in a single multiple regression model, as was done in Kerr and Jermier (1978). Instead, Howell and Dorfman proposed an analytic procedure that is stepwise in nature, involving a series of increasingly rigorous tests (i.e., differing hierarchical regression equations) which result in classifying a particular individual, task, or organizational characteristic as a nonsubstitute, weak substitute, strong substitute, or a very strong substitute.

There were four steps in the Howell and Dorfman analysis: (1) there must be a logical explanation of how a variable could possibly take the place of a specific leader behavior and therefore

make the leader behavior unnecessary; (2) relationships are examined to see if a specific leader behavior is even important in terms of its predictive power over a given criterion. Two analytic strategies are used: (a) if the bivariate correlation between the leader behavior and the criterion is significant, it is considered to be a relevant leader behavior; (b) in a second, less stringent, analysis a subgroup moderator analysis is conducted. Here, the sample is dichotomized based on a median separation on the substitute being studied. Both bivariate correlation and multiple regression analysis is conducted on the resulting subgroups. If the leader behavior produces either a correlation coefficient or a regression coefficient which is significant in the "low" substitute subgroup, then it is considered to be potentially relevant.

The next step (3) is to determine if the potential substitute is significantly correlated with the criterion. If this bivariate correlation is not significant, then the variable is not even a potential substitute (and is therefore classified a nonsubstitute). If this bivariate correlation is significant, then a multiple linear regression equation strategy is followed, where the general form of the equation is:

$$\text{Criterion} = b_{PS}\, y_{PS} + b_{LB}\, y_{LB} + b_{PSLB}\, y_{PS}\, y_{LB} + K,$$

where PS = potential substitute; LB = leader behavior.

The potential substitute is entered first in a stepwise hierarchical regression procedure and is "forced" to remain in the predictor set. The leader behavior, on the other hand, is allowed to drop out if it does not add significantly to the explained

criterion variance. Thus, the leadership variable always is entered after the potential substitute to determine if the significant substitute effect can make the significant leadership effect impossible and unnecessary.

The following steps complete the analysis: if b_{PS} is not significant, then y_{PS} is a nonsubstitute. If b_{PS} is significant, then y_{PS} is a substitute of some form.

If b_{LB} is significant, then y_{PS} is a weak substitute. If b_{LB} is not significant, then y_{PS} is either a strong or very strong substitute.

If b_{PSLB} is significant, then y_{PS} is a strong substitute. If b_{PSLB} is insignificant, then y_{PS} is a very strong substitute.

In sum, the Howell and Dorfman strategy represented a more sophisticated method for analyzing the hypothesized relationships among the leader and non-leader sources that Kerr and Jermier (1978) presented in Table 1. Specifically, they developed a strategy to assess the degree of substitutability of a particular individual, task, or organizational characteristic (or set of characteristics) for a specific leader behavior.

Finally, the data analysis strategy used by Sheridan et al. (1981) assessed the direct and indirect effects of substitutes (as they were defined by them above), as well as the effect of formal leadership. In their analysis, all of the substitutes and leader behaviors were entered in the regression equation simultaneously.

Actually, two regression equations were tested:

(1) Outcome = f (Substitutes)

(2) Outcome = f (Substitutes + Leadership)

From these two regression equations, the total effects of the substitute variables were decomposed into their direct and indirect effects, where indirect effects were estimated from the difference in path coefficients for the two equations.

Again, indirect effects involved the substitutes affecting the frequency with which a leader behavior was displayed. In turn, this was said to affect employee attitudes or performance.

In sum, these three different approaches underscore that there has been no one analysis strategy followed in the research on substitutes for leadership. Instead, each researcher used an analysis strategy customized to a particular conceptual and statistical definition of the substitutes construct.

The degree to which the results support the substitutes construct. Although the limited amount of work on the substitutes construct makes it difficult to state firm conclusions about what characteristics most act as substitutes, the following summary points can be offered: (1) Organizational formalization is an organizational characteristic that consistently substituted, to some degree, for instrumental leadership. In Kerr and Jermier (1978), it was a substitute when role ambiguity was the criterion. In Howell and Dorfman (1981a; 1981b), organizational formalization showed varying degrees of substitutability for all three

instrumental leader behaviors across two criteria, organizational commitment and general job satisfaction. In Howell and Dorfman (1981a), organizational formalization was a very strong substitute for the work assignment dimension of instrumental leadership. In Howell and Dorfman (1981b), organizational formalization was a strong substitute for the specification of procedures dimension of instrumental leadership. Organizational formalization appears, then, to be a characteristic that may substitute for aspects of instrumental leadership in a variety of organizational settings.

Task characteristics provided some degree of a substitute effect in all four studies. In Kerr and Jermier (1978), intrinsically satisfying tasks was the most consistent substitute. Intrinsically satisfying tasks and task routinization were found to be consistent, but weak substitutes in Howell and Dorfman (1981a, 1981b). In Sheridan et al. (1981) the characteristic termed job design had both direct and indirect substitute effects when employee job tension was the criterion. In sum, task characteristics consistently had a substitute effect but generally the magnitude of that effect was less than that of organizational formalization.

The characteristics of the individual that have been tested have generally not acted as substitutes. In Kerr and Jermier (1978), none of the characteristics of the individual (ability, experience, training, and knowledge; professional orientation; need for independence) included in the full regression equation remained in the reduced equation of significant substitutes and leader

behaviors. Similarly, professional orientation and ability, experience, etc. did not act as substitutes in Howell and Dorfman (1981a; 1981b). Only in Sheridan et al. (1981) did the "professionalism" of employees have a substitute effect. However, in this study professional orientation, per se, was not measured, but rather professional commitment. Sheridan et al. defined professional commitment as representing the nurse's behavioral intention to continue employment in the nursing profession. This measures something quite different from whether professionalism or a professional orientation is a characteristic of the employee.

The lack of empirical support for professional orientation as a substitute is certainly inconsistent with the strong theoretical case made for its substitute potential by Kerr (1977; Kerr and Jermier, 1978). Indeed, a professional orientation was one of the key characteristics that led Kerr (1977) to believe that there were non-leader sources of guidance and support that could make formal leadership redundant. Additionally, Howell and Dorfman (1981a) conceded their suprise that a professional orientation did not act as a substitute in their study, given the sample consisted of employees of a community hospital that included nurses, etc. Howell and Dorfman attempted to explain this result by noting the oftentimes bureaucratic (mechanistic) nature of hospital organizations (Georgopoulos, 1975) which may have increased the relative importance of the leader behaviors and decreased the importance of potential substitutes. In this vein, Kerr and Slocum

(1981), in a recent theoretical paper on controlling employee performance, hypothesized that substitutes will operate most strongly in organic organizations. In any event, Howell and Dorfman urged additional work with samples that include professional employees in order to clarify the conditions under which certain substitutes, including a professional orientation, are most important.

Suggested directions for future research on the substitutes construct. Kerr and Jermier (1978) recommended that future work on substitutes for leadership should distinguish between "substitutes" and "neutralizers". Neutralizers, they claimed, are characteristics which make it effectively impossible for leadership to make a difference. In contrast, they defined substitutes as characteristics which render leadership not only impossible, but also unnecessary. Neutralizers and substitutes are similar in that both act to reduce the impact of leader behaviors upon subordinate attitudes and performance. They differ, however, in that:

> Substitutes do, but neutralizers do not, provide a 'person or thing acting or used in place of' the formal leader's negated influence. The effect of neutralizers is therefore to create an 'influence vacuum,' from which a variety of dysfunctions may emerge (Kerr and Jermier, 1978: p. 395).

With respect to their typology of characteristics, they note that whereas all fourteen characteristics may clearly be termed neutralizers, it is not clear all fourteen are substitutes.

Kerr and Jermier (1978) also drew a statistical distinction between neutralizers and substitutes. Neutralizers were said to be

a type of moderator variable when uncorrelated with both predictors and the criterion, and act as a suppressor variable when correlated with predictors but not the criterion. Alternatively, Kerr and Jermier stated that substitutes may be correlated with both predictors and the criterion, but tend to improve the validity coefficient when included in the predictor set.

The need for future researchers to distinguish between substitutes and neutralizers was also mentioned by Howell and Dorfman (1981a). However, they--like Kerr and Jermier (1978)--chose not to try, themselves, to differentiate between the two in their own analyses. Actually Howell and Dorfman complicated the task of distinguishing between the two by defining substitutes in terms that also included the Kerr and Jermier definition of a neutralizer. That is, the Howell and Dorfman description of the substitutes role included the possibility that substitutes may also act as moderator or suppressor variables. This role is the one Kerr and Jermier said was the basis for labelling a characteristic a neutralizer.

Sheridan et al. (1981) was the only study of the four that attempted to distinguish between substitutes and neutralizers in its data analysis. Sheridan et al. stated that neutralizer variables tend to moderate the relationship between leader behaviors and subordinate outcomes, but do not directly influence the leader's behavior. Additionally, they posited that neutralizers may directly affect subordinate outcomes. The data analysis test for this neutralizer's role is shown by adding the

neutralizer variable to the regression equation from Sheridan et al. presented earlier:

Outcome = f(Substitutes + Leadership + Neutralizer + Neutralizer x Leadership)

This equation, then, tests for the various influence effects hypothesized by Sheridan et al.: a direct leadership effect, direct and indirect substitute effects, and direct and moderating neutralizer effects. They found that administrative climate (See Table 5) had a neutralizer effect when job performance was the criterion, but not when job tension was the criterion.

To summarize how neutralizers have been discussed, it can be said that each of the four studies described neutralizers differently. Furthermore, three out of four studies did not attempt to distinguish between neutralizers and substitutes in analyzing the data. This indicates that there is lack of agreement about how substitutes and neutralizers are conceptually different, as well as lack of confidence that any conceptual difference can be readily identified in the data analysis.

In addition to the possible existence of substitutes and neutralizers, Howell and Dorfman (1981a; 1981b) suggested that certain characteristics may act as "supplements" to leadership. Specifically, they claimed that the leader's behavior and one or more of the potential substitutes may at times coexist--"filling in for one another as the situation dictates" (p. 728). In these instances, Howell and Dorfman concluded that the individual, task,

or organizational characteristics might best be termed "supplements" to leadership. This conclusion fits with a recent definition of substitutes offered by Kerr and Slocum (1981) that described them as sources of information about tasks and the motivation to perform tasks which can supplement--or, if strong enough, negate--a leader's ability to influence subordinates' outcomes (emphasis added).

Finally, an additional elaboration of the substitutes construct suggested by Kerr and Jermier (1978) would be to specify other leader behaviors and other characteristics which may act as substitutes for leader behavior. Progress on specifying other leader behaviors was made in Sheridan et al. (1981). Recall that their study consisted of seven dimensions of leader behavior, rather than the customary two-dimensional view of leadership.

Specifying other characteristics that may act as substitutes could proceed in two directons, as implied in Kerr and Jermier (1978) and Kerr and Slocum (1981). First, Kerr and Jermier (1978) emphasized that their list of characteristics of the individual, task, and organization was only representative--that other characteristics could be identified within each of these three categories. Secondly, Kerr and Slocum (1981) noted that Kerr's previous work on substitutes was limited to sources of influence upon employees that were internal to the organization. They noted that other sources might be identified if one assumed a more open-systems model or external control of organizations perspective. In sum, these works suggested that

additional characteristics could be found either by looking more closely within the organization or by starting to look outside of the organization.

A Summary View of Leader and Non-Leader Sources of Influence upon Employees

This section presented an overview of the different leader and non-leader sources of guidance and support that influence the attitudes and performance of employees. The role-making literature presented as an introduction identified numerous sources that influence employees in a particular role at a given time, principal among these being supervision--or leadership. Then it was shown that all conventional theories of leadership have assumed that some form of hierarchical leadership will always be important in influencing subordinate attitudes and performance. However, against a backdrop of weak results linking leadership and subordinate outcomes, recent works in leadership have begun detailing the numerous influence sources other than leadership. These works (e.g., Miner, 1975; Osborn and Hunt, 1982; Tosi, 1982) question leadership's importance, but do not deny that it will be a source of influence, to some degree.

The substitutes for leadership concept, on the other hand, maintains that there may be situations in which formal leadership is both impossible and unnecessary. Borrowing from Kerr and Jermier (1978) and Howell and Dorfman (1981a, 1981b) substitutes for leadership can be defined as non-leader characteristics that may, when strong enough, replace the influence of leader behavior

upon subordinate outcomes; when less strong, non-leader characteristics coexist with leadership as a source of influence and can be termed supplements to leadership.

A few studies have explored different characteristics of the individual, task, and organization that may substitute for leadership's impact on subordinate outcomes. The results have indicated that intrinsically satisfying tasks and organizational formalization may substitute for either the leader's supportive or instrumental behaviors. A professional orientation, however, does not appear to be a substitute--despite the strong theoretical case to the contrary. The results from these few studies have provided only mixed support for the different substitutes suggested by Kerr and Jermier (1978). However, the value of the substitutes concept to the present research lies in its providing an explicit conceptual and analytical scheme for assessing the different sources that influence employees, without taking for granted leadership's influence.

TABLE 2

THE KERR AND JERMIER (1978) STUDY

Leader Behaviors	Substitutes Tested	Criteria	Results
Supportive Instrumental: Role Clarification Work Assignment Specification of Procedures (Schriesheim, 1978)	Of the Individual Ability training, knowledge Professional orientation Need for independence Of the Task: Routinization Feedback Intrinsically satisfying Of the Organization: Formalization Inflexibility Advice from staff Closely knit work groups	Organizational commitment Porter et al. (1974) Role ambiguity Rizzo et al. (1970)	For organizational commitment Reduced model's beta weights Task feedback .19* Intrinsically satisfying .45** Role clarification .22** R = .63** For role ambiguity Reduced model's beta weights Routinization -.29** Intrinsically satisfying -.25** Formalization -.30** Role clarification -.35** R = .75**

*p < .05
**p < .01

TABLE 3

THE HOWELL AND DORFMAN (1981a) STUDY

Leader Behaviors	Substitutes Tested	Criteria	Results
Supportive (SUP) Instrumental: Role Clarification (RCL) Work Assignmnt (WA) Specification of Procedures (SPEC) (Schriesheim, 1978)	Of the Individual: Professional orientation (for SUP, RCL) Ability, experience, etc. (for RCL) Of the Task: Intrinsically satisfying (for SUP) Routinization of tasks (for WA, SPEC) Task feedback (for SUP) Of the Organization Closely knit work groups (for SUP, RCL) Organizational formalization (for RCL, WA, SPEC)	Organizational commitment Porter and Smith (1970) General job satisfaction Weiss et al. (1967)	For organizational commitment Weak substitutes for SUP Intrinsically satisfying Closely knit work groups Weak substitutes for RCL Routinized tasks Closely knit work groups Weak substitutes for SPEC Routinized tasks Org formalization Weak substitute for WA Routinized tasks Very strong substitute for WA Org formalization

TABLE 3--Continued

Leader Behaviors	Substitutes Tested	Criteria	Results
			For general job satisfaction Weak substitutes for SUP Intrinsically satisfying Task feedback Weak substitue for RCL Org formalization

TABLE 4

THE HOWELL AND DORFMAN (1981b) STUDY

Leader Behaviors	Substitutes Tested	Criteria	Results (abstracted)
Supportive (SUP) Instrumental: Role Clarification (RCL) Work Assignment (WA) Specification of Procedures (SPEC) (Schriesheim, 1978)	For Professional Employees Of the Individual Importance placed on org rewards (for SUP) Ability, experience, etc (for RCL, SPEC) Of the Task: Intrinsically satisfying (for SUP) Task feedback (for RCL, SPEC)	Organizational commitment Porter and Smith (1970) General job satisfaction Weiss et al. (1967)	For organizational commitment For both professionals and nonprofessionals Weak substitute for SUP Intrinsically satisfying Strong substitute for SPEC Org formalization For nonprofessionals, only Strong substitutes for SPEC Ability, experience, etc. Routinized tasks Closely knit work groups

