The Purchasing Manager's Interdepartmental Influence in Chemical Industry Purchasing Decisions

by

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Abstract

THE PURCHASING MANAGER'S INTERDEPARTMENTAL INFLUENCE IN CHEMICAL INDUSTRY PURCHASING DECISIONS
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The purpose of this research was to better understand the influence process and the factors contributing to its efficacy. Conceptual and methodological issues associated with power/influence research were discussed. A review of the literature indicated a need to integrate conceptual approaches as well as focus on specific influence encounters.

A process model of interpersonal influence was presented focusing on dyadic influence. The model included the determinants of influence propensity, the evaluation of resources and alternative means of influence, the selection of an influence strategy, and influencing behaviors (issuing a directive, reasoning, and using resources).

The model was tested in the context of vendor selection for purchase decisions which were in the process of being determined. The sample consisted of 100 purchasing professionals from 21 large firms in the chemical and allied products industry. All participating firms were spatially dispersed corporations with yearly chemical sales exceeding $200 million with a mean of $3.9 billion. Subjects were personally interviewed regarding their potential influence over the vendor preferences of

decision participants from other departments. A follow-up survey, administered by mail three weeks after the interview, focused on the means of influence used and their effectiveness.

Through hierarchical regression, influence propensity was found to be a function of two-way interactions among the need for power, perceived benefits, influence norms, and perceived decision outcome risk. Specifically, the degree of perceived benefits interacts with influence norms while the need for power interacts with perceived decision outcome risk. An analysis of the interactions revealed that all four determinants can have a positive, negative, or no impact on influence propensity. Interactions contributing to influence propensity in a positive direction are high benefits with weak norms, low benefits with strong norms, a high need for power with low perceived decision outcome risk, and a low need for power with high perceived decision outcome risk.

In evaluating resources for use as a means of influence, the results of a hierarchical regression analysis indicated that the greater the influencee's dependency on the purchasing manager for a given resource, the greater the expected influence. The strength of this effect is contingent upon the probability of the influencee selecting the influencer's preferred vendor in the absence of an influence attempt. Specifically, the greater this probability, the greater is the contribution of resource dependency to expected influence.

When evaluating influence strategies, hierarchical regression confirmed that the greater the influencee's aggregate resource dependency, the greater the purchasing manager's expected influence from both issuing a directive and using resources. Aggregate resource dependency however, was not found to be a predictor of expected influence from reasoning. In selecting an influence strategy, a regression analysis indicated that consideration is given to cost-effective approaches.

In terms of attempted influence, the results of a hierarchical regression analysis revealed that the greater the number of influence approaches used, the greater the interpersonal influence. The strength of the relationship is contingent upon the probability of the influencee selecting the influencer's preferred vendor in the absence of an influence attempt. Specifically, the greater this probability, the weaker is the relationship between the number of influence approaches used and interpersonal influence.

Limitations of the study include its focus on a single type of decision over a limited period of time from the perspective of the purchasing manager as influencer. Also, factors beyond the influencer's control may have contributed to a change in the influencee.

Future research should strive toward replicating the findings, further refining the methodology, determining the extent of the results' generalizability, and expanding understanding of the influence process.

Table of Contents

Chapter Page

List of Tables

List of Figures

Chapter I

The Concept of Influence

Upon reviewing the research on power, Dahl (1957: 201) commented that in view of the extensive treatment this topic has received, the relative lack of substantive findings has prompted many cynics to consider its study to be a "bottomless swamp." Dahl noted however, "...if so many people at so many different times have felt the need to attach the label power, or something like it, to some Thing they believe they have observed, one is tempted to suppose that the Thing must exist; and not only exist, but exist in a form capable of being studied more or less systematically" (1957: 201).

Research on power and influence continue to be hindered by difficulties in measurement (Bachrach & Baratz, 1962; Bell, 1969; March, 1955; Provan, 1980; Simon, 1953) and conceptualization (Barnes, 1988; Cartwright, 1959; Clegg, 1989; Danzger, 1964; Gallie, 1955-1956; Goldman, 1972; Martin, 1977; Wrong, 1968). The latter has been especially troublesome given the presence of similar, overlapping concepts such as "persuasion," "leadership," and "politics." In this study, "influence" will serve as the generic label based on prior assertions that it is the most general of these concepts (Banfield, 1961; Dahl, 1963; Lasswell & Kaplan, 1950; Schermerhorn, 1961; Wrong, 1979).

A third hindrance to influence research has been the

segmentation of concepts based on potential versus actual behavior. Power research tends to focus on identifying resources which give its possessor the potential to alter the behavior of another (Etzioni, 1961; French and Raven, 1959; Finkelstein, 1992; Raven & Kruglanski, 1970). It is implied that such resources will ultimately be converted into influence such that the greater the accumulation of resources, the greater the potential to alter someone's behavior, and the greater the subsequent change in the target. Yet, in reality, controlling scarce resources does not necessarily result in the powerholder getting his/her own way. As noted by Dahl (1968), consideration should also be given to the powerholder's motivation to use power and skill in enacting power. Another determining factor is the ability to appraise a situation and determine which resources will have the greatest efficacy. Conversely, influence research tends to focus on behavior at the exclusion of potential. Such research asks subjects to identify behaviors which have resulted in influence (Falbe & Yukl, 1992; Kipnis & Schmidt, 1988; Kipnis, Schmidt, & Wilkinson, 1980; Yukl & Falbe, 1990). This approach is also limited in that it assumes that all influencers have the same resources at their disposal.

The purpose of this study is to analyze the gap between the potential to alter someone's behavior and the actual act. A model will be proposed and tested asserting that influence outcome is a function of the motivation to

influence, the evaluation, selection, and use of controlled resources, and the influence act. It is this transformation of potential into action which has been generally neglected. This research will also be useful for practitioners seeking to better utilize their power base.