TABLE 4—Continued

Leader Behaviors	Substitutes Tested	Criteria	Results (abstracted)
	For nonprofessional employees		For general job satisfaction
	Of the Individual: Importance placed on org rewards (for SUP)		For both professionals and nonprofessionals Weak substitute for SUP Intrinsically satisfying
	Of the Task: Routinized tasks (for RCL, WA, SPEC)		For professionals, only Weak substitute for RCL Org formalization
	Of the Organization: Closely knit work groups (For SUP, RCL, WA, SPEC) Org formalization (for RCL, WA, SPEC)		For nonprofessionals, only Org formalization was a weak substitute for RCL and a strong substitute for WA

TABLE 5

THE SHERIDAN VRDENBURGH, AND ABELSON (NOTE 1) STUDY

Leader Behaviors	Substitutes Tested	Criteria	Results
Seven behavior dimensions Allocation Assertiveness Delegation Recognition Reprimand Sensitivity Liaison Adapted from Kruse and Stogdill (1973) and Sims (1977)	Formal education Job experience Professional commitment Locus of control Nursing technology Unit Structure Job design Group cohesion As a neutralizer: Administrative climate	Job tension Kahn et al. (1964) Job performance Five dimensions measured by BARS	For job tension Substitutes with direct effects, only Formal education (+) Job experience (-) Locus of control (+) Substitutes with direct and indirect effects Professional commitment (-) Group cohesion (-) Job design (-) Leader behaviors with an effect Recognition (-) Delegation (-) Administrative climate did not have a neutralizer effect R^2 = .327**

TABLE 5—Continued

Leader Behaviors	Substitutes Tested	Criteria	Results
			For job performance Substitutes with direct effects, only Job experience (+) Substitutes with direct and indirect effects Group cohesion (+) Nursing technology (-) Leader behaviors with an effect Assertiveness (+/-) Administrative climate did have a neutralizer effect R^2 = .133**

Organizational Behavior in the Service Sector

The preceding discussion dealt with sources that could be expected to influence the employees of all organizations. Similarly, the characteristics suggested as potential substitutes by Kerr and Jermier (1978) were purposefully developed at a level of abstraction to be applicable to all organization (Jermier, personal communication). The interest in the present research, however, is service organizations and, more specifically, how customers can act as substitutes for leadership in them. Therefore, the organizational dynamics that set the service sector apart from the manufacturing sector are now examined. These differences suggest the likelihood that in service organizations customers may influence employees by acting as a substitute for leadership.

The Boundaries of the Service Sector

The range and number of organizations that can be considered to be service organizations is large enough that it is useful to briefly mention efforts to categorize them. The service sector is often referred to as the tertiary sector, based on Clark's (1957) three-fold division of the economy. Here, the primary sector was principally agriculture; the secondary, manufacturing or industrial; and then the tertiary, services.

The services sector was subdivided more finely by Foote and Hatt (1953). Their categories/stages of economic activity appear in Table 6. The service sector is said to be composed of three

TABLE 6

STAGES OF ECONOMIC ACTIVITY
(adapted from Foote and Hatt, 1953)

Primary (Extractive):	Quartenary (Trade and commerce):*
Agriculture	Transportation
Mining	Retailing
Fishing	Communications
Forestry	Finance and insurance
	Real estate
Secondary (Goods-producing):	Government
Manufacturing	
Processing	Quinary (Refining and extending human capacities):*
Tertiary (Domestic services):*	Health
Restaurants and hotels	Education
Barber and beauty shops	Research
Laundry and dry cleaning	Recreation
Maintenance and repair	Arts

*Services

categories: domestic services; trade and commerce; and refining and extending human capacities. According to Foote and Hatt (1953) and Gersuny and Rosengren (1973), tertiary and quartenary services are intended to maintain the recipient "as is," whereas quinary services are designed to change and improve the recipient in some way.

The service organization in this study is a retail eye-care chain. Consequently, it can be considered as offering both quartenary and quinary services. That is, it is a for-profit retail organization (quartenary) that attempts to improve the eye care of its customers (quinary). As mentioned in the introduction, it is when quinary services are offered that customer involvement with employees is most pronounced.

The Unique Organizational Dynamics of the Service Sector

There has been a tendency in the literature on organizations to focus nearly exclusively on the nature of manufacturing organizations and to assume that the principles that have emerged from studying those organizations fully capture the dynamics of all organizations (Miller and Rice, 1967; Shamir, 1978). However, analogies between services and manufacturing (e.g., a hospital is like a job shop) can be superficial and misleading because they tend to ignore the unique people-processing and people-changing nature of many services (c.f. Fitzsimmons and Sullivan, 1982). Similarly, Chase (1981) has emphasized that it is inappropriate to matter of factly apply operations manangement

principles used in manufacturing systems to service organizations.

A number of recent works have helped reverse this tendency to overgeneralize across organizations by identifying the ways in which service organizations are unique (e.g., Chase, 1978; Eiglier and Langeard, 1977; Fitzsimmons and Sullivan, 1982; Gersuny and Rosengren, 1973; Schneider, 1980; Schneider and Bowen, 1983; and Shostack, 1977a, 1977b). Although these works differ in important ways, they essentially agree upon three fundamental ways in which service organizations differ from manufacturing organizations. These three differences underscore that the social interaction between employees and customers is more complex in service organizations than is true in manufacturing organizations. That is, the opportunity for mutual interpersonal influence between employees and customers is pronounced in service organizations.

(1) The Intangibility of Services. Whereas the output of manufacturing organizations are tangible goods that exist in time and space, services consist solely of intangible acts or processes that exist in time only (Shostack, 1981). Bateson (1977) maintains that services are "doubly intangible," that they are characterized by "palpable" intangibility and "mental" intangibility. The former refers to the fact that services cannot be touched, the latter refers to the customer's difficulty in envisioning what has been obtained when receiving a service, e.g., what does the customer purchase when buying insurance?

Since services are intangible their true "reality" can only

be defined experientially. The lack of a concrete basis upon which to define services results in service employees often being evaluated as attributes of the service itself (Lovelock, 1981; Shostack, 1977b). Furthermore, more than one version of reality may be found in a service market. That is, the reality of a service is in the eye of the beholder, i.e., the customer (Shostack, 1977b), or in other words, the reality of a service is what the customer claims it to be.

(2) Customer Participation in the Production of Services. In service organizations, the customer plays a key role in the division of labor involved in the creation of many services (cf. Gersuny and Rosengren, 1973). This stands in marked contrast to manufacturing organizations, where the customer has little or no actual involvement in the production process. However, in many service organizations employee productivity is in part dependent upon the knowledge, experience, motivation, behavior, and cooperation of the customer (e.g., Gersuny and Rosengren, 1973; Lovelock, 1981). For example, the reliability of a doctor's diagnosis may depend upon the patients' ability and willingness to describe their illness. As mentioned, customer participation is most pronounced in service organizations comprising the quinary sector--those organizations that attempt to change or improve the customer. In these service organizations at least some measure of cooperation by customers is a prerequisite for the implementation of decisions about their problems (Danet, 1981).

(3) The Simultaneous Production and Consumption of Services. In manufacturing organizations there is typically a delay between the production of a good and its consumption by a customer. In service organizations, however, the provision and receipt of a service takes place nearly simultaneously. In other words, whereas the production, distribution, and sale of a product can be uncoupled, this is not possible with services (Thomas, 1978). Again, services are more experienced at a given point in time than they are exchanged and possessed. Thus, the typical service employee is more exposed to the customers outside the organization than their manufacturing counterparts. Indeed, as noted in the introduction, service employees often occupy boundary roles and have frequent and salient face-to-face exchanges with customers (Adams, 1976).

These three characteristics (the intangibility of services, customer participation in the production of services, and the simultaneous production and consumption of services) set service organizations apart from manufacturing organizations. These characteristics illustrate that the social interaction between buyer and seller is much more elaborate in the production of services than with material goods. In other words, the economic market and division of labor is more clean for manufacturing organizations that it is for service organizations (c.f. Gersuny and Rosengren, 1973). In service organizations, customers and employees interact and "work together" in the production of service and the definition of its reality.

It is not clear, however, how this extensive social interaction between customer and employee influences individual and organizational outcomes. Parsons maintained that a view in which clients play a role in the organization recognizes ". . . the possibility and/or necessity of client contribution to the solidarity of the service system" (1970: p. 9; emphasis added). On the other hand, Gersuny and Rosengren (1973) concluded that customer participation in the production process is a possible source of both "new vistas of organic solidarity" and "a growing arena of conflict." Conflict between employee and customer was seen as stemming from disagreement over the terms upon which cooperation is to take place--not unlike the conflict between employer and employee, in general (Gersuny and Rosengren, 1973). In sum, research is needed to specify further the consequences arising from the interactions that take place between the customers and employees of service organizations.

Customers as Substitutes for Leadership in Service Organizations

The substitutes for leadership concept provides a useful framework for examining the influence that customers may exercise within service organizations. That is, customers may serve as a source of support and guidance for employees by acting in place of the instrumental and supportive behaviors of those in positions of hierarchical leadership--a possibility clearly suggested by the above description of the interaction between employees and customers in the service sector.

Customers were not suggested as potential substitutes for leadership in the Kerr and Jermier (1978) typology. That the Kerr and Jermier (1978) typology was intentionally limited to internal characteristics of the organization made it unlikely that customers would be considered as a potential substitute for leadership. However, when the conceptual domain of the substitutes construct is extended "outside of" the organization, a host of new potential substitutes can be considered. One can think of adding to the three category typology of Kerr and Jermier (1978) a fourth category of extra-organizational characteristics. Examples could include suppliers, other organizations, state and federal laws and--of course--customers, all of which may act as substitutes for leadership. These characteristics, although primarily outside the organization, nevertheless can be expected to influence the attitudes and performance of employees inside the organization.

The consideration of customers as an external characteristic, rather than internal, is at least arguable because it depends on the larger unresolved question in organizational theory as to how one defines the boundary of the organization (e.g., Starbuck, 1976). As Starbuck noted, the problem lies in determining what measures or decision rules are to be used in deciding who or what belongs in or out of the organization.

There are several decision rules to choose from in the literature for locating the customer as inside or outside the organization boundary. This research accepts Aldrich's (1979) notion that it is an organization's ability to control an

individual's organizational entry and exit that determines whether an individual should be viewed as essentially inside or outside the organizational boundary. Similarly, Pfeffer and Salancik (1978) have argued that the organization ends and the environment begins at that point where the organization's control over activities diminishes and the control of other organizations or individuals begins.

Control over individuals' movements (Aldrich; Pfeffer and Salancik) is a boundary-decision rule well suited to a consideration of whether customers should be thought of as inside or outside the service organization. As Shamir (1978) observed, the customers of service organizations typically participate in the organization voluntarily and can withdraw their participation at any moment they choose. This freedom of movement is especially true in for-profit retail service organizations, i.e., the type of organization in the present research.

In sum, customers represent a potential substitute for leadership that does not "fit" in Kerr and Jermier's (1978) typology of characteristics internal to the organization. Instead, customers are more appropriately placed in an extra-organizational category of possible substitutes for leadership. Thus, considering the customers' role in service organizations not only identifies one new characteristic that may act as a substitute, it focusses attention on a whole new category of characteristics that may serve as non-leader sources of support and guidance for employees.

How Customers May Act as a Substitute for Leadership

There are two possible ways to think about how customers may act as substitutes for leadership. First, customers may simply take the place of leaders as an interpersonal source of instrumental and supportive behaviors. That is, employees may rely upon the customers' display of instrumental behaviors (e.g., telling the employee what needs to be done and how to do it) and supportive behaviors (e.g., telling employees things that are warming and self-worth enhancing) moreso than they rely upon the leaders' behaviors. In other words, customers may substitute for leaders as the individuals whose instrumental and supportive "leadership" matters to employees. Second, customers may define and shape the characteristics of the jobs performed by employees. Specifically, customers may say or do things that affect employees' perceptions of enriched task characteristics. In turn, enriched tasks (e.g., those that are intrinsically satisfying, provide employees feedback, etc.) have been suggested to be substitutes for leadership (Kerr and Jermier, 1978). Finally, it is most likely that customers exercise their influence in both these ways simultaneously.

That customers may act as a substitute in the first way (i.e., by simply taking the place of the leader), is a possibility given the frequent face-to-face interactions employees and customers have. Furthermore, customers can be expected to attempt to lead employees in the exchanges they have. As Schneider, Parkington, and Buxton (1980) have noted, customers can be viewed

as one of the service organization's multiple constituencies which try to dictate how the organization is to function effectively (Pennings and Goodman, 1977). In other words, customers have an interest in shaping the attitudes and performance of employees in a way that will result in the employees providing service in accordance with customers' desires.

Furthermore, employees may value guidance and support from their customers more than from their superiors. Service employees in boundary roles are, after all, often as close psychologically, or even closer, to their customers than to other employees of the organization (Aldrich and Herker, 1977; Parkington and Schneider, 1979). Also, Schneider et al. (1980) proposed, based on the vocational choice literature (Holland, 1973), that boundary role positions in service organizations attract socially-enterprising types who want to give good service. Indeed, it has been shown that employees may intend to quit their job if they think customers view the quality of service they receive as poor (Schneider and Bowen, 1983). These factors (the psychological bond between the typical service employee and the customer; the fact that it is important to give good service) combine to suggest that employees might rely upon customers as non-leader sources of guidance and support.

Employees might also rely upon customers as substitutes for leadership simply because doing so represents the path of least resistance. As Adams (1976) noted, boundary-role employees' ability to control and manipulate extra-organizational expectations

and pressures is, in many cases, more limited than their ability to control and manipulate intra-organizational expectations and pressures. Also, a formal expectation of many service employees is to act as though the customers were always right (Shamir, 1980). This can result in employees being particularly sensitive to guidance and support offered by customers.

Empirical work consistent with a conceptualization of customers as a substitute for leadership can be found in Ouchi's (1977) study on the controlling aspects of clients. He found that the nature of the clientele was a significant predictor of the control mechanisms used by the organization. Ouchi speculated that higher income clients will, in general, be more likely than lower-income clients to impose their will on the salesclerk. Furthermore:

> With the clients thus providing direct control over a large range of non-output measured goals, the store can safely place a great deal of emphasis on sales volume without worrying that employees will ignore other performance areas (Ouchi, 1977: p. 108).

Thus, control is exercised via a combination of formal organizational controls and clientele influence. Ouchi concluded by saying this is a view of control that "easily admits the actors in the environment into consideration" (1977: p. 111).

The second way the customers of service organizations were suggested to act as non-leader sources of support and guidance was by enriching the characteristics of jobs performed by service employees. In turn, enriched tasks may substitute for leadership. More specifically, the general hypothesis is that customers may

shape how employees perceive the following five core job dimensions of the Job Characteristics Model (Hackman and Lawler, 1971; Hackman and Oldham, 1975):

1. Skill variety. The degree to which a job requires a variety of activities, involving use of a number of different individual skills and talents.

2. Task identity. The degree to which a job requires completion of a whole, identifiable piece of work--that is, doing a job from beginning to end, with visible results at the end.

3. Task significance. The degree to which a job has a substantial impact on the lives or work of other people, whether within the organization or in the external environment.

4. Autonomy. The degree to which a job provides freedom, independence, and discretion to the individual in scheduling the work and determining the procedures to be used in carrying it out.