Influence and Its Properties

Theorists have yet to develop a universally accepted definition of influence or agree upon its properties. For the purpose of this research, influence will be defined as a relationship between A and B in which A alters the probability of B selecting a particular decision alternative. Given the importance of this term to the study and the absence of a standard definition of influence, it is useful to discuss the properties of influence as specified by previous researchers. This not only clarifies the above definition, but also links it to prior conceptualizations.

Influence as a Relation. Friedrich noted in his discussion of power that many past political theorists such as Hobbes, Harrington, Montesquieu, and Hamilton, spoke of power as a possession, "...to have and to hold, and maybe to sit upon like a bag of gold" (1963: 160). While Friedrich acknowledged that in a limited sense, power may be attached to a thing, it essentially refers to a relationship among people. Likewise, Bachrach and Baratz (1970: 19) maintained that power does not exist in

a vacuum, but only in relation to someone else, while Simon (1953: 502) argued that power defined in terms of values possessed ceases to be an empirical proposition.

So too in this study, influence is conceptualized as occurring within the context of a relationship. Thus, a person is only influential with respect to those with whom he/she interacts. In the context of a relationship, influence is bounded and confined to specific issues.

Influence as an Activity. Whether influence is an activity or an attribute has been the subject of debate by theorists. Although the former is generally preferred (Dahl, 1963; French & Raven, 1959; Gamson, 1968; Kaplan, 1964; Katz & Kahn, 1966; Khandwalla, 1977; Manz & Gioia, 1983; Provan, 1980; Riker, 1964), others have conceptualized influence as a capacity (Lasswell & Kaplan, 1950; Mokken & Stokman, 1976; Wrong, 1979). The latter approach, however, can be misleading as the inclination to use the potential may be low, the analysis of the situation may be lacking, or the execution can be faulty. In this study, conceptualizing influence as an activity is more appropriate given its emphasis on converting the potential to change a target into actual change.

Influence and Causation. Due to the relational property of influence and its imputed element of change, theorists have often associated influence with causation (Alker, 1973; Hobbes, 1958; Nagel, 1975; Oppenheim, 1976; Riker, 1964; Simon, 1957). For instance, March (1955)

suggested that influence is a subset of all causal relations. Hence, as a requisite for influence, there must be some logical connection between participants. Citing an example posed by Dahl (1957: 202), a man standing by the road commanding motorists to drive on the right side could scarcely be considered influential, while such an attribution may be correct in the case of a policeman directing traffic. Thus, it is important to distinguish influence from spurious correlation (Simon, 1957). Other necessary conditions include that influence precedes the decision or act it is alleged to be influencing (Cartwright, 1959; Dahl, 1957) and there exists some logical explanation as to whether such a relationship is present (Dahl, 1957). In the example above, there is no logical reason why motorists would obey the commands of an ordinary citizen.

By placing the concept within this paradigm, however, many conceptual and methodological difficulties have arisen (Alker, 1973; Chazel, 1976; Dahl, 1968). One problem has been the impracticality of requiring influence to be both a necessary and sufficient condition. Oppenheim (1961: 41) suggested that applying this criterion is inappropriate in that a necessary condition implies that a change in the state of the influencee could not have been possible by any other means. Similarly, Blalock (1964: 30) maintained that few real-life situations satisfy the requirement of necessity.

Other weaknesses of applying the principles of causality to the study of influence include sleeper effects, multiple outcomes, and latent changes in the target. Sleeper effects (Hovland, Janis, & Kelley, 1953; Pratkanis, Greenwald, Leippe, & Baumgardner, 1988) refer to changes in the influencee which become manifest only with the passage of time. Multiple outcomes occur when an influencee changes along many different dimensions while latent changes pertain to an underlying change in a person which is not directly observable or measurable. Given such potential outcomes, March (1955) suggested calculating both the long and short run consequences of influence by expanding the time interval between the stimulus and the response. As March noted, "An adequate theory of influence must be more general than that implicit in a simple stimulus-response statement" (p. 433).

Additionally, an influencee may be able to anticipate the activities of the influencer. Thus, some would conclude that influence has occurred in the absence of any action by the influencer. Friedrich (1963) labeled such instances as the "law of anticipated reactions" while Dahl and Lindblom (1953) referred to them as "spontaneous field control." These considerations clearly require a modification of conventional notions of causality when examining influence.

Influence as a Decision Probability Change. Conceptualizing influence as a probability change was an important contribution by Dahl (1957). Gamson (1974) and others (Ebert & Mitchell, 1975; Pollard & Mitchell, 1972; Schopler & Layton, 1974) pointed out that such a change reflects a shift in subjective probability as there is no objective precedent upon which to derive a true probability.

Rather than studying influence in the context of altering behaviors, influence will be examined here in terms of decisions. It is an approach which has received theoretical support (Bacharach & Lawler, 1980; Boulding, 1989; Ebert & Mitchell, 1975; March, 1955; Lasswell & Kaplan, 1950; Mokken & Stokman, 1976; Pfeffer, 1981; Pollard & Mitchell, 1972).

The Unintentionality of Influence. A final property of influence as conceptualized is the assumption that influence need not be intentional. This occurs, for example, when behavior is imitated (Bandura, 1965; Bandura & Walters, 1963; Miller & Dollard, 1941).

Another type of unintentional influence takes place when an influence attempt results in an unanticipated outcome. This frequently happens when the influence message is vague or instructs the influencee to refrain from an activity (Cartwright, 1959). Likewise, the influencee may respond to unintended cues such as voice tone or misinterpret the message (March & Simon, 1958).

The result is likely to be an unexpected behavior, possibly one which is the opposite of that desired by the influencer. Dahl (1957) and Riker (1964) labeled this "negative power."

Influence may also have an unexpected long-term impact. As a result of anticipated reactions (Friedrich, 1963), an influencee may consider potential actions by the influencer and incorporate them into the decision process even though the influencer may be unaware that such a decision is under consideration.

A final example of influence resulting in unexpected outcomes takes place when an influence attempt indirectly affects third parties such as members of a communication network (March & Simon, 1958). For instance, an executive may make a decision which has unintended repercussions throughout the organization.

While unintentional influence exists, this study focuses on intentional influence attempts. Identifying and proving unintentional influence is beyond the scope of this research.

Chapter II of this study will review previous influence research by segmenting it according to whether its focus is on traits, influence means, situational factors, cognitive theories, dyadic models, or process models. Chapter III will propose a process model of influence and present hypotheses. Chapter IV will discuss how the model was tested and identify the sample, the data

collection method, the measures, and the data analysis procedures. Chapter V will present the results and identify the components of the model receiving empirical support. Chapter VI will discuss the study's contributions and limitations as well as future research.

Chapter II

Approaches to the Study of Influence in Organizations

The purpose of this chapter is to review prior influence research. Given its diversity, the research will be segmented based on the approach employed by the researcher. They are: traits, influence means, situational factors, cognitive theories, dyadic models, and process models. The trait approach focuses both on the attributes of the influencer and influencee as determinants of influence. Studies emphasizing the means of influence posit that certain behaviors are more effective influencers than others. According to another approach, the situation has a bearing on how influential someone will be. Cognitive theories suggest that an important determinant of influence are the decisions preceding the influence act. These include whether to influence, whom to influence, and the means of influence to be used. Still another line of research, the dyadic approach, maintains that influence is a function of the interaction between the influencer and influencee. A final approach to the study of influence are process models. Process models study influence holistically by integrating the other approaches and often depict influence as a series of chronological events.

Traits

Research employing the trait approach focuses either on attributes of the influencer or influencee as

determinants of influence.

Influencer Traits. The application of the trait approach to those purported to be influential has been most prevalent in the context of leadership. While reviews of this research have revealed inconsistencies as to which attributes are important (Bird, 1940; Gibb, 1969; Jenkins, 1947; Mann, 1959; Stogdill, 1948), a limited number of characteristics, including selected personality dimensions, do appear to be associated with leadership (Stogdill, 1974). As Stogdill (1948) pointed out, however, the personal characteristics necessary in order to be an effective leader vary in importance depending upon the situation. Applying this conclusion to the broader study of influence, the search for traits which characterize influential persons should consider the situation in which an interaction occurs. For instance, in a study of organizational politics based on a sample of 87 managers and conducted by Allen, Madison, Porter, Renwick, and Mayes (1979), a relationship was found between important influence attributes and hierarchical level. In their study, chief executive officers rated sensitivity and articulateness as the most important attributes of influential individuals. Staff managers chose articulateness and social adeptness as critical, while supervisors emphasized aggressiveness and popularity. This not only reflects the difficulty of obtaining a consensus as to which attributes are

important, but also indicates the necessity of examining the situation.

Much attention has focused on identifying the needs, values, and personality dimensions associated with influentials. Of these, the need for power has perhaps received the greatest attention (McClelland, 1975; Murray, 1938). Other needs which have been associated with influence include autonomy and security (Porter & Lawler, 1968). Such needs differ from the need for power in that their fulfillment is an outcome of the influence process whereas those seeking to satisfy a need for power derive satisfaction from the actual act of influencing others. Likewise, values such as solipsism, materialism, and social recognition are likely to affect the decision to engage in political influence activities (Vredenburgh & Maurer, 1984).

Personality dimensions have also been posited to be characteristic of those who engage in influence (Mayes & Allen, 1977; Porter, Allen, & Angle, 1981). Specific dimensions include authoritarianism, venturesomeness, cynicism, expedience, and shrewdness (Vredenburgh & Maurer, 1984), as well as locus of control (Moberg, 1978; Porter et al., 1981). However, further empirical testing is necessary in order to determine the impact of the influencer's personality on the degree of influence, as such dimensions appear more useful in explaining the choice of influence tactics (Winter, 1973: 17-19).

Indeed, such was found to be true in the study of Machiavellianism (Christie & Geis, 1970).

The study of influencer traits has been somewhat limited for theoretical and methodological reasons. The approach is generally nontheoretical, as results are often derived by correlating purported influence with a list of attributes. Alternatively, researchers frequently request subjects to identify the attributes of persons they consider to be influential or are asked to select characteristics from a predetermined list of traits. Such results sometimes may merely be reinforcing stereotypes as respondents might be prone to select factors perceived to be associated with influence. Additionally, unless consideration is given to other factors such as the situation, the influencee, and the actual process of influence, the examination of influencer traits will have limited predictive and explanatory value. Nonetheless, the study of influencer traits can be useful when utilized as a component of a process model of a specific nature such as those of Porter et al. (1981) and Vredenburgh and Maurer (1984).

Influencee Traits. Attributes have also been associated with a tendency to be influenced (McGuire, 1968, 1972, 1985). According to a research review by McGuire (1985), age has a nonmonotonic inverted-U relationship to influenceability which peaks at age nine. McGuire also concluded that females are more influenceable

than males.

In addition to physical characteristics, a number of personality dimensions have been proposed as relevant. One personality dimension widely examined in this regard is conformity, as much research has reported a consistency in conforming behavior across situations (Abelson & Lesser, 1959; Back & Davis, 1965; Rosner, 1957; Stricker, Messick, & Jackson, 1970). Crutchfield (1955: 194) found that conformists, as contrasted with their more independent counterparts, demonstrated less intellectual effectiveness, ego strength, leadership ability, and maturity of social relations. Moreover, Crutchfield reported greater feelings of inferiority, rigid and excessive self-control, and authoritarian attitudes among conformists. Other attributes related to conformers include a high need for affiliation (McGhee & Teevan, 1967), a stronger tendency to blame oneself (Costanzo, 1970), and lower self-esteem (Stang, 1972).