5. Task feedback. The degree to which carrying out the activities required by a job results in direct and clear information about the effectiveness of the employee's performance.

Tasks that have these five characteristics are considered to be enriched. Enriched tasks provide sources of both support and guidance for employees. That is, enriched jobs possess both the "push of work" and "pull of work" (Miner, 1975) that is necessary for tasks to be effective in controlling employee attitudes and performance. It was this logic that led Kerr and Jermier (1978) to propose that task characteristics such as task-provided feedback and intrinsically satisfying work might serve as substitutes for leadership.

The role of customers in shaping how employees perceive

these task characteristics was given only limited attention in the development of the job characteristics model. This likely reflects that the model was initially developed to guide the redesign of jobs in which employees dealt mainly with things, e.g. manufacturing jobs, clerical jobs involving typing and filing etc., rather than with persons. Hackman and his associates did, however, add the dimension "dealing with others" to supplement the five core job dimensions. The "dealing with others" dimension assessed the degree to which the job required employees to deal with other people (either customers, other company employees, or both) in order to complete the work. This supplemental dimension was included to see how an opportunity to satisfy social needs was related to employee satisfaction and motivation.

A central point in the present research is that in service organizations "dealing with others", i.e. customers, largely defines the very core of the job. In service organizations, customer-employee interactions are not just a supplemental job dimension, they can in large measure shape how employees perceive the other characteristics of their job. In this vein, Bell (1973) has described work in a post-industrial, services-oriented society as a "game between persons." In contrast, he described work in an industrial society as a "game against fabricated nature," e.g. machines. Similarly, several authors have noted that whereas the employees of manufacturing organizations work on inanimate raw materials, the employees of service organizations work on reactive,

animated customers (Perrow,1967; Shamir, 1978; Schneider and Bowen, 1983). Although these observations may not apply to all service organizations, they are particularly valid when looking at quinary service organizations that attempt to change the client in some way--the type of service organization in this research.

The point is that the customer plays a unique role in shaping the characteristics of jobs in service organizations. Shamir's descriptions of the customers of hotels suggests how this might be the case:

> Human beings are heterogeneous in their nature, their demands, their tastes and their expectations. To a greater extent than inputs to most production organizations, they present the hotel with many exceptions. . . (1978: p. 287).

And,

> In addition to their heterogeneity and unpredictability, their inflow into the system is much less steady or regular than the inflow of material to most production organizations. . . . Some of this variation can be predicted and planned for, but not always can the variation in usage be predicted by the organizations, since it is sometimes the coincidental result of many independent decisions. (1978: p. 287).

Certainly these observations suggest how customers can serve to define the task characteristics of skill variety and job autonomy, respectively. Furthermore, the relevance of customers for determining task significance is implied in the very definition of that job dimension, i.e., "impact on the lives or work of other people, whether within the organization or in the external environment." These points illustrate that the complex social interactions that frequently take place between customers and service employees can enrich the jobs these employees perform.

Indeed, establishing client relationships has been suggested as an effective strategy for implementing job enrichment (Hackman, 1977; Slocum and Sims, 1980).

In sum, customers may be an important substitute for leadership for employees of service organizations. Customers can be thought of as a non-leader source of influence essentially outside the organization that influences employees inside the organization. The manner in which customers may act as a substitute for leadership can be captured in each of two ways: (1) Employees may rely upon the customers' display of instrumental and supportive behaviors moreso than they rely upon leaders as an interpersonal source of these behaviors, and (2) Customers may enrich the tasks employees perform which, in turn, can substitute for leadership. Together, these two perspectives suggest customers are an important substitute for leadership in service organizations. Indeed, they may be the most important substitute of all.

Hypotheses

The central interest of this research concerns how strongly the customers of service organizations influence employee attitudes and performance compared to other sources. This interest is examined by testing a number of exploratory hypotheses about which leader or non-leader source of influence relates most strongly to employee: attitudes (their job satisfaction and service quality views) and performance (customer views of the quality of

service offered by the unit in which employees work and management rankings of unit performance):

H1. Customer supportive behavior will substitute for leader supportive behavior's influence upon employee attitudes and performance.

H2. Customer instrumental behavior will substitute for leader instrumental behavior's influence upon employee attitudes and performance.

H3. Customers as task enrichment will substitute for both leader supportive and instrumental behavior's influence upon employee attitudes and performance.

H4. Organizational formalization will substitute for leader instrumental behavior's influence upon employee attitudes and performance.

H5. Professional orientation will substitute for leader instrumental behavior's influence upon employee attitudes and performance.

H6. Customers will be a stronger substitute than either organizational formalization or professional orientation.

The attitude and performance criteria were chosen for the following reasons: Employee job satisfaction has been speculated to be a particularly important attitude in service organizations. This is because it may be that employees need to be satisified themselves before being concerned about satisfying customers (Schneider, 1976). Next, employees' own attitudes about service

quality have been described as a useful but overlooked diagnostic available to service organizations (Fitzsimmons and Sullivan, 1982). The use of management rankings in this study helped remedy the lack of attention performance criteria have received in other studies of the substitute construct. Further, several authors, e.g. Schneider (1980), have emphasized that measures of service employee performance should include an assessment of the quality of service offered; thus, the use of customer service quality views as a measure of employee job performance.

Organizational formalization and a professional orientation, from the Kerr and Jermier (1978) typology, were included to provide a benchmark against which to measure the strength of customers as a newly proposed substitute. More specifically, organizational formalization was chosen because it has consistently been shown to substitute for instrumental leader behaviors (Kerr and Jermier, 1978; Howell and Dorfman, 1981a, 1981b). Furthermore, the employees in the present sample made frequent references to the rules, budgets, etc. that they must deal with in performing their jobs (See Methods below). Professional orientation was chosen because it, too, was alluded to in the interviews with employees. Although a strong conceptual case has been made for why professionalism should act as a substitute (Kerr, 1977; Kerr and Jermier, 1978), it has not proven to be a substitute in most studies (Kerr and Jermier, 1978; Howell and Dorfman, 1981a). This study responds to the suggestion by Howell and Dorfman (1981a) to search for situations in which professionalism

may act as a substitute.

Finally, two issues that are not being addressed in this research deserve explanation. First, the hypotheses do not specify different relationships for each of the different attitude and performance criteria. For example, no hypothesis was made about whether a given substitute effect would be stronger with, say, customer service quality views as the criterion versus the management rankings. This was not done because the real interest in substitutes research is in whether a non-leader source can replace a leader source's influence upon the criterion, regardless of the magnitude of that influence. Furthermore, it was felt that: (1) for employee and customer service quality views as criteria there was insufficient prior research to guide specific hypotheses about how different aspects of leader and non-leader influence would affect them, and (2) for employee job satisfaction and performance criteria there is abundant research on how different dimensions of leadership affect them. However, the research results are contradictory and qualified enough that they, too, would not be particularly helpful in framing more specific hypotheses.

Lastly, the present research is not concerned with assessing neutralizers. This is consistent with the majority of the earlier work (Howell and Dorfman, 1981a, 1981b; Kerr and Jermier, 1978) which avoided an empirical test of the neutralizer construct. As discussed earlier, the one study (Sheridan et al., 1981) that did measure neutralizers did so in a way that was

inconsistent with how the construct was defined by Kerr and Jermier (1978).

The neutralizer construct is, nonetheless, interesting. However, it seems impossible, even unrealistic, to separate neutralizers from substitutes in "real life." First, recall the definition of substitutes by Howell and Dorfman (1981a) stated earlier. That definition of a substitute appeared to subsume Kerr and Jermier's (1978) statistical definition of a neutralizer. Secondly, it seems impossible to keep apart the leadership vacuum (created by neutralizers) and the characteristics which rush in to fill the vacuum (the substitutes). For these reasons, the present research does not attempt to identify characteristics that might act as neutralizers.

CHAPTER II

METHODOLOGY

Research Design

The design was a correlational field study. Survey data were collected from the employees and customers of eye-care departments. Rankings of departments by senior management were also obtained. Data were collected at one point in time.

Setting and Participants

Data for this study were collected from the employees, customers, and management of a national, retail, eye-care organization. The organization was composed of a large number of relatively autonomous departments. These departments were grouped by geographic region, with a Group Manager assigned to each. The departments were also classified as one of three different department types. The type of department depended upon the range of services provided and whether or not there was an eye doctor available. (Further description of these department types is not presented in order to preserve the organization's anonymity.) Department employees consisted of Department Managers, Dispensers (who performed duties such as fitting customers with glasses frames, adjustments, etc.), assorted other help, e.g. clerical, and

Surveys were mailed to employees and customers of these departments. Of the 972 employee surveys mailed, 525 surveys were returned for a response rate of 54 percent. Of the 17,866 customer surveys mailed, 2,680 surveys were returned for a response rate of 15 percent. These response rates are similar to those obtained in recent survey research studies (Schneider et al., 1980; Schneider and Bowen, 1983) of the employees and customers of banks, another for-profit service organization.

Data Collection Procedures

Employee and Customer Interviews.

Semi-structured interviews were conducted and tape recorded with samples of small groups of employees and customers. The interviews were used to help determine the variables and issues most appropriate for consideration in this study, as well as in the larger research project of which this study was a part. The larger project had as its focus the quality of service in the different departments as perceived by both employees and customers. The entire research effort was enthusiastically endorsed by the organization's management who notified employees of the forthcoming interviews and surveys and encouraged them to participate.

The researchers used the following questions to guide the employee interviews: (1) Describe your (the employee's) job and what makes for your good days and bad days on the job, (2) What is your definition of good customer service? and (3) What things

interfere with (or promote) your ability to provide the best service possible? The employees' answers helped reveal what the employees considered to be good performance in their service organization, as well as their perceptions of the sources that influenced their performance and attitudes at work.

The customer interviews involved a discussion of the following topics: (1) descriptions of their experiences within the department, (2) explanations of what good service meant to them, and (3) summary evaluations of the qaulity of service they had received in the past. The customers' answers indicated how they viewed the department's service quality overall, as well as what specific department practices and procedures they considered related to service quality.

The employee and customer answers, in combination with issues identified by the researcher in other studies of service organizations (Schneider and Bowen, 1983), were then used to guide the development of the employee and customer surveys. Only portions of these surveys were directly relevant to the present hypotheses.

Survey Administration.

Surveys were mailed to all employees and to a sample of 50 customers from the departments that had provided the researchers the necessary customer address labels by the time the surveys had to be mailed. The surveys were mailed approximately two to three months after the interviews were completed. Both the employee and

customer surveys were accompanied by a return business reply envelope.

The employee survey was also accompanied by a letter from the company's president requesting participation. In this letter, employees were assured that their individual responses would never be seen by management and that company management would receive no survey feedback identified by department number. To facilitate follow-up research, the employee survey had a stick-on name and address label attached, but employees were told to remove the label if they desired (approximately 25 did so). The letter made clear that participation was voluntary. In addition, the mailing to employees contained a copy of the survey sent to customers. This was done to relieve any anxiety employees may have had about what questions were being asked of their customers. It also enabled employees to respond knowledgeably to questions customers might ask them about the survey they had received.

Finally, two reminders were sent to employees by the company president encouraging those who had not yet responded to return their survey.

Data from Senior Management.

The departments within each group were ranked from "best" to "worst" by their Group Manager. The Group Managers were told to use any basis they wanted in making the rankings. The best department was assigned the number one and the worst department was assigned the number equalling the number of departments within the

group. These rankings were collected at the same time the surveys were administered.

These rankings provided a tool for at least partially controlling for factors other than leadership and its substitutes that might affect an exclusively dollar-based department performance criterion, e.g. profitability. The interviews with employees, coupled with common business sense, had suggested a limitless number of variables that it would be desirable to control for if department profit was the criterion, e.g., department type, the relationship with the host store, location, age of department, etc. It was infeasible to a priori specifiy all relevant variables, collect data on each, and then subsequently control for their effects. Instead, it was decided that the rankings could provide a "natural" standardizing of the performance data, i.e., Group Managers would likely weigh the effects of relevant control variables before ranking the departments.

Subsequent analyses between the rankings and department net profit revealed $r = .53$ ($p < .001$), suggesting that Group Managers at least considered profit in their rankings but also considered (i.e., controlled for) other issues as well. When asked what these other issues were, Group Managers indicated several common considerations: quality of staff, location, achievement versus potential, and progress compared to past performance.

Measures

Customers as a Substitute for Leadership: Acting as an

Interpersonal Source of Supportive and Instrumental Behaviors.

Two three-item scales were used to assess the degree to which customers take the place of leaders as an interpersonal source of instrumental and supportive behaviors. In Table 7, both the "Customer Supportive Behavior" items and the "Customer Instrumental Behavior" items are shown. The items in both scales are identical to the Schriesheim (1978) items describing the leader's behaviors except that customers substitute for the leader as the subject/focus of each item. For example, the leader supportive behavior item, "my immediate supervisor acts rudely towards me (R)" became "customers act rudely towards me (R)." This wording appeared to provide the most straightforward approach to measuring whether the instrumental and supportive behaviors of customers or leaders were the most strongly related to employee outcomes.

The Customer Instrumental Behavior scale, as originally developed, included all three aspects of instrumental leadership described by Schriesheim (1978). In other words, it contained one item for each of the three instrumental behavior dimensions, i.e., role clarification, specification of procedures, and work assignment. There were two reasons for this approach: (1) it was assumed that employees would perceive "leadership behaviors" displayed by customers in less differentiated terms than they viewed the behavior of their supervisor. That is, because employees see many customers, but only one leader, it appeared

TABLE 7

CUSTOMERS AS A SUBSTITUTE FOR LEADERSHIP: ACTING AS AN INTERPERSONAL SOURCE OF INSTRUMENTAL AND SUPPORTIVE BEHAVIORS

CUSTOMER SUPPORTIVE BEHAVIOR

1. Patients do things to make my job more pleasant.
2. Patients act rudely towards me (R).
3. Patients treat me without considering my feelings (R).

CUSTOMER INSTRUMENTAL BEHAVIOR

1. Patients explain what is expected of me on my job.
2. Patients tell me how I am to go about doing my job.
3. Patients let me decide what specific things to do for them (R). (dropped)

1 = Very True	3 = Neither True nor False	4 = False
2 = True		5 = Very False

likely that the three dimensions of instrumental behaviors would blur with customers as the focus. (2) It was neither possible nor desirable to use all fifteen of the instrumental leadership items in customer form. It was not possible because of space constraints in the survey. It was not desirable because it was felt that to essentially repeat all the instrumental items would sensitize respondents to the researcher's interest in contrasting supervisor and customer behavior. This could have resulted in respondents trying to answer the items so as to make their supervisor look relatively "good" or "bad," rather than merely answering the questions as actual descriptions of their supervisor's behavior.

The Customer Instrumental Behavior scale originally had an alpha coefficient of .43. An examination of the scale's item-total correlations resulted in dropping the work assignment item, "Patients let me decide what specific things to do for them" in order to have a more acceptably reliable measure of customer's instrumental behavior. The Customer Instrumental Behavior scale actually used, then, assessed only role clarification and specification of procedure behaviors and had an alpha coefficient of .66. For the Customer Supportive Behavior scale, the alpha coefficient was .62.

Customers as a Substitute for Leadership: Acting as a Source of Task Enrichment.

This measure consisted of five items written to assess how customers may influence employees' perceptions of the five core job

dimensions of the job characteristics model (Hackman and Lawler, 1971; Hackman and Oldham, 1976). For example, the item, "Patients say or do things that make me feel that what I do on my job is important," was written to assess how customers may be a source of perceived task significance. These items are shown in Table 8. A Customers as Task Enrichment score was created by summing each employee's responses to the five items. Missing data was handled by deleting any case in which all five items were not answered.

There were several reasons why the Customers as Task Enrichment items were simply summed rather than inserted into the Motivation Potential Score (MPS) algorithm proposed by Hackman and Oldham (1975). Principally, Roberts and Glick (1981) have summarized persuasive evidence that indicates a simple additive combinatorial strategy has the same predictive ability as the Hackman and Oldham multiplicative model, while at the same time being more parsimonious. Secondly, there was Schmidt's (1973) concern with multiplying scales that are at best interval rather than ratio. This concern was particularly telling in the present study where the job characteristic dimensions were assessed by single items. Finally, since this study was not really intended to be a test of Hackman and Oldham's model, it was not imperative to use their more complicated combinatorial strategy. The Customers as Task Enrichment scale had an alpha of .28. Since the five core job dimensions of the job characteristics model were claimed to be theoretically independent (Hackman and Lawler, 1971; Hackman and

TABLE 8

CUSTOMERS AS A SUBSTITUTE FOR LEADERSHIP: ACTING AS A SOURCE OF TASK ENRICHMENT

1. The requests patients make of me require me to use a wide variety of skills in serving them (skill variety).

2. Patients say or do things that make me feel that what I do on my job is important (task significance).

3. The work I do with patients normally involves finishing whatever I start with them (e.g., order their glasses/lenses and then dispense them later on) (task identity).

4. After I've done something for a patient, I know I'll find out from them whether they're satisfied with what I did (feedback).

5. The nature and flow of the patients' requests (in the Department or by phone) allows me little freedom in scheduling my work and in deciding how to carry it out (autonomy). (R)

1 = Very True	3 = Neither true nor False	4 = False
2 = True		5 = Very False

Oldham, 1975), the low alpha of the present scale is consistent with the model's propositions.

Professional Orientation.

A three item scale adapted from Kerr and Jermier (1978) was developed (Table 9). Items (1) and (2) of this study's scale were identical to the original Kerr and Jermier (1978) items. The third Kerr and Jermier item, "My job satisfaction depends to a considerable extent on people in my occupational specialty who are not members of my employing organization," was not used. It was felt that because the item contained a non leader source and a subordinate outcome that it was more a measure of a substitute for providing employee outcomes than of a substitute for leadership, per se. It was replaced by the item, "I rely upon what I believe to be the professional standards of the optical field to guide my work." A third item was desirable in order to at least maintain the already short length of the original Kerr and Jermier scale. It should be noted that the way the items are worded in this scale, Professional Orientation is reduced to being only a potential substitute for instrumental leadership, only. That is, all the items have a guiding, rather than supporting influence.

Unfortunately, this three item Professional Orientation scale had an alpha of only .38. Examination of item-total correlations revealed that, at best, the scale's alpha would only be .44. This was an unacceptable level of reliability, given the scale was intended to be a uni-dimensional measure composed of

internally consistent items. This, in contrast to the Customers as Task Enrichment scale where the low alpha (.28) confirmed the intended theoretical independence of the items. The Professional Orientation scale was dropped from subsequent analyses.

Organizational Formalization.

A seven item scale adapted from Kerr and Jermier (1978) was used (Table 9). Six of the seven items were identical to the original Kerr and Jermier items. The seventh item, "This organization has a policy in writing for every situation one can encounter" was added because the employee interviews indicated many employees viewed the formalization within the organization in terms of this issue. The alpha for the Organizational Formalization scale was .72.

Leader Behaviors.

Items from the leadership scales developed by Schriesheim (1978) were used to create three different leader behavior scales (see Table 10). One was Leader Supportive Behavior, which consisted of seven of Schriesheim's original eleven support items. Four items were dropped due to space constraints in the survey and the assumption that seven items with an average intercorrelation of .63 would yield a sufficiently reliable scale score for analyses. Specifically, given the reliability coefficient of .95 for Schriesheim's eleven items reported in Kerr and Jermier (1978), it was assumed (based on the Spearman-Brown Prophecy Formula) that the average item intercorrelation was 63.

TABLE 9
PROFESSIONAL ORIENTATION AND ORGANIZATIONAL FORMALIZATION

PROFESSIONAL ORIENTATION (Dropped)

1. For feedback about how well I am doing my job, I rely on people in the optical field, whether or not they work for this organization.

2. I receive very useful information and guidance from people in the optical field who do not work for this organization.

3. I rely on what I believe to be the professional standards of the optical field to guide my work.

ORGANIZATIONAL FORMALIZATION

1. My job responsibilities are clearly specified in writing.

2. This company has a policy in writing for every situation one can encounter.

3. Written schedules and work specifications are available to guide me on my job.

4. There are contradictions and inconsistencies among the written goals and objectives of this company(R).

5. Performance appraisals at this company are based on written standards.

6. My duties, authority, and accountability are documented in organizational policies, procedures, and job descriptions.

7. Written documents (e.g., budgets, schedules, etc.) are used as an essential part of my job.

1 = Very True	3 = Neither True nor False	4 = False
2 = True		5 = Very False

TABLE 10

LEADER BEHAVIOR SCALES

1) LEADER SUPPORTIVE BEHAVIOR

1. Maintains a friendly working relationship with one.
2. Looks out for my personal welfare.
3. Behaves in a manner which is thoughtful of my personal needs.
4. Does things to make my job less pleasant (R).
5. Treats me without considering my feelings (R).
6. Shows respect for my personal feelings.
7. Acts rudely towards me (R).

2) LEADER INSTRUMENTAL BEHAVIOR

Role Clarification

1. Gives vague explanations of what is expected of me on the job (R).
2. Gives me unclear goals to reach on my job (R).
3. Explains the level of performance that is expected of me.
4. Explains what is expected of me on my job.
5. Explains the quality of work that is expected of me.

Specification of Procedures

6. Tells me how I am to go about doing my job.
7. Permits me to ignore rules and regulations which affect how I do my job (R).
8. Lets me develop my own methods of doing my job (R).
9. Gives me instructions on how to do my job.
10. Decides how I am to do my job.

3) TOTAL LEADER BEHAVIOR [includes all the above items]

1 = Very True 2 = True 3 = Neither True nor False 4 = False 5 = Very False

This was the figure used here to estimate the probable alpha of a scale with seven items. This Leader Supportive Behavior scale had an alpha coefficient of .90.

The second scale was Leader Instrumental Behavior, which was originally to have combined all three aspects of instrumental behaviors described by Schriesheim: role clarification, work assignment, and specification of procedures. However, since the work assignment dimension was dropped from the Customer Instrumental Behavior scale, it was also dropped from the Leader Instrumental Behavior scale. This was done so that the same set of instrumental behaviors would be the focus when comparing relationships between customer and leader instrumental behavior with employee outcomes. The Leader Instrumental Behavior scale actually used, then, was composed of only role clarification and specification of procedures items.

There is both conceptual and empirical justification for combining these two aspects of instrumental leadership. Conceptually, as noted earlier, it was felt that customers could substitute for leader instrumental behavior only in a global sense, not as a substitute for each specific aspect of leader instrumental behavior. Thus, one measure of leader instrumental behavior was required for which the one measure of customer instrumental behavior might be tested as a substitute. The empirical justification is provided by the .78 alpha computed for this leader instrumental behavior scale. This indicated that although Schriesheim (1978) has treated the dimensions of instrumental

leadership distinctly, role clarification and specification of procedures can, nonetheless, be scaled together with good internal consistency. (In one analysis, described later, Leader Role Clarification and Leader Specification of Procedures were used separately. Their alphas were .82 and .56, respectively.)

The final leader behavior scale was Total Leader Behavior. This scale consisted of all the items from the Leader Supportive Behavior and Leader Instrumental Behavior scales. The alpha coefficient for the Total Leader Behavior scale was .85. The Total Leader Behavior scale was used in analyses involving customers as task enrichment, which was hypothesized to substitute for both the leader's instrumental and supportive behavior.

All respondents were asked to describe their "immediate supervisor" when describing leader behaviors. Use of this response set allowed each respondent to describe the relevant person without having to provide separate foci for employees in different roles. Note that because Doctors were autonomous members of the departments they did not respond to these items and are not included in the analyses.

Job Satisfaction.

Job satisfaction was measured by a five-point faces scale (Kunin, 1955).

Employee and Customer Perceptions of Service Quality.

Employees were asked to describe the overall quality of service in their department by responding to the following item: "Indicate with a check mark (✓) how you think the customers of your

department view the general quality of the service they receive in your department." Six alternatives were provided: outstanding, excellent, good, not so good, bad, terrible. This item provided a measure of employees' attitudes about the quality of service provided by their department to customers.

Customers also were asked their service quality views by using a similar item that read: "Check the box ☑ that best describes the general quality of the service you receive in your department." The same six-point scale used in the employee survey was used for this item. The mean of the customers' service quality perceptions was computed for each department and used as one measure of department workgroup performance.

The interrater reliability of department customers' service quality perceptions was assessed to determine whether the department mean represented customer consensus on the quality of service provided by the department. Interrater reliability was assessed in two ways: (1) A between-groups one-way ANOVA was run on customer service quality perceptions ($F = 1.89$, $p < .001$, df, 132). A significant F, of course, suggested that variation among individuals was associated more with differences between departments than within departments. That is, it is an indication of within department agreement. Second, a procedure developed by James, Wolf, and Demaree (1981) for estimating interrater reliability in incomplete designs was used (see Note 1 in Appendix A). This procedure provides direct estimates of within-group

interrater reliability. Therefore, it requires no assumptions about mean differences between departments, as does the ANOVA model. Applying the James et al. formula yielded a .68 estimate of interrater reliability for customer perceptions of service quality. (Estimates can range from 0 to 1.00; the procedure does not provide significance levels for the values obtained). Both of these estimates of interrater reliability indicated that the mean of department customers' service quality perceptions was a reliable measure of one aspect of department performance.

Department Rank.

In addition to the mean of the customers' service quality perceptions, the Group Managers' department rankings were used as a measure of department performance. Given there were different numbers of departments within groups, it was necessary to somehow make the rankings comparable across groups. This was done by using a procedure suggested by Guilford (1954). In this procedure (See Note 2 in Appendix A), a centile value is computed for each ranking that accounts for the number of units ranked within each group. These centile values are then converted to Z-values, thus making the rankings comparable across groups.

Data Analysis

As mentioned in the review of studies on substitutes for leadership, no one data analysis strategy has emerged as most appropriate for studying the substitutes construct. In this study,

the data were analyzed using correlation and regression analyses. The analysis primarily involved a series of comparisons within pairs of correlations. Each pair of correlations consisted of a leadership scale's correlation with one of the criteria versus its hypothesized substitute's correlation with the same criterion. For example, the difference between r (leader support-job satisfaction) and r (customer support-job satisfaction) was tested. These comparisons were made for each possible pairing of a leadership dimension and its hypothesized substitute across all four dependent variables.

The classification strategy presented in Table 11 was then used to describe to what degree, if any, a given characteristic acted as a substitute for leadership. The table shows four different sets of outcomes (A, B, C, D) that can occur when computing zero-order correlations and testing for the significance of the difference between them. The outcomes are arranged from A to D based upon their demonstrating decreasing evidence that a characteristic acts as a substitute. Thus, the top-line outcome in A (The potential substitute is significantly correlated with the criterion, but leadership is not. The difference between correlations is significant) indicated that a characteristic acts as a strong substitute for leadership. At the other extreme, the last-line outcome in D (Leadership is significantly correlated with the criterion but the potential substitute is not. The difference between correlations is significant) indicated that a characteristic clearly <u>does not</u> act as a substitute for leadership.

TABLE 11

DATA ANALYSIS OUTCOMES FOR DETERMINING IF A CHARACTERISTIC IS A SUBSTITUTE

Zero-Order Correlations
S = significant
NS = nonsignificant

Possible Outcome	Potential Substitute Criterion		Leadership Criterion	Significant Difference (*)[a]	Strength of Potential Substitute's Effect (Descending Order)
A)	S	>	NS	*	Strong substitute
	S	>	NS		Substitute
B)	S	>	S	*	Could be a substitute
	S	>	S		or
	S	<	S		Only is a supplement[b]
	S	<	S	*	
C)	NS	>	NS	*	Not a substitute;
	NS	>	NS		no leadership effect
	NS	<	NS		either
	NS	<	NS	*	
D)	NS	<	S		Not a substitute;
	NS	<	S	*	Leadership has an effect

[a]Hotelling's (1940) formula for difference between correlated coefficients of correlation (See Note 3 in Appendix A).

[b]Determined by outcome of hierarchical regression analysis.

Outcomes in set B are the other results--in addition to A--that can indicate that a characteristic acts as a substitute for leadership. Here, both the potential substitute and leadership are significantly correlated with the criterion. When this occurred, an additional analysis was run to see if the potential substitute actually could take the place of leadership, thus making it impossible or unnecessary for leadership to continue to have a significant effect on the criterion. This possibility was tested using the hierarchical regression strategy suggested by Howell and Dorfman (1981a; 1981b). In their procedure, the potential substitute was entered first in a hierarchical regression equation, followed by leadership. If the beta weight for leadership was nonsignificant, then it was concluded that the potential substitute could substitute for leadership. If, however, the beta weight for leadership remained significant, then the potential substitute could not be considered to "take the place of" leadership. In these situations, Howell and Dorfman said the potential substitute was more appropriately termed a supplement to leadership. Finally, to complete the explanation of Table 11, neither type C nor D outcomes were considered to be substitutes for leadership.

This classification strategy was applied not only to the customers as substitutes scales, but to organizational formalization, as well. Additionally, in those situations where both a customer scale and organizational formalization proved to be substitutes, the difference between their respective correlations with a common criterion was examined to identify the stronger

substitute.

A final analysis step was performed to test the central, general hypothesis of the research: that customers may be a stronger source of influence in service organizations than leaders. Here, the overall influence of customers was compared to the overall influence of leaders against each of the four criteria. This was done by first regressing a criterion upon the three customer scales (Customer Supportive Behavior, Customer Instrumental Behavior, and Customers as Task Enrichment), then regressing the same criterion on three leader behavior scales (leader supportive behavior, leader specification of procedures, and leader role clarification) The leader and customer multiple Rs were compared in all four cases and the classification strategy in Table 11 was used to describe the overall effect of customer influence. The significance of the difference between multiple Rs was tested using Sympson's (1979) procedure (see Note 4 in Appendix A).

This analysis strategy was followed twice--first at the individual level of analysis and, second, at the department level. In the individual level analysis, the data from all employees (Department Managers and Dispensers) were in included (N = 500). The criteria were each individual employees' job satisfaction and service quality perceptions. The focus of this analysis was how these criteria were related to the employees' perceptions of their immediate supervisors' leadership, as well as to their perceptions

of the various substitutes.

The second analysis was done at the department level. Data from Dispensers, only, was used. The Dispensers' perceptions of their Department Managers' leadership, as well as the possible substitutes for leadership, were aggregated within departments (N = 166). It was not possible to assess the interrater agreement of the Dispensers' perceptions given the small size of the departments (none larger than eight employees) and the requirement of the James et al. (1981) procedure to have at least ten raters per unit in order to yield unbiased estimates. The criteria used were the two measures of department performance, i.e., department rank and the mean of the customers' perceptions of the quality of service provided by the departments. The focus of this analysis, then, was how these department performance criteria were related to the Department Managers' leadership of the department (as perceived by the Dispensers) as well as the substitutes for leadership.