Another personality variable associated with a tendency to submit to influence is persuasibility (Janis & Hovland, 1959). Linton and Graham (1959) reported consistent levels of persuasibility across situations. Based on their research, they concluded that attributes of those easily persuaded include external behavior standards, values which favor conformity, immaturity, a weak concept of self, unimaginativeness, limited interests, passiveness, low sexuality, and high value

placed on authority and peer support. Additionally, females were reported to be more easily persuaded than males (Janis & Field, 1959) with those more persuasible in the latter group reporting feelings of inadequacy, social inhibition, aggressiveness, excessive argumentativeness, and a richness of fantasy.

Self-esteem is another personality dimension associated with persuadability (McGuire, 1985). However, while empirical studies have yielded significant findings (Cox & Bauer, 1964; Silverman, 1964), the directionality is conflicting, thereby making it difficult to draw conclusive inferences regarding the impact of self-esteem.

Other personality dimensions have also been related to a tendency to be influenced. For instance, Ritchie and Phares (1969) noted that persons with an external locus of control are more influenced by communications from prestigious sources than internals. Similarly, it has been reported that authoritarians submit to authority to a greater extent than others (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950).

A primary weakness of examining influence from the perspective of the influencee is that it may ignore other relevant factors such as the situation, the influencer, and the nature of the influence attempt. Those who explicitly consider additional factors tend to conclude that it is the interaction of the influencee with the situation which generally provides the most meaningful

results (Endler, 1973; Hunt, 1965). Thus, upon reviewing the literature on conformity, McGuire (1968) concluded there is but a moderate degree of consistency across situations. Nonetheless, the inclusion of such traits is a potentially important consideration when studying the influence process.

Influence Means

A frequently used approach to the study of influence is to focus on the means utilized to influence others. This approach has resulted in the identification of numerous influence methods which differ widely in their specificity and scope (Cartwright, 1965; Kipnis & Schmidt, 1988; Kipnis et al., 1980; Marwell & Schmitt, 1967; Rafaeli & Sutton, 1991; Yukl & Falbe, 1990). Despite their variety, however, each tactic is reducible to some aspect of coercion or consensus. While the debate over which is more prevalent and effective persists (Dahrendorf, 1959; Dowse & Hughes, 1972; Wrong, 1979), nearly all discussions of the means of influence evoke this basic distinction.

Coercion. Friedrich (1963: 166) noted that the distinguishing feature of coercion is that its removal results in a change in the influencee's behavior. Coercion operates primarily through the promise of reward or the threat of punishment (Friedrich, 1963). As to their pervasiveness and efficacy, both have received

considerable theoretical (Blau, 1964; Cartwright, 1965; French & Raven, 1959; Gamson, 1968; Oppenheim, 1961; Parsons, 1963; Porter et al., 1981; Russell, 1938; Wrong, 1979) and empirical support (Kahn, Wolfe, Quinn, & Snoek, 1964; Kipnis & Schmidt, 1982, 1983; Kipnis et al., 1980). From the perspective of the influencer, promising a reward may be an especially desirable method of influence in that it requires no initial resource expenditure. Moreover, the influencer bears little risk as compensation occurs only if the influencee complies. Even then, an influencer may have little motivation to allocate the promised reward as he/she has now obtained that which was sought. This is especially true if the influencer does not anticipate any future interactions with the influencee. Similarly, in the case of threatened punishment, no actions need be taken by the influencer so long as compliance occurs.

A variation of the coercive approach toward influencing others is the actual rendering of rewards and punishments. As Wrong noted, "A punch on the jaw is not the same thing as shaking a fist; a shot from a gun is distinct from pointing a gun and shouting `Hands up!' or `Your money or your life'" (1979: 25). Mokken and Stokman (1976: 40) suggested that it is the relatively powerless who must rely upon intensive and extreme demonstrations of power while others add that resorting to violence or enacted power indicates a power failure (Arendt, 1970; Morgan, 1977; Schelling, 1960).

The primary value of punishment in the short-run is that it restricts the influencee's freedom and re-establishes the power relationship (Wrong, 1979: 26). Over the long-run, enacting punishment may enhance the credibility of threats (Boulding, 1969) and discourage challenges from others (Wrong, 1979). A continual use of punishment, however, whether actual or threatened, necessitates increased surveillance (Wrong, 1979) and motivates the recipient toward acquiring countervailing power (Boulding, 1969).

Distributing rewards as a means of influence produces effects on the influencee which differ from those of punishment. Allocating rewards prior to compliance enhances the influencee's perception that the reward is genuine such that the probability of acceptance is likely to be greater. However, dispensing a reward prior to the commencement of a task presents a risk to the influencer in that the influencee may not respond in the intended manner. Nonetheless, over the long-run, the provision of rewards fosters an expectation of future benefits. While this lowers the likelihood that a task will be performed free of charge (Barry, 1976), it increases the degree of dependency (Blau, 1964).

In addition to rewards and punishments, coercion may also result from the influencer manipulating resources in a manner which alters a situation (Cartwright, 1965; March, 1955; Mokken & Stokman, 1976). For instance,

organizations place limits on their members in terms of budgets and operating procedures. This occurs even to the extent of predetermining which issues are to be decided (Bachrach & Baratz, 1962, 1963; Clegg & Dunkerly, 1980; Ranson, Hinings, & Greenwood, 1980; Zelditch, Harris, Thomas, & Walker, 1983).

Consensus. A second basic method of influencing others is through consensus. Wrong defined consensus as "...the bond of shared values uniting ruler and ruled which enjoin the latter's submission" (1979: 43). Galbraith (1983: 29), who termed this "conditioned power," noted that it can operate either through an explicit attempt to alter beliefs or implicitly through social and cultural indoctrination.