CHAPTER III

RESULTS

Intercorrelations Among Variables

Individual-level intercorrelations are reported in Table 12 for the leadership and potential substitute variables and the two attitude criteria used at this level of analysis: employee job satisfaction and employee perceptions of service quality. Scale reliabilities appear in parentheses on the diagonal and are Cronbach alphas unless noted otherwise. Means and standard deviations for these variables at the individual level appear in Appendix B.

Table 13 contains the department-level intercorrelations for, again, the leadership and potential substitute variables and the two performance criteria used at this level of analysis: customer perceptions of service quality and department rank. Reliability estimates for the criteria are noted on the diagonal. Means and standard deviations for these variables at the department-level appear in Appendix C. Note that at both levels of analysis the correlation between leader instrumental behavior and leader supportive behavior is positive, but the correlation between customer instrumental behavior and customer supportive behavior is negative.

TABLE 12

INTERCORRELATIONS AMONG VARIABLES
AT THE INDIVIDUAL LEVEL

Variable	1	2	3	4	5	6	7	8	9
1. Leader Supportive Behavior	(.90)								
2. Leader Instrumenal Behavior	.38***	(.78)							
3. Total Leader Behavior	.75***	.86***	(.86)						
4. Customer Supportive Behavior	.12**	.11**	.13**	(.62)					
5. Customer Instrumental Behavior	-.18***	-.08	-.15***	-.29***	(.66)				
6. Customers as Task Enrichment	.11**	.21***	.19***	.36***	-.12***	(.28)[a]			

TABLE 12--Continued

Variable	1	2	3	4	5	6	7	8	9
7. Organizational Formalization	.24***	.42***	.39***	.19***	-.06	.38***	(.72)		
8. Employee Perceptions of Service Quality	.28***	.20***	.28***	.30***	-.10*	.20***	.20***([b])		
9. Employee Job Satisfaction	.35***	.26***	.37***	.32***	-.16***	.26***	.21***	.39***([b])	

*p < .05; **p < .01; ***p < .001. Note: Because of incomplete data, sample size ranges from 416 to 498. Cronbach alphas are in parentheses; [a]theorectically independent items, [b]single-item measure.

TABLE 13

INTERCORRELATIONS AMONG VARIABLES
AT THE DEPARTMENT LEVEL

Variable	1	2	3	4	5	6	7	8	9
1. Leader Supportive Behavior									
2. Leader Instrumenal Behavior	.52***								
3. Total Leader Behavior	.75***	.93***							
4. Customer Supportive Behavior	.10	.15*	.13						
5. Customer Instrumental Behavior	-.15*	-.18*	-.20**	-.40***					
6. Customers as Task Enrichment	.11	.26***	.21**	.38***	-.15*	(.28)[a]			

TABLE 13--Continued

Variable	1	2	3	4	5	6	7	8	9
7. Organizational Formalization	.24**	.41***	.40***	.29***	.04	.37***			
8. Customer Service Quality Perceptions	.15*	.20*	.19*	.08	.03	.15*	.16*	(.68)[a]	
9. Department Rank	.12	.12	.12	.21**	-.23**	.12	.03	.03	(b)

*p < .05; **p < .01; ***p < .001. [b]Note: Because of incomplete data, sample size ranges from 165 to 115: [a]interrater reliability, [b]not assessed.

Correlates of Employee Job Satisfaction: Individual-Level Analysis with All Employees

These results concern whether customers, as well as organizational formalization, can substitute for different leader behaviors as correlates of employee job satisfaction. Recall the data analysis strategy involves examining which alternative source of influence, i.e. customers versus leaders, correlates more strongly with the criterion--in this case, employee job satisfaction.

Table 14 summarizes the results from Table 12 with respect to: (1) the zero-order correlation between leadership and the job satisfaction criterion, (2) the zero-order correlation between the hypothesized substitute for leadership and the job satisfaction criterion, and (3) which of the two correlations was larger and the significance or nonsignificance of the differences between them. These three outcomes were then used to describe the effect of a potential substitute using the classification strategy presented in Table 11.

All leader and substitute scales correlated significantly with the employee job satisfaction criterion. For both leaders and customers, supportive behavior was the strongest correlate. All significant correlations were positive except for customer instrumental behavior. It correlated negatively with employee job satisfaction ($r = -.16$, $p < .001$). Thus, whereas the supportive behaviors of both leaders and customers related positively to

TABLE 14

COMPARISON OF LEADERSHIP AND POTENTIAL SUBSTITUTES' RELATIONSHIPS WITH EMPLOYEE JOB SATISFACTION (INDIVIDUAL-LEVL ANALYSIS WITH ALL EMPLOYEES)

Criteria	Leadership		Potential Substitute	Significance of Difference	Description of Potential Substitutes' Effect
Employee Job Satisfaction	Leader Supportive Behavior .35***	>	Customer Supportive Behavior .32***	NS	Acts as a Supplement
	Leader Instrumental Behavior .26***	>	Customer Instrumental Behavior -.16***	S	Acts as a Supplement (i.e., acts as a negative addition)
	Total Leader Behavior .37***	>	Customers as Task Enrichment .26***	NS	Acts as a Supplement
	Leader Instrumental Behavior .26***	>	Organizational Formalization .21***	NS	Acts as a Supplement

***p < .001

employee job satisfaction, for instrumental behavior only leader behavior had a positive relationship with job satisfaction.

The size of the leadership correlation always exceeded that of the customer correlation. However, these results should be viewed in the context of two qualifications. First, in only one pair was the leadership correlation significantly greater than the customer correlation. This was where the leader instrumental behavior positive correlation was significantly greater than the customer instrumental behavior negative correlation ($t = 6.23$; $p < .01$; two-tailed test).

Second, the fact that the leader scales correlated more strongly with employee job satisfaction than did the customer scales certainly in part reflected the higher reliability of the leader scales. The leader scale alphas were .90 for leader supportive behavior and .78 for leader instrumental behavior. On the other hand, the customer scale alphas were .62 for customer supportive behavior and .66 for customer instrumental behavior.

A "fair" test (in measurement terms) of whether customers or leaders are a stronger influence on employee job satisfaction would require that the scales for each have identical reliabilities. A fair test was produced by using Nunnally's (1978) formula (see Note 5 in Appendix A) for estimating the correlation between two variables when the reliability of one of the variables has been increased by a particular amount. Thus, the pairwise comparisons were reassessed with the alpha of the Customer Support scale increased to .90 (the alpha for leader support) and the alpha

of the Customer Instrumental scale increased to.78 (the alpha for leader instrumental). (Note: In this approach, the customer scales were not fully corrected for attenuation. That is, they were not corrected to some mythical $\underline{r}$ = 1.00; they were only corrected to the level of reliability of the leaders scales, to which they were compared. Finally, it was not appropriate to correct for internal consistency in the Customers as Task Enrichment scale, given it was composed of theoretically independent items).

Table 15 shows the revised pairwise comparisons involving employee job satisfaction when the leader and customer scales have equal reliabilities. These results show that if we were able to measure customer supportive behavior as reliably as we measure leader supportive behavior, then customer support would correlate more strongly (but not significantly) with employee job satisfaction than does leader support. Indeed, in absolute terms customer supportive behavior would be the strongest correlate of employee job satisfaction.

Turning to the actual classification of the potential substitutes' effects, since all the correlations in the pairwise comparisons were significant, this indicated (based on the classification strategy in Table 11) that each potential substitute could either be a substitute or only a supplement. To determine which of these two roles best described the potential substitute's effect, the hierarchical regression strategy described in the

TABLE 15

REVISED COMPARISONS OF LEADER BEHAVIORS VERSUS CUSTOMER BEHAVIORS RELATIONSHIPS WITH EMPLOYEE JOB SATISFACTION

Criteria	Leadership	Potential Substitute Reliability Unadjusted	Potential Substitute Reliability Adjusted
Employee Job Satisfaction	Leader Supportive Behavior .35***	Customer Supportive Behavior .32***	.39***
	Leader Instrumental Behavior .26***	Customer Instrumental Behavior -.16***	-.17***

***p < .001

Methods section was used. Recall that this is a strategy adapted from Howell and Dorfman (1981a; 1981b) in which the potential substitute is entered first in a hierarchical regression equation, followed by leadership. If the leadership beta weight is then nonsignificant, it is concluded that the potential substitute indeed could act as a substitute for leadership. This is true because the potential substitute makes the effect of leadership impossible and unnecessary, i.e., nonsignificant. If, however, the leadership beta weight is significant, then the effect of leadership is both possible and necessary. In that case, the significant effect of the potential substitute only adds to, i.e., supplements, the leadership effect.

In the hierarchical regression analyses against the job satisfaction criterion, the leadership beta weight was always significant (See Table 16). Consequently, the potential substitutes can best be described as supplements to leadership. However, in the case of customer instrumental behavior this description is somewhat misleading, because although it adds a significant effect to leadership's, it is a negative addition. The nature of the contribution of customer instrumental behavior will be considered further in the Discussion section.

Since the analysis did not reveal any substitutes, it was not necessary to determine whether customers were a stronger substitute than organizational formalization. It can be noted, however, that the effect of organizational formalization as a supplement is significantly stronger (and in an opposite direction

TABLE 16

HIERARCHICAL MULTIPLE REGRESSIONS OF EMPLOYEE JOB SATISFACTION ON VARIOUS POTENTIAL SUBSTITUTE AND LEADERSHIP COMBINATIONS

Step	Variable	Beta	Cumulative R
1	Customer Supportive Behavior	.27***	.31
2	Leader Supportive Behavior	.31***	.44
1	Customer Instrumental Behavior	-.13**	.14
2	Leader Instrumental Behavior	.24***	.27
1	Customers as Task Enrichment	.18***	.24
2	Total Leader Behavior	.28***	.36
1	Organizational Formalization	.18***	.25
2	Leader Instrumental Behavior	.16**	.29

**p < .01; ***p < .001

from) than the effect of customer instrumental behavior as a supplement.

Correlates of Employee Perceptions of Service Quality: Individual-Level Analysis with All Employees

Table 17 reports the results concerning whether leader behaviors or the potential substitutes correlated more strongly with the criterion of employee perceptions of service quality. The same pattern of results found for employee job satisfaction was obtained: All leader and substitute scales correlated significantly with employee perceptions of service quality. However, the correlations were systematically lower than when job satisfaction was the criterion. Supportive behavior was again the highest correlate for both the leadership measures and substitute measures. Also, the significant correlations were positive with the exception, again, of customer instrumental behavior ($r = -.10$).

The results for employee perceptions of service quality also differed from those for employee job satisfaction in that there were two comparisons where the leadership correlations did not exceed the potential substitutes' correlations. First, the correlation for customer supportive behavior was stronger, but not significantly, than the correlation for leader supportive behavior ($r = .30$; $p < .001$ and $r = .28$; $p < .001$, respectively). Second, the correlation between organizational formalization and the service quality criterion equalled the correlation between leader instrumental behavior and perceptions of service quality ($r = .20$,

TABLE 17

COMPARISON OF LEADERSHIP AND POTENTIAL SUBSTITUTES' RELATIONSHIPS WITH EMPLOYEE PERCEPTIONS OF SERVICE QUALITY (INDIVIDUAL-LEVEL ANALYSIS WITH ALL EMPLOYEES)

Criteria	Leadership		Potential Substitute	Significance of Difference	Description of Potential Substitutes' Effect
Employee Perceptions of Service Quality	Leader Supportive Behavior .28***	<	Customer Supportive Behavior .30***	NS	Acts as a Suplement
	Leader Instrumental Behavior .20***	>	Customer Instrumental Behavior -.10*	S	Acts as a Supplement (i.e., acts as a negative addition)
	Total Leader Behavior .28***	>	Customers as Task Enrichment .20***	NS	Acts as a Supplement
	Leader Instrumental Behavior .20***	=	Organizational Formalization .20***	NS	Acts as a Supplement

*p < .05; ***p < .001

$p < .001$). Finally, the only pair of correlations in which there was a significant difference was between leader instrumental behavior ($r = .20$, $p < .001$) versus customer instrumental behavior ($r = -.10$, $p < .001$; $t = 4.39$, $p < .01$, two-tailed test).

To further clarify the relative strength of customers versus leaders as sources of influence, the reliabilities of the Customer Instrumental and Supportive Behavior scales were again adjusted to equal the reliabilities of the comparable leader scales. The revised comparisons using the corrected customer scales appear in Table 18. After the correction, customer supportive behavior appears a bit more clearly as the strongest correlate of employee perceptions of service quality but the difference between the adjusted correlation for customer supportive behavior and leader supportive behavior was also not significant.

With respect to classifying the potential substitutes' effects, the fact that both leadership and its hypothesized substitute were significantly correlated with the criterion in all comparisons required that the hierarchical regression strategy be followed again. In all cases, the beta weight for leadership was significant (See Table 19). Thus, all the potential substitutes were described as supplements. Again, the negative addition made by customer instrumental behavior will be considered in the Discussion section.

TABLE 18

REVISED COMPARISONS OF LEADER BEHAVIORS VERSUS CUSTOMER BEHAVIORS RELATIONSHIPS WITH EMPLOYEE PERCEPTIONS OF SERVICE QUALITY

Criteria	Leadership	Potential Substitute: Reliability Unadjusted	Potential Substitute: Reliability Adjusted
Employee Perceptions of Service Quality	Leader Supportive Behavior .28***	Customer Supportive Behavior .30***	.36***
	Leader Instrumental Behavior .20***	Customer Instrumental Behavior -.10*	-.11*

***p < .001

Correlates of Customer Perceptions of Service Quality: Department-Level Analysis with Aggregated Dispenser Data

Table 20 contains results for the relationships between customer perceptions of service quality and aggregated Dispensers' perceptions of the Department Managers' leadership and the substitutes for leadership. All three leader scales correlated significantly with the customer perceptions of service quality criterion. However, of the three customer scales, only customers as task enrichment correlated significantly with the criterion ($r = .15$; $p < .05$); neither customer supportive behavior ($r = .08$, ns) nor customer instrumental behavior ($r = .03$, ns) were significant

TABLE 19

HIERARCHICAL MULTIPLE REGRESSIONS OF EMPLOYEE SERVICE QUALITY PERCEPTIONS ON VARIOUS POTENTIAL SUBSTITUTE AND LEADERSHIP COMBINATIONS

Step	Variable	Beta	Cumulative R
1	Customer Supportive Behavior	.26***	.28
2	Leader Supportive Behavior	.22***	.36
1	Customer Instrumental Behavior	-.10*	.11
2	Leader Instrumental Behavior	.19***	.22
1	Customers as Task Enrichment	.17***	.20
2	Total Leader Behavior	.23***	.29
1	Organizational Formalization	.15**	.21
2	Leader Instrumental Behavior	.13*	.24

*p < .05; **p < .01; ***p < .001

TABLE 20

COMPARISON OF LEADERSHIP AND POTENTIAL SUBSTITUTES' RELATIONSHIPS WITH CUSTOMER PERCEPTIONS OF SERVICE QUALITY (DEPARTMENT-LEVEL ANALYSIS WITH AGGREGATED DISPENSER DATA)

Criteria	Leadership		Potential Substitute	Significance of Difference	Description of Potential Substitutes' Effect
Customer Perceptions of Service Quality	Leader Supportive Behavior .15*	>	Customer Supportive Behavior .08	NS	Leadership has an effect, but potential substitute does not
	Leader Instrumental Behavior .20*	>	Customer Instrumental Behavior -.03	S	Leadership has an effect but potential substitute does not
	Total Leader Behavior .19*	>	Customers as Task Enrichment .15*	NS	Acts as a Supplement
	Leader Instrumental Behavior .20*	>	Organizational Formalization .16*	NS	Acts as a Supplement

*p < .05

correlates. Also, the leadership correlation exceeded (but not significantly) the customer correlation in all three pairwise comparisons. Finally, even after correcting for their relative unreliability, the Customer Supportive Behavior and Customer Instrumental Behavior scales did not correlate significantly with customer perceptions of service qualtiy. These adjusted correlations were r = .10, ns and r = -.04, ns, respectively.

In addition to customers as task enrichment, organizational formalization was the only other hypothesized substitute to correlate significantly with customer perceptions of service quality ($r = .16$, $p < .05$). The leader behaviors for which these two characteristics were hypothesized as substitutes also correlated significantly with the criterion; namely, total leader behavior ($r = .19$, $p < .05$) and leader instrumental behavior ($r = .20$, $p < .05$), respectively. Therefore, to determine whether customers as task enrichment and organizational formalization were substitutes, or only supplements, the hierarchical regression strategy was again followed. In both cases, the leadership beta weights were not significant (See Table 21). However, the beta weights for the two hypothesized substitutes were also not significant. Consequently, these two potential substitutes were best described as supplements, not substitutes. (That there were significant zero-order correlations between the hypothesized substitutes and the criterion, but the beta weights were nonsignificant, occurred because the correlations were based on more cases. That is, given there is pairwise deletion of cases in

TABLE 21

HIERARCHICAL MULTIPLE REGRESSIONS OF CUSTOMER PERCEPTIONS OF SERVICE QUALITY ON TWO POTENTIAL SUBSTITUTE AND LEADERSHIP COMBINATIONS

Step	Variables	Beta	Cumulative R
1	Customers as Task Enrichment	.12	.16
2.	Total Leader Behavior	.15	.22
1.	Organizational Formalization	.11	.17
2.	Leader Instrumental Behavior	.13	.20

NOTE: Beta weights are not significant

the correlation analysis, but listwise deletion in the regresson analysis, the regression analysis had a smaller number of cases. Since the correlations themselves were barely significant, the loss of additional cases in the regression analysis yielded nonsignificant beta weights).

Correlates of Department Rank: Department-Level Analysis with Aggregated Dispenser Data

Table 22 contains results for the relationships between department rank and aggregated Dispensers' perceptions of the Department Managers' leadership and the substitutes for leadership. None of the three leadership scales correlated significantly with the department rank criterion. However, two of the three customer scales were significant correlates: Customer Supportive Behavior ($r = .21$, $p < .01$) and Customer Instrumental Behavior ($r = -.23$, $p < .01$). Consequently, based on the classification strategy in Table 11, customer supportive behavior and customer instrumental behavior were said to act as substitutes for leaders' supportive and instrumental behavior when department rank was the criterion. Since the customer instrumental behavior correlation was significantly greater than the leader instrumental behavior correlation ($t = 2.48$; $p < .05$; two-tailed test), customer instrumental behavior was classified as a strong substitute. (Again, the implications of the negative sign for the customer instrumental behavior correlation will be considered in the Discussion Section). The difference between customer supportive

TABLE 22

COMPARISON OF LEADERSHIP AND POTENTIAL SUBSTITUTES' RELATIONSHIPS WITH DEPARTMENT RANK (DEPARTMENT-LEVEL ANALYSIS WITH AGGREGATED DISPENSER DATA)

Criteria	Leadership		Potential Substitute	Significance of Difference	Description of Potential Substitutes' Effect
Department Rankings	Leader Supportive Behavior .12	<	Customer Supportive Behavior .21**	NS	Acts as a Substitue
	Leader Instrumental Behavior .12	<	Customer Instrumental Behavior -.23**	S	Acts as a strong Subtitute, i.e., acts as a strong negative replacement
	Total Leader Behavior .12	=	Customers as Task Enrichment .12	NS	Neither the potential Substitute nor Leadership has an effect
	Leader Instrumental Behavior .12	>	Organizational Formalization -.03	NS	Neither the potential Substitute nor leadership has an effect

behavior's correlation with the criterion and the leader supportive behavior correlation was not significant. Lastly, neither

customers as task enrichment nor organizational formalization correlated significantly with the criterion ($r = 12$, ns, and $r = -.03$, ns, respectively).

Summary Comparisons of Customer versus Leader Influence upon Employee Attitudes and Performance

The last data analysis step outlined in the Methods involved comparing overall customer influence versus overall leader influence for each of the four criteria. This provided a test of the central, general hypothesis of the research: that customers may be a stronger source of influence in service organizations than leaders.

In this analysis, each criterion was regressed on two equations and the multiple Rs of the two equations were then compared. The one equation included all three customer scales (Customer Supportive Behavior, Customer Instrumental Behavior, and Customers as Task Enrichment) and, thus, provided a measure of customer influence overall. The second equation included the three aspects of leadership subsumed by the leader supportive behavior and leader instrumental behavior scales (support, role clarification, and specification of procedures). This equation, then, provided a measure of leader influence, overall.

The results of these overall comparisons are reported in

TABLE 23

COMPARISON OF CUSTOMERS' OVERALL RELATIONSHIP WITH CRITERIA
VERSUS LEADERS' OVERALL RELATIONSHIP WITH CRITERIA

Criteria	Customers' Multiple R		Leaders' Multiple R	Description of Overall Customer Effect
Job Satisfaction	.34***	<	.38***	Acts as a Supplement
Employee Perceptions of Service Quality	.30***	>	.27***	Acts as a Supplement
Customer Perceptions of Service Quality	.17	<	.18	Neither Customer nor Leader Behavior has an Effect
Department Rank	.28*	>	.12	Acts as a Substitute

[a]Simple regression on Customer Supportive Behavior, Customer Instrumental Behavior, and Customers as Task Enrichment.

[b]Simple regression on Leader Supportive Behavior, Leader Role Clarification and Leader Specification of Procedures.

*p < .05; **p < .01, ***p < .0001

Table 23. For two of the four criteria (employee perceptions of service quality and department rank) the multiple R for the customer equation exceeded the multiple R for the leader equation. The difference between the multiple R for leaders versus the multiple R for customers was insignificant in all four comparisons.

The overall effect of customers as a source of influence upon each criterion was classified according to the scheme presented in Table 11. For employee job satisfaction and employee perceptions of service quality, both the customer and leadership equations had significant multiple Rs. Consequently, the hierarchical regression strategy was followed to determine if customers, overall, could act as a substitute for the total influence of leadership, or only supplement it. For both criteria, then, the three customer scales were entered first in a regression equation, followed by the Total Leader Behavior scale. For both criteria, the beta weight for total leader behavior was significant (See Table 24). Thus, the overall effect of customers on employee job satisfaction and employee perceptions of service quality is best described as a supplement to leadership.

For customer perceptions of service quality, neither the customer scales, overall, nor the leaders, overall, produced significant multiple Rs. Again, that there would be significant zero-order correlations but nonsignificant multiple Rs reflects two factors: the fewer cases available in the regression analysis and the marginal significance of the zero-order correlations.

Finally, for department rank, the multiple R for customers

TABLE 24

HIERARCHICAL MULTIPLE REGRESSIONS OF EMPLOYEE JOB SATISFACTION AND EMPLOYEE SERVICE QUALITY PERCEPTIONS ON ALL THE CUSTOMER AND LEADER BEHAVIOR SCALES

Criterion	Step	Variables	Beta	Cumulative
Employee Job Satisfaction	1	Customer Supportive Behavior	.25***	.34
		Customer Instrumental Behavior	-.02	.34
		Customers as Task Enrichment	.09	.37
	2	Total Leader Behavior	.32***	.48
Employee Service Quality Perceptions	1	Customer Supportive Behavior	.23***	.28
		Customer Instrumental Behavior	-.01	.28
		Customer as Task Enrichment	.05	.30
	2	Total Leader Behavior	.24***	.38

***P < .001

was significant, whereas the multiple R for leaders was not. (The difference between the two multiple Rs was not significant.) Thus, customers, overall, do act as a substitute for leadership when department rank is the criterion.

Summary

In this section, the intercorrelations among variables were reported, as were results of correlational and regression analyses testing the hypotheses presented in the Introduction. Mixed support was found for the hypotheses. Generally, the results indicated that customers do seem to influence employee attitudes and performance, but they do not, for three of the four criteria, actually take the place of formal leaders' influence.

CHAPTER 4

DISCUSSION

The literature on organizations, from economics to organizational behavior, has paid little attention to the role of the customer in organizational behavior. Typically, the customer has been viewed as a relatively passive recipient of the outcomes of organizational behavior--filling the role of an independent, fleeting partner to certain market transactions with the firm. Certainly, some work suggests a more assertive role for customers; for example, viewing them as one of the organization's constituencies (Pennings and Goodman, 1977) whose interests must be respected. However, such a perspective fails to illuminate how customers influence the attitudes and performance of individual employees--particularly those in lower-level boundary-role positions. When the influence of customers upon these employees is considered, it is often depicted as a problem for the organization. In this vein, Aldrich and Herker (1977) warn of the negative consequences of employees overidentifying with customers. In sum, the literature has either ignored customers, described them as passive, or cautioned about the negative effects they may have upon employees when they do exercise influence.

In contrast to the above, this research examined whether customers might fill a more active and positive organizational role

by acting as "substitutes for leadership." The unique characteristics of service organizations, particularly, suggested that their customers might fill this role. In service organizations, customers frequently work with the boundary-role employees in the creation of the service. Furthermore, the simultaneous production and consumption of services that typifies many service organizations is the basis of salient and frequent complex social interactions between employees and customers. Together, these characteristics suggested a more active role for customers in the organizational behavior of the service sector than in the manufacturing sector.

Customers were considered to act as leaders in two possible ways. One, customers could simply take the place of leaders as the interpersonal source of instrumental and supportive behaviors that matters most to employees. Two, customers could shape the employees' perceptions of the presence of enriched task characteristics. In turn, enriched task characteristics have been hypothesized to be substitutes for leadership (Kerr and Jermier, 1978). Together, these possibilities suggested the general hypothesis that customers may substitute directly for the instrumental and supportive behaviors of formal leaders and indirectly by affecting the nature of tasks performed by employees. In this role, customers could be a strong source of influence upon the attitudes and performance of service organization employees. Specifically, the present research tested a number of hypotheses concerning whether formal leaders, customers, or organizational

formalization were the stronger source of influence upon boundary-role employees in a retail, eye-care chain.

The results revealed that employees' perceptions of the instrumental and supportive behaviors of both formal leaders and customers were significantly related to their attitudes, i.e., their job satisfaction and own service quality views. More precisely, perceptions of both customer supportive behavior and leader supportive behavior were positively related to employee attitudes, with the reports of customer behaviors being the stronger correlate for both attitudes (after correction for unreliability in the customer scales). For instrumental leadership, perceived formal leader behaviors were positively related to employee attitudes, but perceived customer behaviors were negatively related. Lastly, employee perceptions that customers are a source of enriched task characteristics were positively related to both employee attitudes.

The pattern of results involving customer perceptions of service quality and department rank differed depending upon which of the two criteria was considered. When customer perceptions of service quality was the criterion, employees' perceptions of formal leader behaviors correlated more consistently with it than did the employees' perceptions of customer behaviors. Indeed, Customers as Task Enrichment was the only customer scale to correlate significantly with the customer perceptions of service quality and it acted as a supplement to total leader behavior.

When department rank was the criterion, employees' perceptions of customer behaviors correlated more consistently with it than did the employees' perceptions of leader behaviors. Specifically, customer supportive behavior and customer instrumental behavior correlated significantly with department rank; but none of the formal leaders' behaviors did. Thus, these two customer behaviors were classified as substitutes for leadership. Finally, it should be noted that customer instrumental behavior was negatively correlated with department rank, as it was with the two employee attitude criteria.

In the comparison of overall customer influence versus overall leader influence (Table 23), the multiple R for customers exceeded (but not significantly) the multiple R for leaders for two of the four criteria: employee perceptions of service quality and department rank. For department rank, the multiple R for customers was significant and the multiple R for leaders was not. Thus, in this case customers, overall, were classified as a substitute for leadership.

These results can be summarized as follows: (1) When the measures of customers as a source of influence were significantly related to the criteria, they were more frequently classified as supplements than as substitutes for leadership. The one notable exception was customer supportive behavior and customer instrumental behavior acting as substitutes when department rank was the criterion. (2) In general, the customer scales were more consistently related to the individual-level attitude criteria,

i.e., employee job satisfaction and their service quality views, than it was to the department-level performance criteria, i.e., customer perceptions of service quality and department rank. At the department-level two of the three customer scales correlated significantly with the department rank; one with customer perceptions of service quality. At the individual-level all three customer scales correlated significantly with both employee attitudes. (3) Unlike the formal leaders' influence, not all of the customers' influence was positive. Specifically, customer instrumental behavior was negatively related to three of the four criteria.

Turning to the remaining tested substitute, organizational formalization, the results indicated that the conclusions drawn from the customer data were applicable to it, as well. That is, organizational formalization acted more as a supplement than as a substitute and was more consistently related to employee attitudes than to the department performance criteria.

The results can be discussed further by considering (1) what the customer-focused results suggest for designing and managing service organizations in which boundary-role employees are in contact with customers, and (2) the implications of the results for theory and research in leadership and substitutes for leadership. Part of the discussion here will consider the role played by organizational formalization and professional orientation in the present research.

The Implications of Customer Influence for Designing and Managing Service Organizations

The results involving the nature of customer influence can help inform emerging debate on managing customer participation in the service sector. This is evident in the following analyses of suggested service system designs.

One approach to managing customer involvement in the service sector is found in Chase's (1978) work in high versus low customer contact service operations. Chase's view was that the less direct contact the customer has with the service system, the greater the potential of the system to operate at peak efficiency. He defined customer contact as the physical presence of the customer in the system. Following Thompson's (1967) logic, Chase maintained that system efficiency would be enhanced if the "technical core" could be sealed off from environmental forces, i.e., customers. He advocated a system design that would minimize customer-contact in all, or at least some, of a service organization's operations.

Chase's theoretical work builds on a view of customers as a source of primarily negative outcomes for the organization. However, as the present results for customers as task enrichment and customer supportive behavior show, customer influence can be positively related to both employee job satisfaction and performance. Therefore, to seal employees off from customers and the supportive behaviors and task enriching qualities they offer

may be to remove an important and beneficial source of influence upon them.

Chase's argument to buffer the organization from the customer does, however, make sense when the focus is the instrumental behaviors of the customers, i.e., customers telling employees how to go about doing their job. Again, the instrumental dimension of customer behavior was negatively related to employee job satisfaction, employee perceptions of service quality, and department rank. Apparently, then, although it may not be desirable to totally seal off employees from customers, it may be desirable to at least screen them from certain customer behaviors, i.e., instrumental. Perhaps the organization could undertake interventions that would minimize the likelihood that customers would tell employees how to go about doing their jobs. The organization could, for example, better manage the impression given by employees that they do, indeed, know how to do their job--without the customer telling them what to do. This could possibly be done by having employees wear professional-looking smocks, displaying their opticianry degrees, printing signs emphasizing that employees of this organization are skilled professionals with excellent training, etc.

Another approach to designing the service system is what Levitt (1972; 1976) has termed the "industrialization of service." This refers to transferring modes of production developed by manufacturing operations to service operations. More specifically, Levitt argued for the use of machines, standardized procedures, and

narrow functional specialization in the design of service operations. He maintained this is the key to achieving the same low-cost reliable abundance in the service sector that has been realized in the manufacturing sector.

The present results indicate that following Levitt's proposals might also undermine the positive relationships found between customers enriching job characteristics and employee job satisfaction, employee perceptions of service quality, and customer perceptions of service quality. For example, service employees who perform only a narrow segment of the total service provided may be less likely to interact with customers who comment on their task significance, make requests that require a wide variety of skills to serve them, etc. To "industrialize service" may reduce cost, but it may also destroy a naturally occurring situation in which customers act as a source of enriched task characteristics that, in turn, are associated with important outcomes such as employee job satisfaction.