Despite the seeming rationality of influence by consensus, compliance with explicit influence attempts has been found to be contingent upon several variables. As noted by McGuire (1969, 1972, 1985) in reviews of attitude change research, characteristics of the source, the manner in which the message is presented, the communication channel, receiver attributes, and factors relating to the specific impact of the message all affect the degree of acceptance. Hence, persuasion techniques aimed toward generating consensus tend to emphasize effective communication, impression management, and the ability to align oneself with the values of the influencee.

From the perspective of the influencer, obtaining

compliance through consensus is highly desirable in that it does not require any promised or actual expenditure of resources. However, the intended outcome may be more difficult to attain as there is generally less incentive to change. Although influence by consensus may be viewed by some as a default alternative for those lacking the resources for coercion, Kipnis and Schmidt (1983) reported that managers generally prefer reasoning as the primary method of influence regardless of whether they are dealing with superiors or subordinates. Similarly, Allen et al. (1979) found that acts designed to elicit consensus were most frequently enacted by managers regardless of hierarchical level. So too, Barry and Bateman (1992) found rationality to be the most commonly reported influence tactic despite being perceived as successful only in lateral relationships. As Cartwright (1965) noted, in societies where the means of control have advanced beyond primitive stages, there is a tendency to rely upon the "softer" methods of control. Hence, when both consensus and coercion are viable alternatives, the former may generally be preferable to the latter.

Overall, the means utilized to influence others is an important determinant of whether an influence attempt will be successful. However, when examining the means of influence, consideration must be given to the context in which an influence attempt occurs. For instance, the means of influence has been found to vary depending upon

whether the situation was a crisis or noncrisis (Mulder, de Jong, Koppelaar, & Verhage, 1986). Thus, under certain circumstances, coercion may be more effective while fostering consensus may be appropriate in another setting, with other participants, or when seeking to elicit a different magnitude or type of change in a target. Such contingencies have generally been incorporated into models of influence.

Situational Approach

The situational approach to the study of influence posits that environmental factors affect the extent to which an individual will be influential. Increased concern with situational determinants has been due in part to the limited empirical support for trait theory. As Hollander surmised, "...if any point stands forth in the modern day view of leadership it is that leaders are made by circumstances even though some come to those circumstances better equipped than others..." (1964: 5).

The situation impacts upon the influence process by providing the opportunity for interaction such that relationships can be developed and influence may be attempted. Examples include proximity, mutual membership in a coalition, and workflow interaction. However, while necessary for establishing a relationship, these factors do not readily predict what will occur once the relationship has been formed.

The situation also impacts upon the influence process

by altering the degree of influence. In this regard, a number of situational conditions have been identified as relevant. For instance, when influence is based on the ability to provide a valued resource, environmental supply and demand will affect the level of influence. According to Blau (1964), relevant factors include the degree to which the influencee can switch either to alternative sources or substitute resources, and the extent to which others also demand the resource. Additionally, events may occur which alter resource demand and ultimately submission to influence. For instance, Salancik and Pfeffer (1977) noted that during times of crisis, the department best able to resolve the issue is generally afforded the greatest power. Similarly, others suggested that power arises from an ability to reduce uncertainty (Crozier, 1964; Hambrick, 1981; Hickson, Hinings, Lee, Schneck, & Pennings, 1971; Hickson, Pugh, & Pheysey, 1969; Hinings, Hickson, Pennings, & Schneck, 1974; Pfeffer, 1981; Salancik, Pfeffer, & Kelly, 1978; Thompson, 1967; Tushman & Romanelli, 1983).

Another situational determinant purported to affect the extent of influence is network centrality (Astley & Sachdeva, 1984; Bavelas, 1950; Boje & Whetten, 1981; Brass, 1984, 1985; Cook, 1977; Emerson, 1976; Leavitt, 1951, Pfeffer, 1992). This is especially true in situations where task interdependency is high (Dubin, 1957; Hickson et al., 1971; Hinings et al., 1974;

Mechanic, 1962; Thompson, 1967; Tichy & Fombrun, 1979; Woodward, 1965). Individuals occupying central roles tend to be influential due to their ability to provide critical information, the important service they perform in linking network members, and the frequency of interactions. Additionally, incumbents of central roles often provide the valued service of integrating information for others (Freeman, 1979; Freeman, Roeder, & Mulholland, 1980). Moreover, a person who interacts with many people has more opportunities to enter into coalitions, thereby potentially increasing influence.

A final type of situational determinant of influence is the immediate environment. As noted by Davis (1984), planned environments such as offices may deliberately convey images which alter perceptions others have of the officeholder or establish a mood which is conducive to influence. The presence of less controllable factors also impacts upon influence. According to McGuire (1968), situations which either facilitate or strain the ability of the influencee to pay attention and comprehend a message will affect influenceability. Thus, some studies indicate that influence is lower in the presence of distractions (Haaland & Venkatesan, 1968; Romer, 1979; Silverman & Regula, 1968; Silverthorne & Mazmanian, 1975) while others maintain that distracted persons are more likely to be influenced as their ability to generate counterarguments is inhibited (Baron, Baron, & Miller,

1973; Festinger & Maccoby, 1964; Haslett, 1976; Holt & Watts, 1974; Osterhouse & Brock, 1970; Regan & Cheng, 1973). Petty, Wells, and Brock (1976) reconciled the confusion somewhat by asserting that distraction inhibits information processing such that influence may either increase or decrease.

Based upon the empirical findings regarding the situational determinants of influence, the research results clearly support its value. However, as those who have worked from this perspective have attested, focusing exclusively on situational determinants presents a limited view of influence in that it tends to neglect the attributes, motivation, skills, and actions of role occupants (Hambrick, 1981; Hickson et al., 1971, House, 1988). Hence, Winter (1973) and Hollander (1964) advocated the dual importance of the person and the situation.

Cognitive Determinants of Influence

Researchers investigating the determinants of influence sometimes overlook the importance of cognitive factors. Those who utilize this approach emphasize the intentionality of influence. In general, there are four decisions made by participants which substantially affect whether an influence attempt will be successful. Specifically, the potential influencer decides whether to attempt influence, whom to influence, and by what means

influence is to be enacted while the influencee must decide whether to accept influence.

Pertaining to the influencer's decision to influence, one factor identified as relevant is the expected net outcome of influence. While a primary benefit of influence is goal satisfaction, an influence attempt also has certain risks and costs. These include the probability that an attempt may be unsuccessful and could result in retaliation or a loss of credibility. Additionally, acts intended to influence, particularly if they involve the manipulation of resources, may be costly to undertake such that they offset potential benefits. Harsanyi computed the cost of power by means of "...a weighted average of the net total costs of influence that A would incur if his attempt were successful...and of the net total costs that A would incur if his attempt were unsuccessful..." (1962: 68). In addition, Thibaut and Kelley (1959: 107) noted that consideration must also be given to the extent to which the influencee is likely to enact counterpower. Porter et al. placed this decision in a subjective expected utility framework and described it as "...a ratio of the absolute value of the summed expectancy-valence products of all positively valued outcomes to the summed expectancy-valence of all negatively valued outcomes..." (1981: 140).

While also important, the decision regarding whom to influence has received limited attention (Mayes & Allen,

1977; Mowday, 1978). Porter et al. (1981) suggested in their discussion of the politics of upward influence that the selection of an influence target is a function of the perceived relative power of the target and the corresponding cost of influence.

A third decision confronting an influencer concerns how to influence. Kipnis and Schmidt (1983) noted that researchers often erroneously assume that because an influencer controls a particular power base it will be activated in attempts at influencing others. Rather, controlling resources serves to expand the number of alternative actions an influencer may select, thereby increasing the complexity of the decision process.

Theorists vary as to how an influencer actually chooses from among alternative actions. According to Emerson (1976) and Heath (1976), Homans (1961, 1974) depicted the influencer as merely acting upon prior reinforcement while Blau (1964) assumed that the influencer engages in higher order reasoning aimed toward maximizing future outcomes. Thibaut and Kelley (1959), however, asserted that complex decision making occurs when a relationship is initiated but diminishes as behavior becomes routine.

Theorists also differ as to the criteria utilized in selecting a particular influence strategy. As noted by Heath (1976), Blau (1964) assumed utility maximization, while Homans (1961) asserted that the influencer strives

to maximize expected utility. Others (Bacharach & Lawler, 1980; Bonoma, Tedeschi, & Lindskold, 1972; Ebert & Mitchell, 1975; March, 1955; Pollard & Mitchell, 1972; Pollard, Mitchell, & Beach, 1975) have applied decision theory (Edwards, 1954, 1961) to the study of social power positing that the chosen method of influence is that alternative with the greatest subjective expected utility. Others, however, doubt whether an influencer engages in such complex and rational decision making processes (Bierstedt, 1965; Emerson, 1976).

Theorists supporting the rational decision making approach (Ebert & Mitchell, 1975; Pollard & Mitchell, 1972) suggest that the value of an alternative and its assigned probabilities are subjective and thus will vary across persons. For instance, Rosenberg and Pearlin (1962) conducted a study of the preferred means of influence by hospital nurses on mental hospital patients. Nurses varied in their judgments as to which of five possible influence approaches was ideal. More importantly, many different rationales were identified as guiding their selections. Reasons given included the nurse's professional values, expected effectiveness, the immediate costs or work necessary, anticipated delayed consequences, the extent to which relationships with other patients would be affected, work orientation, and the status or position of the nurse. Additionally, Raven (1974) noted that a particular means of power will be

chosen on the basis of personal satisfaction and self-esteem. Hence, even though influencers may actually engage in complex cognitive processes, the criteria they impose vary. Furthermore, Heath (1976) pointed out that an influencer is sometimes unable to formulate any reasonable probabilities regarding the likelihood of future outcomes. Indeed, Schopler (1965) emphasized the importance of the influencer knowing how an influencee will respond in order to better select among alternatives. However, when such an occasion arises, Heath suggested that models of decision-making under uncertainty which utilize principles of game theory (von Neumann & Morgenstern, 1944) be applied to the study of power. Such elements were included by Thibaut and Kelley (1959) in their conceptualization of the social exchange process.

One aspect of selecting a means of influence is that an ineffective strategy can often be abandoned and a new approach implemented. As Cartwright noted when discussing theories pertaining to the natural history of control, "If at an advanced stage a softer form proves to be unsuccessful, then, according to the theory, control 'regresses' to an earlier and harder type of influence" (1965: 13). Thus, an influencer may initially choose the strategy of least cost or greatest ease with the knowledge that a failure to influence can be followed with a more costly approach.

As there are decisions to be made by the influencer,

so too the influencee is confronted with the decision of how to respond to an influence attempt. Overall, the influencee's decision process is considered to be essentially identical to that employed by the influencer (Alker, 1973; Ebert & Mitchell, 1975; Harsanyi, 1962; Heath, 1976; Pollard & Mitchell, 1972). Thus, influence will likely be great if it taps a motive or value base in the influencee (Cartwright, 1959; French & Raven, 1959; Lasswell & Kaplan, 1950). Similarly, if a reward is promised for compliance, the perceived probability that it will be granted affects the likelihood of acceptance. Barry (1976) pointed out that the more costly a threat or promise will be for an influencer to fulfill, the lower the probability it will be enacted and therefore the lower the probability of compliance.