In sum, the above two approaches can be viewed as attempts to design away the naturally occurring and varied exchanges that may take place between employees and customers in the service system. The objective in both is to minimize costs/increase the efficiency of the service system. That particular outcome was not measured in the present research, so it is not possible to say how it would be related to the present customer measures. However, it can be said that if the system designs suggested by Chase (1978)

and by Levitt (1972; 1976) make it less possible for customers to display supportive behaviors toward employees or to enrich the tasks they perform, these may be systems in which both employee attitudes and performance suffer. In other words, they may be system designs that do not, in Parson's words, recognize ". . . the possibility and/or necessity of client contribution to the solidarity of the service system" (1970: p. 9).

The Issue of Selecting and Socializing Customers to Fill Prescribed Organizational Roles.

The fact that customers do appear to influence employee attitudes and performance raises the question of whether some "types" of customers will make more of a contribution than others. More precisely, are there certain characteristics that distinguish "contributing" customers from "non-contributing" customers? If so, the organization could then decide upon what sort of role it wanted customers to play in the service system and then select and/or socialize them accordingly. For example, one could say that the present organization should be interested in selecting and/or socializing customers (as substitutes) who display a 1 - 9 leadership style (Blake and Mouton, 1964)--low task-orientation, high person orientation.

One guide to customer selection is the study of Ouchi (1977) in which the income level of the customers of retail department stores was found to be a significant predictor of the control methods used by the organization. Ouchi speculated that higher income clients will, in general, be more likely than low-

income clients to impose their will on the salesclerk. Perhaps, then, lower-income clientele would be less likely than higher income clientele to try to exercise instrumental leadership over the employees of the present organization.

A recent study by Langeard, Bateson, Lovelock and Eiglier (1981) offers another suggestion as to how to identify customer "types" who are willing to perform on the organization's terms. They attempted to identify segments of the market population according to its willingness, or non-willingness, to participate in the service production process. Customers were asked to complete surveys in which they were confronted with a number of "service scenarios." These scenarios represented service usage at a bank, a gasoline service station, a hotel, a restaurant, and an outlet selling traveler's checks; in each instance, customers were presented a choice between less participative (full-service) and more participative (self-service) alternatives. For example, the bank scenario included the following question:

> It is 10 A.M. and you wish to withdraw $50 from your checking account. You have a credit card which would enable you to use an automatic teller machine or you could go to a human teller with your checkbook. So your choices are:
>
> Either use the automatic teller machine; or use the human teller.
>
> There are equally short lines of people waiting to use the machine and at the teller window.

Similarly worded questions were offered for the other scenarios.

Their results showed that customers can be segmented into

groups that have varying propensity to participate in the production of a service. Those individuals who were generally participative in all scenarios were somewhat more likely to be younger, male, and more educated, to be impatient and to dislike waiting in line, and to like to play with machines more than those in the non-participative segment (Langeard et al., 1981). The researchers urged continued research on finding people who have a preference for a high level of participation and then identifying their demographic or psychological characteristics.

The market segmentation approach of Langeard et al. (1981) could be used in the present case to identify customers who are not interested in exercising instrumental leadership over employees. For example, the following type of question could be included as part of a more far-reaching customer survey:

> You are in the department to have your eyes checked and to get glasses and/or contacts if need be. In dealing with the employees of the department, would you be more comfortable:
>
> Having the person working with you make most of the decisions about what your needs are and how to meet them
>
> or
>
> Making most of the decisions, yourself, and informing the employees of what you think needs to be done and how to go about doing it.

Customer responses to this question could be <u>one</u> basis upon which the organization selected the customers they were more interested in retaining as repeat business.

Of course, many for-profit service organizations will not be able to afford selecting customers in so discriminating a

manner. It may be more feasible for the organization to select nearly all customers attracted to it and to then attempt to socialize them to become the type of customer desired. The organization might use behavior modelling (Goldstein and Sorcher, 1974) to demonstrate what kinds of customer behavior, e.g., supportive, leads to customer rewards, e.g. prompt, courteous attention, and also what kinds of customer behavior, e.g. instrumental, leads to negative outcomes for the customer, e.g. being ignored. For a model, the organization could use either an employee, posing as a customer, or it could hire a "trained" customer to display the desired behaviors. This socializing effort, in combination with the earlier suggestion to better manage the impression that employees know what to do without being told, may help restrain customers from displaying instrumental behavior.

In sum, different approaches to selecting and socializing customers can be attempted to better manage the customers' contribution to the solidarity of the service system. In this context, managers can be viewed as simultaneously managing employee and customer behavior. Thus, the organization can make strategic choices between selecting and socializing (training) employees and/or customers as a means to individual and organizational effectiveness. For example, the organization can choose between socializing customers not to engage in instrumental behavior and/or training employees to ignore or cope with customers when they do.

The Implications for Theory and Research in Leadership and Substitutes for Leadership

A number of implications for research in leadership and on the substitutes construct are suggested by the present results.

Explaining the Negative Correlations Involving Customer Instrumental Behavior.

That the significant correlations between customer instrumental behavior and employee attitudes were negative, while the comparable correlations for leader instrumental behavior were positive, cannot be described within the present conceptual bounds of the substitutes construct. Customer instrumental behavior did not make it effectively impossible for leadership to have an effect--the definition of a neutralizer offered by Kerr and Jermier. Neither did it make it impossible and unnecessary for leadership to have an effect--the Kerr and Jermier definition of a substitute. Finally, neither does it seem to be properly labeled as a "supplement" to leadership--a characteristic that fills in for leadership as the situation dictates (Howell and Dorfman, 1981a); the supplement definition implies a positive contribution. Instead, customer instrumental behavior had a significant negative effect on employee attitudes without preventing a positive leadership effect. In brief, both leader and customer instrumental behavior effectively "led" the employee, but in opposite directions.

The negative correlations between customer instrumental

behavior and employee attitudes emphasizes that there are non-leader characteristics which affect employee outcomes, but that still allow leadership to have an effect and, indeed, make it all the more necessary that it does. In these terms, leader instrumental behavior must provide a countervailing effect to that produced by customer instrumental behavior if employees are to be satisfied. Thus, total influence on employees is not some combination of the positive contributions of leadership, substitutes, and supplements as might be assumed in reading works on substitutes for leadership. Instead, one must also take into account the negative countervailing effects of characteristics such as customer instrumental behavior.

The present results also call into question what can be termed the "influence is a zero-sum game" assumption of the substitutes construct. That is, the substitute construct seems to assume that employees will rely upon one or another source of influence, but not both. The question here is why not both? Why must one "take the place of" the other? The fact that more supplements than substitutes were identified in both this research and by Howell and Dorfman (1981a; 1981b) suggests that influence is not a zero-sum game; that employees do not necessarily choose between sources, but rather may be influenced by both.

The negative role played by customer instrumental behavior, however, suggests a finer distinction be made regarding this assumption. Perhaps supportive influence is not a zero-sum game, but instrumental influence is. Perhaps employees cannot get enough

support, and thus it is more likley that research will yield more supplements (positive) to supportive leadership than substitutes for it. That is, there may be no limit to the amount of supportive behavior subordinates find rewarding or to the number of sources that can provide it. On the other hand, perhaps employees consider instrumental behavior a zero-sum game, and consequently, it is more likely that substitutes, neutralizers, and countervailing effects will be found for leader instrumental behavior--with the nonleader sources of instrumental leadership being negatively correlated with the employee outcomes. That is, there is likely a fixed amount of direction subordinates can experience without also experiencing overload or conflict. Thus, as employees attempt to keep their degree of instrumental influence within fixed limits, different possible sources may take one another's place, cancel one another out, or balance the positive and negative effects of one another.

In the case of department rank, these conclusions need to be considered against a pattern of results different from those for employee attitudes. Here, both customer behaviors were significantly related to the criterion, but the leader behaviors were not. These findings might suggest that employees made clear zero-sum choices between sources for both instrumental and supportive leadership. However, note that the signs of the customer instrumental behavior and leader instrumental correlations were opposite, and the difference between the positive correlations

for both customer supportive behavior and leader supportive behavior was not significant. Thus, these results might also suggest that instrumental influence is a zero-sum game and supportive influence is not.

Finally, one can look within any one source of influence--rather than between two different sources--to see if for that particular source exerting influence is a zero-sum game. The present results indicated that formal leaders could simultaneously display both supportive and instrumental behavior ($r = .38$, $p < .001$); thus, for leaders influence is not a zero-sum game. Customers, however, apparently can only exercise leadership as a zero-sum game. For them, supportive and instrumental behavior was negatively correlated ($r = -.29$, $p < .001$), i.e., the more customers display of one dimension, the less they can display of the other.

Leadership, Substitutes, and Supplements: Alternative Methods of Influencing Employee Attitudes and Performance

Rather than looking at substitutes as sources that negate a leader's influence, it may be more appropriate to view them as alternative methods of providing employees guidance and support that leaders can deliberately choose to use in place of their interpersonal influence. In this view, substitutes for leadership would make leadership unnecessary, but not "impossible and unnecessary" (or, if impossible, by choice). When substitutes are thought of in this way, they represent additional, rather than fewer, degrees of freedom available to formal leaders in choosing

how to influence employee attitudes and performance.

The significant correlation between leader instrumental behavior and organizational formalization (r - .42; p. < .001) is evidence, possibly, of this revised view of the substitutes construct. One possible explanation of this relatinship is that leaders in this organization initiate task structure by developing written guidelines, schedules, etc. to guide the employees' work. If this explanation is valid, then even if organizational formalization had been significantly correlated with a criterion and instrumental leader behavior had not, it would be inappropriate to think of organizational formalization as making instrumental leadership "impossible and unnecessary." Instead, leaders are more more properly viewed as choosing to relinquish interpersonal instrumental leadership, developing organizational formalization as a supplement, or even substitute, for it. In this sense, the effective leader is one who personally guides the employee's work or develops non-leader characteristics that do so. Or, put in perhaps a better way, the good superior/manager is one who guides the employee's work through personal leadership and/or substitutes for leadership.

Leadership and substitutes for leadership present management a mix of alternative methods to choose from in attempting to influence employee attitudes and performance. In the present organization, this suggests management should consider the following mixes: what combination of leader instrumental behavior and organizational formalization is most effective, and what

combination of leader supportive behavior, customer supportive behavior, and customers as task enrichment is most effective. To the degree the organization chooses to rely upon customers as substitutes or supplements for leadership, effective management in this organization will require building in the desired amount of customer contact and selecting and/or socializing the desired "type" of customers.

A scenario that would capture this mix of influence considerations would be when management felt it wanted to respond to the negative correlation between customer instrumental behavior and department rank. Management could consider the following interventions: organizational and task redesign to seal employees off from customer instrumental behavior, socializing customers to limit their instrumental behavior, and/or training leaders to exercise their instrumental leadership more effectively so as to provide a contervailing effect to customer instrumental behavior. Again, effective management consists of choosing between leadership and possible substitutes of leadership.

The mix of leadership and substitutes for leadership that management chooses to use as sources of influence will be effective only if the employees, themselves, agree to make similar choices among the possible sources of influence to which they will respond. That is, the employees, as well as management, have degrees of freedom to play with in deciding what mix of leadership and substitutes for leadership they will use as sources of support and

guidance. Some possible sources of influence, e.g. customer instrumental leadership, may not be viewed as acceptable or satisfying to employees. It is in attempting to produce a match between the choices of management and employees that the role of "neutralizers" (factors that make leadership impossible) becomes particularly important. For example, an employee's indifference toward organizational rewards (see Table 1) is a characteristic that Kerr and Jermier (1978) said likely acts as a neutralizer. In the present context, it can be viewed as an employee characteristic that may make it impossible--or certainly hinder--management's attempts to exercise influence through either leadership or substitutes for leadership.

How Can an Organization Decide Upon the Best Mix of Leadership and Possible Substitutes for Leadership? Since in the present study both leadership and non-leader characteristics were related to employee attitudes and performance, it would be helpful to the organization if it had some guidelines to follow in deciding to what degree one should be emphasized relative to the other. More generally, how can an organization systematically consider the sources of influence on which it should rely?

One consideration that should guide the organization's choices involves essentially an effectiveness versus efficiency question. A source of influence is effective if it is positively related to employee attitudes and/or performance. A source of influence is efficient to the degree it realizes a positive outcome with a minimal amount of input, e.g. if customers only had to

display a small amount of supportive behavior for employees to be satisfied. The principal focus of this study and the earlier work by Howell and Dorfman (1981a, 1981b) was in finding what leadership dimensions and non-leader characteristics were significantly related to certain employee outcomes; i.e., the effectiveness of different sources. This focus should be broadened to also include an analysis of which sources, leader or non-leader, produce their effects most efficiently. This would help guide managers in choosing the most parsimonious combination of sources for influencing employees.

There are a number of ways the organization can approach the efficiency question. One possibility would be to individually look at what could be termed the "influence ratio" of each source. The influence ratio (IR) can be thought of as essentially an input/output ratio consisting of the influence source mean divided by the employee outcome mean (assuming sources are measured by scales with an identical number of response points, thus making their means comparable). In this study, for example, where both leader and customer supportive behavior were effective in influencing job satisfaction, the IR of each source could be compared to give some indication as to which source was more efficient. Specifically, the IR for leader supportive behavior would be 1.00 (2.08 / 2.09; from Appendix B) and the IR for customer supportive behavior would be 1.12 (2.33 / 2.09; from Appendix B). The lower value for customer supportive behavior

suggests that it is a relatively more efficient source of influence than leader supportive behavior.

Rather than simply examining the efficiency of one source versus another, one could also empirically compare the efficiency of one set of sources versus various subsets of those sources. That is, the organization may want to examine a series of "full" versus "reduced" regression equations to determine which combination of sources is the most efficient in producing a desired significant effect. This data analysis strategy was used by Kerr and Jermier (1978) in their test of the substitutes construct.

Examining the relative efficiency of different sources would also require that the costs associated with the "use" of one source or the other also be considered. For example, is it less costly to train a leader in instrumental behaviors or to develop written guidelines, etc.? Is it less costly to train leaders in supportive behaviors or to design the organization in a way that employees can be in contact with the supportive behaviors and enriching job characteristic qualities of customers?

Finally, the ultimate key to understanding both the relative effectiveness and efficiency of different sources lies in achieving a better understanding of why employees choose among different sources the way they do. The research focus, then, should be less on developing criteria by which we, as researchers, label a source as leadership, substitute, supplement, etc. and more on trying to identify the criteria employees, themselves, use, as the basis for their different responses to a variety of influence

sources. Ideally, models could be developed that could simultaneously explain why any given source, leader or non-leader, is likely to have a leadership, substitute, neutralizer, supplement, or countervailing effect. If the effects of different sources could be assessed within a common model, this could help managers determine the relative effectiveness of alternative methods and what mix of methods would be most successful.

Model-building of this kind can start with conventional models of leadership effectiveness. These models, naturally, attempt to explain how leaders can be a source of influence. However, the point here is that one can have some other source, e.g. customers, substitute for the leader in the model, but still use the model's propositions to explain what influence, if any, the substituted source might exercise. For example, path-goal theory (e.g. House and Mitchell, 1974) can be used to offer a post-hoc explanation of the differing effects of leader behavior versus customer behavior upon employee job satisfaction. Recall that the supportive behaviors of both leaders and customers were positively related to employee job satisfaction whereas leader instrumental behavior was positively related but customer instrumental behavior was negatively related (See Table 14).