Nonetheless, others conjecture that compliance is sometimes based on altruism. That is, the influencee obeys due to a willingness to help someone rather than the expectation of reward. Such acts would appear to contradict the rational decision processes discussed above. However, as noted in research reviews on prosocial behavior (Krebs, 1983; Krebs & Miller, 1985), the costs and benefits of helping are invariably considered by the helper such that little or no behavior is truly altruistic. Thus, although extrinsic rewards may be lacking, the helper may be receiving intrinsic benefits. Indeed, Rosenhan (1978) maintained that although the

rewards may be subtle, they do exist. Levi-Strauss's (1969) concept of generalized exchange supports this contention. According to Levi-Strauss, while persons will perform services and provide resources for others without payment from the recipient, they believe payment will eventually come in the form of reciprocity from some other member of the qroup, if not the recipient, at some later time. Hence, altruism is applicable to the previously discussed decision-making frameworks.

Overall, cognitive factors are important determinants of influence as they offer explanations as to what occurs in the minds of the influencer and influencee while making a decision. However, as those who have examined the impact of cognitive determinants concede (Alker, 1973; Ebert & Mitchell, 1975; Pollard & Mitchell, 1972; Heider, 1958), environmental conditions will in part determine the effectiveness of the decisions. In addition, the skill in executing a decision to influence is perhaps more important than the mere intention to influence since this is what is perceived and acted upon by the influencee. As is true with all approaches that deal primarily with a single type of determinant, there must be an integration among different perspectives if the value of the cognitive approach is to be realized.

Dyadic Models of Influence

Fay (1987) asserted that power must be dyadic as it arises out of the interaction between two parties. Dyadic

models of influence are integrative attempts at studying influence by focusing on this interaction. Models will be grouped here based on whether the interaction is primarily coercive or consensual in origin. As the means of influence were classified in this manner, so too the dyad itself may be based on either coercion or consensus. In the former, the relationship between the influencer and influencee is contingent upon each individual either securing that which is desired or avoiding negative sanctions. Once the reward or threat of punishment is no longer perceived by the influencee as forthcoming, cooperation terminates. In a dyad based on consensus, however, compliance occurs in the absence of overt incentives. Rather, the dyad exists due shared values, an altruistic desire to help someone, or a belief in the influencer's message. While most relationships are likely a blend of both coercion and consensus, dyadic models of influence tend to emphasize one or the other.

Coercion. Examples of approaches based on coercion are resource-dependency theory (French and Raven, 1959; Pfeffer and Salancik, 1978) and exchange theory (Blau, 1964; Homans, 1961, 1974; Thibaut & Kelley, 1959). Resource-dependency theory posits that power is a function of the resources possessed by the influencer and the extent to which the influencee is dependent upon the former to provide those resources. According to Friedrich, transforming resources into power involves

finding "...human beings who value the things sufficiently to obey his orders in return" (1937: 12).

Theorists writing from the resource-dependency perspective differ as to the resources an influencee is likely to find desirable. For instance, Lasswell and Kaplan (1950) listed power, respect, rectitude, affection, well-being, wealth, skill, and enlightenment as the primary resources while French and Raven (1959) identified coercion, reward, legitimacy, reference, expertise, and information (Raven & Kruglanski, 1970) as power bases. In a study of top management teams, Finkelstein (1992) cited structure, ownership, expertise, and prestige as bases of power. Despite such differences, resource-dependency theory has been applied not only to individuals, but also departments (Beyer, 1982; Crozier, 1964; Hickson et al., 1971; Hickson, Pugh, & Pheysey, 1969), organizations (Aldrich, 1976; Midlin & Aldrich, 1975; Pfeffer & Leong, 1977; Pfeffer & Salancik, 1978; Provan, Beyer, & Kruytbosch, 1980; Salancik & Pfeffer, 1974), communities (Perrucci & Pilisuk, 1970) and nations (Diamond, 1979).

A related type of coercive dyadic model is exchange theory. While resource-dependency theory focuses on controlling resources in order to accumulate power, exchange theory emphasizes the use of resources to elicit the desired response in the target. In general, exchange theory posits that social interactions involve the trading of resources or services in order to acquire something of

utility in return. Influence occurs by giving the target resources he/she values in return for the desired behavior. It is classified as a coercive model in that the influencee's compliance is contingent upon receiving some form of exchange from the influencer. Without that exchange, cooperation ceases. Thus, the influencee complies not out of altruism or a belief in the influencer's cause, but due to the received inducements.

Versions of exchange theory have appeared in anthropology (Levi-Strauss, 1969), organization theory (Barnard, 1938; March & Simon, 1958; Simon, 1957; Simon, Smithburg, & Thompson, 1950), psychology (Thibaut & Kelley, 1959), and sociology (Blau, 1964; Homans, 1961, 1974). While critiques of exchange theory are numerous (Birnbaum, 1976; Chadwick-Jones, 1976; Ekeh, 1974; Emerson, 1976; Gergen, Greenberg, & Willis, 1980; Heath, 1976; Lively, 1976), its systematic evaluation has been hindered by an overall lack of formal theoretical development. Despite this limitation, exchange theory has been extensively applied at the micro level of analysis and is being increasingly adopted at the macro level as well (Aldrich, 1979; Cook, 1977; Jacobs, 1974; Lawrence & Lorsch, 1967; Levine & White, 1961; Parsons, 1963; Thompson, 1967; Yuchtman & Seashore, 1967).

Consensus. While much research has focused on coercive dyadic models, others have emphasized the consensual aspects of relationships. For instance, it has

been observed that given a shared realization that united action will achieve a common purpose not directly attainable through individual initiative, persons will willingly coordinate their efforts (Barnard, 1938; Scott & Hart, 1979). Based on this premise, numerous models of coalition formation have been proposed and reviewed (Caplow, 1968; Gamson, 1964; Kahan & Rapoport, 1984; Murnighan, 1978; Stryker, 1972; Vinacke, 1969). While membership is typically depicted as a utilitarian decision, it is evident that members are also selected on the basis of ideological similarity (Axelrod, 1970; Bacharach & Lawler, 1980; DeSwaan, 1970, 1973; Lawler & Youngs, 1975; Leiserson, 1970; Rosenthal, 1970).