Turning to path-goal theory, itself, two of its principles are particularly relevant to an analysis of these results. First, the theory proposes that leader behavior is acceptable and satisfying to subordinates to the extent that they see it as either

an immediate source of satisfaction or as instrumental to future satisfaction (House and Baetz, 1980). Second, leader supportiveness can be, in and of itself, immediately rewarding (Evans, 1970). It seems reasonable that both leaders as well as customers can be the source of support that the second principle states employees find immediately satisfying. Thus, the positive relationships for both leader and customer supportive behavior.

The different relationships for leader instrumental behavior versus customer instrumental behavior can be explained in terms of the first principle. Leader instrumental behavior may, if allowed by employees, lead to organizational rewards, e.g. pay, and thus be a source of extrinsic satisfaction. Customer instrumental behavior, however, is less likely to be perceived as potentially leading to this type of extrinsic satisfaction nor to intrinsic satisfaction. Therefore, customer instrumental behavior is likely to be neither acceptable nor satisfying to employees. In sum, path-goal theory suggests that whereas leaders may be perceived as a source of both intrinsic and extrinsic satisfaction (with positive contributions made by both their supportive and instrumental behaviors), customers may be perceived as a source of only intrinsic satisfaction (with a positive contribution made by only their supportive behavior).

Fiedler's Contingency Theory (1967) is another leadership model that can be used to explain both leader and customer effects. The dimensions of situation favorableness can be examined to see if the situation makes the exercise of influence easier for the formal

leader or the customer. For example, the customer's ability to influence employee job satisfaction was likely enhanced by favorable "leader (customer)-member" relations reported by both department employees and customers in the interviews. These good relations likely reflect the earlier-stated assumptions that employees entering face-to-face service roles are psychologically close to their customers. However, since customers lack "position power," or what Fiedler (1971) terms "fate control" over employees, the situation, overall, favors the influence of formal leaders over customers. This is evident, again, in the differing outcomes for leader instrumental versus customer instrumental behavior. Since only formal leaders, not customers, are in a position to dispense performance contingent organizational rewards, employees may find satisfaction in doing as they are told by leaders, but not by customers.

In sum, path-goal theory and Contingency Theory demonstrate how conventional models of leadership can help explain the effects of both leadership and possible substitutes for leadership. In the present case, they were particularly useful for suggesting that only the instrumental behavior of the leader will be acceptable and satisfying to employees because only leaders control organizational rewards. Interestingly, Kerr and Jermier (1978) proposed the "organizational rewards not within the leader's control" will tend to neutralize <u>both</u> supportive and instrumental leadership (see Table 1). The results, however, indicate that when customers are

the source, supportive behavior remains a positive influence—even though customers do not control organizational rewards. The path-goal theory principle that support can be an immediate source of satisfaction apparently overrode Kerr and Jermier's belief that lack of control over organizational rewards will neutralize both dimensions of leadership. The situation for customers probably holds for leaders, as well. That is, a formal leader's supportive behavior would not tend to be neutralized by lack of leader control over organizational rewards, provided good leader-member relations exist (as was true with customers!).

Finally, this section of the discussion emphasized the value of using common frameworks to assess the relative effects of leader and non-leader sources of influence. It demonstrated that an answer to House and Baetz's (1979) call for a better understanding of how factors operate as substitutes for, or neutralizers of, leadership is to rely upon conventional models of leadership, themselves, to explain the effects of a variety of leader and non-leader sources.

Some Suggestions for the Choice of Methods and Variables in Future Research on Substitutes for Leadership

Future research on the substitutes construct should attempt to assess leadership, the potential substitutes, and the criteria using different methods for each. This would overcome the two ways in which common method bias affected the present results. First, common method bias likely increased how strongly leadership and the

substitutes were related to employee attitudes, relative to the strength of their relationship with the department performance criteria. For the correlations involving employee attitudes, the measures of leadership, substitutes for leadership, and attitudes all came from a single source, the self-reports of employees. Thus, the consistency effect typically found in such percept-percept measurements likely played some role in producing the consistently significant relationships found for employee attitudes. On the other hand, common method bias obviously could not inflate the relationships with the department criteria. Here, measures external to the employee were used--customer perceptions of service quality drawn from the customer data and department rank provided by the management of the company. When these performance measures were the criteria, there were fewer significant correlations and the correlations, overall, were lower.

The second way the percept-percept measures may have affected the results involves the correlations between the leadership and potential substitute scales, themselves. That is, not only does percept-percept bias affect how leadership and/or potential substitutes will be related to different criteria, it also increases the likelihood that leadership and the substitutes will be related to one another. Consequently, this consistency effect increases the probability that when perceived leader behaviors are present, perceived substitute influence will be present, as well. In other words, percept-percept bias works against finding that a given characteristic actually "takes the

place of," i.e., substitutes, for leadership. This helps explain why in this study and the earlier studies by Howell and Dorfman (1981a; 1981b) supplements were more readily found than substitutes.

Another important direction for future research is to follow Kerr and Jermier's (1978) recommendation to identify other non-leader sources and other dimensions of leadership that influence employees. The present research identified a possible new substitute, customers, but relied upon the two dimensions of leadership most frequently studied, i.e., supportive and instrumental behaviors. These two leader behaviors were the central focus of the observation by researchers that leadership variables continue to account for only a small portion of the criterion variance in most empirical studies (Howell and Dorfman, 1981a; Kerr and Jermier, 1978; Osborn and Hunt, 1975). The lack of strong leader-criteria relationships is particularly evident when instrumental behavior is the leadership variable and/or performance measures are the criterion.

In a sense, then, the relatively modest results of this empirical study--the relatively low magnitude of the correlations--very likely reflect the theoretical beginnings of the substitutes construct. That is, the interest in substitutes was spurred by weak results for the supportive and instrumental behaviors of leaders and the present study, in retrospect, could be described as trying to find substitutes for two behaviors that do not seem to

matter a great deal to begin with. Consequently, it may be that to whatever degree customers do act as substitutes for supportive and instrumental leadership, they may be expected to only weakly relate to employee outcomes.

Clearly, other dimensions of leadership, and substitutes for them, must be identified that more strongly relate to criteria of interest. The limited research on substitutes has focused on whether instrumental and supportive leadership or their substitutes bear the stronger relationship to criteria. This focus on which is the stronger, i.e., do non-leader characteristics neutralize, substitute, or supplement leadership, should not obscure the more important need to focus on finding the strongest correlates of employee outcomes.

One possible starting point for identifying other dimensions of leadership is Yukl's (1981) identification of nineteen categories of leader behavior, in addition to the supportive and instrumental dimensions. Some of them, e.g. goal setting and work facilitation, may relate more strongly to performance than do the supportive and instrumental dimensions typically studied. Certainly, the way leaders set goals has been shown to be consistently related to employee performance (Locke, Shaw, Saari, and Latham, 1981). Also, the leader facilitating the work of employees, e.g. making certain employees have the resources they need to reach their work goals, has been found to be positively related to how customers view the quality of service they receive (Schneider and Bowen, 1983).

If leader behaviors such as goal-setting and work facilitation are the dimensions of leadership that really matter (i.e., that relate to performance), then they deserve the same extensive research effort that has been focused on instrumental and supportive leadership. More comprehensively, substitutes for these significant dimensions of leadership need to be identified, as well. For example, in the present context customers could be a source of work facilitation by providing employees the necessary information about the condition of their eyes, their tastes in frames, etc. that employees need to do their job. If management could find ways of encouraging customers to share this information, then they would not have to concentrate so much, themselves, on trying to describe to employees the different needs and desires of different market segments of customers.

Finally, more work is needed to identify characteristics of the individual that may be sources of influence in addition to the task, organizational, and extra-organizational characteristics already identified as influential. That is, the preceding studies (Sheridan et al., 1981; Howell and Dorfman, 1981, 1981b; Kerr and Jermier, 1978) and the present research have established as sources of influence: task characteristics, including the degree to which they are intrinsically satisfying and/or routinized; organizational characteristics such as organizational formalization; and extra-organizational characteristics, including customers. However, the preceding studies and the present research have not found either

"professional orientation" or "ability, experience, training, knowledge" (characteristics of the individual in Table 1) to be a substitute or even supplement for leadership.

Future work on individual characteristics might: (1) Develop a more internally consistent measure of professional orientation. Its reliability of .44 in this study and that of .51 in the Howell and Dorfman (1981a) study makes it clear the construct requires further specification. (2) Consider assessing professional orientation more as a neutralizer than as a substitute. Again neutralizers are a type of moderator variable when uncorrelated with both predictors and the criterion, and act as a suppressor variable when correlated with predictors, but not the criterion. In both this study, and in Kerr and Jermier (1978), professional orientation was more strongly significantly correlated with the other predictors than it was with the criteria. Empirically, then, this suggests a neutralizer role for professional orientation--although further analysis and specification of its role was precluded by its low scale reliability. Conceptually, it would make sense that a professional orientation might make leadership more impossible than unnecessary. Indeed, only if the organization's top management, itself, had a professional orientation would an individual employee's professional orientation act as a substitute for leadership. (3) Additional individual-level characteristics that might act as substitutes for leadership need to be tested. Possibilities could include the role of self-management (Manz and Sims, 1980) as a

substitute and the importance of a Protestant Work Ethic, i.e., finding hard work, in and of itself, satisfying.

Two final directions for future research can be mentioned that build directly upon the present results. One would be to identify substitutes, in addition to customers, that can be a source of both positive and negative influence upon employees. Second, would be to explore in what kinds of service organizations the present results would differ. That is, are there service organizations in which customer instrumental behavior may be positively related to employee outcomes? Are there service organizations in which the magnitude of customer influence may be greater than that found for the present organization? Answering these quetions can help managers better influence employee and customer behavior in the service sector.

Conclusion

This study examined the different leader and non-leader sources of influence upon the attitudes and performance of boundary-role employees of service organizations. A central focus was how the unique characteristics of service organizations, e.g. customer involvement in the creation of a service, might result in customers acting as a substitute for leadership. The results indicated that although customers did not act as substitutes for leadership, they did influence employees to a similar or greater degree than formal leadership, organizational formalization, or a

professional orientation.

Two concluding observations can help summarize the research. The first involves the relatively modest magnitude of the results. The real significance of the results lies in their directing attention to how customers can affect the quality of the employees' work experience. That is, they emphasize the importance of viewing customers not just as recipients of organizational outcomes, but as contributors to employees' work experiences. This represents an immodest change from how the customer's role has typically been studied. Furthermore, the organization, itself, can pursue strategies to decrease or increase the magnitude of the significant results attributable to customers as a source of influence. For example, organizations might diminish customer influence by "buffering" (Chase, 1978) employees from them. On the other hand, organizations might try to increase the magnitude of the customer's influence by using them as a source of information in appraising employee performance. In effect, this would place in the customers' hands some control over organizational rewards. In turn, this might alter both the strength and direction of the influence of customer instrumental behavior. In sum, the results can be interpreted as indicating that customers do, indeed, play a significant role in service organizations and it is partly management's choice to decide upon the magnitude of that role.

The second summary observation is that the results underscore the idea that both employees and the organization have considerable degrees of freedom available for choosing the sources

of influence on which they will rely. The different sources of influence do not so much take the place of one another as they offer supplemental and countervailing effects to one another. It becomes management's task to decide which combination of leadership and potential substitutes for leadership will influence employees most effectively and efficiently. In turn, this decision can benefit from understanding how employees, themselves, choose among alternative sources. Finally, this process of trying to produce a match between the organization's and employee's mix of sources can be guided by using conventional leadership models to assess the effects not only of leadership, but of possible substitutes for leadership as well.

APPENDICES

APPENDIX A

FORMULAS CITED

Note 1: the James, Wolf, and Demaree (1981) formula for assessing within-group interrater reliability:

$$r_{wg} = 1 - (S^2_x / \sigma^2_e)$$

where:

r_{wg} = within-group interrater reliability for a single group of raters who have rated the same target

S^2_x = the observed (error) variance on variable X among the raters within a given group

σ^2_e = the variance on X that would be expected if the raters responded randomly, which is estimated by $(A^2 - 1) / 12$ for a discrete, uniform distribution and A = number of response points on the rating scale.

Note 2: Guilford's (1954) centile position formula used in making rankings comparable across groups, given differences in numbers of things ranked within groups:

$$P = \frac{(R_i - .5)\ 100}{n}$$

P = centile value

R_i = rank value

n = number of things ranked

Note 3: Hotelling's (1940) formula for the significance of the difference between correlated coefficients of correlation

$$tdr = (r_{12} - r_{13}) \sqrt{\frac{(N - 3)(1 + r_{23})}{2(1 - r_{23}^2 - r_{12}^2 - r_{13}^2 + 2r_{23}r_{12}r_{13})}}$$

where:

tdr = t-test value of the difference

r_{12} = correlation between criterion and one prediction

r_{13} = correlation between criterion and a second predictor

r_{23} = correlation between the two predictors

N = lowest number of cases for any of the three correlations

Note 4: Sympson's (1979) formula for the significance of the difference of two multiple Rs, where the predictors in the two regression equations are mutually exclusive.

$$Zd = \frac{[MSE - MSE]}{\left[\frac{SSE_1 + SSE_2}{2(N-1)-P_1-P_2}\right]\left[2\left(\frac{1}{N-P_1-1} + \frac{1}{N-P_2-1} - \frac{2r(e^2_{i1}, e^2_{i2})}{[(N-P_1-1)(N-P_2-1)]}\right)\right]^{1/2}}$$

Zd = test statistic for standardized normal distribution

MSE = Mean Squared Error

SSE = Sum of Squared Criterion Residuals

N = Sample size

P = number of predictors

$r(e^2_{i1}, e^2_{i2})$ = correlation between squared residuals

Note 5: Nunnally's (1978) formula for estimating the correlation between two variables after adjusting the reliability of one of the variables by a certain amount:

$$\bar{r}_{12} = r_{12} \sqrt{\frac{r'_{11}}{r_{11}}}$$

where:

$\bar{r}_{12}$ = estimated correlation after adjusting reliability of one of the variables

r_{12} = observed correlation before adjustment

r'_{11} = adjusted reliability of the variable

r_{11} = observed, unadjusted reliability of the variable

APPENDIX B

MEANS AND STANDARD DEVIATIONS OF VARIABLES AT THE INDIVIDUAL-LEVEL WITH ALL EMPLOYEES

	Variable	Mean	Standard Deviation
1.	Leader Supportive Behavior	2.08	.79
2.	Leader Instrumental Behavior	2.58	.55
3.	Total Leader Behavior	2.52	.48
4.	Customer Supportive Behavior	2.33	.64
5.	Customer Instrumental Behavior	3.85	.69
6.	Customers as Task Enrichment	11.05	2.25
7.	Professional Orientation	3.15	.80
8.	Organizational Formalization	2.75	.61
9.	Employee Perceptions of Service Quality	2.61	.74
10.	Employee Job Satisfaction	2.09	.54

LIST OF REFERENCES

APPENDIX C

MEANS AND STANDARD DEVIATIONS OF ALL VARIABLES AT THE DEPARTMENT-LEVEL WITH AGGREGATED DISPENSER DATA

	Variable	Mean	Standard Deviation
1.	Leader Supportive Behavior	1.90	.74
2.	Leader Instrumental Behavior	2.64	.69
3.	Total Leader Behavior	2.48	.55
4.	Customer Supportive Behavior	2.40	.61
5.	Customers as Task Enrichment	3.77	.63
6.	Professional Orientation	11.28	2.17
7.	Organizational Formalization	2.92	.53
8	Customer Perception of Service Quality	2.55	.49
9.	Department Rank	.25	1.02

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