Research on prosocial behavior also utilizes a dyadic approach based on consensus. It has been reported that influence in a helping activity is greatest when similarities are evident in areas such as appearance (Emswiller, Deaux, & Willits, 1971), beliefs or attitudes (Sole, Marton, & Hornstein, 1975), ethnic group (Gaertner & Bickman, 1971; Wispe & Freshley, 1971), and citizenship (Feldman, 1968).

Similarly, dyadic interactions of a consensual nature have been examined in relation to attitude change. It has been found that the impact of persuasion increases with similarity between the source and the receiver (Simons, Berkowitz, & Moyer, 1970; Stoneman & Brody, 1981).

Overall, dyadic models of influence represent

integrative approaches to the study of influence. Wartenberg (1990) noted that a weakness of dyadic models is that power is obtained from agents who are not part of the dyad. He advocated studying dyads in the context of other social forces. Another limitation of dyadic models is the tendency to focus on a limited form of influencing behavior. For example, resource-dependency theory and exchange theory emphasize influence through the use of resources while persuasion and attitude change studies emphasize influencing by communicating information and ideas.

Process Models of Influence

Process models of influence assume the presence of a generalizable sequence of events which ultimately leads to a change in the influencee. It is the most conceptually complete approach in that process models incorporate the five previous perspectives. Process models are useful in that they enable researchers to investigate intervening processes rather than merely inputs and outputs. Given the generality of the influence concept, a number of process models have been devised which incorporate influence but primarily focus on other research areas such as altruism and aggression (Krebs & Miller, 1985), attitude change (McGuire, 1972), coalition formation (Leiserson, 1970), critical contingencies (Hambrick, 1981), leadership (House, 1971; Yukl, 1971, 1981),

motivation (Sussmann & Vecchio, 1982), political decision-making (Baldridge, 1971), and prosocial behavior (Latane & Darley, 1970; Piliavin, Dovidio, Gaertner, & Clark, 1981; Schwartz & Howard, 1981). Such models are beyond the scope of this review.

Process models of influence emerged as researchers attempted to integrate the findings from differing perspectives. Among the first of such efforts was Kipnis' (1976) "Descriptive Model of the Power Act." According to the model, inputs to the power act include power motivation, inhibitions regarding the use of power, resources, and the choice of means. Kipnis then identified six means of influencing others: persuasion, threats, promises, rewards, force, and ecological change. Outputs of the model are the types of responses by the target and the consequences of the power act on the powerholder. Except for resource scarcity and social constraints, situational characteristics are largely absent from the model. Also, little attention is given to the target.

Schein (1977) also presented a process model of power. According to her model, inputs in the power process include personal needs, situational factors, resources, the intentions of the powerholders, and an awareness of the situation. The output is whether the outcome desired when the process was initiated is attained. Should the power act be ineffective, Schein

posited that additional resources would then be implemented. While incorporating a wide range of determinants, one apparent drawback of the Schein model is the dichotomization of the means of influence into overt and covert, thereby omitting much valuable information regarding how persons are influenced.

A third process model is Mayes and Allen's (1977) model of "The Influence Management Process." They essentially posited influence to be a function of strategy (planning) and tactics (implementation). The former is depicted as a four-step process consisting of the formulation of political goals, the analysis of ends-means, the identification of influence targets, and the determination of incentives. The tactics of influence involve the mobilization of incentives, the execution of the plan, and the monitoring of results. The outcome of the process then provides feedback to the preceding stages. Mayes and Allen conceded that the actual sequence of activities may not be as discrete as that depicted by their model. Also, they encouraged expansion of their framework to include both personality variables pertaining to the influencer and situational factors.

A more comprehensive process model is Porter et al.'s (1981) "Episodic Upward Political Influence Model." According to the model, influence is primarily a function of four cognitive processes performed sequentially by the influencer. The first is a recognition of the opportunity

to promote or protect self-interest. This is posited to be a function of situational factors. The second step in the model is the decision to engage in political influence. According to the authors, such a decision is dependent upon the situation and the influencer's characteristics and belief system. Next, an influencer selects an influence target based on the target's characteristics and the relationship between the influencer and the target. The final input in the influence process is the selection of the means of influence which is a function of the situation, influencer and influencee attributes, and the influencer's belief system. The outputs are the perceived consequences of the influence act which also modify the influencer's belief system. The Porter et al. model integrates a great deal of prior research while providing a focus for future studies. Indeed, Porter et al. advocated that "...more elaborate, interactive models should be built on the groundwork laid by the research suggested by the present model" (p. 144).

A somewhat similar integration of diverse findings regarding political behavior is Vredenburgh and Maurer's (1984) process framework of organizational politics. According to the model, the antecedents of political activity include both individual and group characteristics and situational conditions. The extent to which these factors result in political behavior or perceptions of

political behavior is moderated by political sensitivity. Vredenburgh and Maurer identified three primary operating mechanisms of political behavior. One is the decision as to which goals will be pursued politically. A second mechanism is the formulation of strategies and tactics. Both are constrained by sanctions due to organizational design and informal political norms. A final decision made by the influencer is the political style to be utilized. The outcomes of the Vredenburgh and Maurer model include both intended and unintended outcomes. The strength of Vredenburgh and Maurer's framework is its inclusiveness of a wide range of research such that it integrates while providing direction for future research. Concerning the latter, Vredenburgh and Maurer proposed a number of relevant variables.

A final process model to be reviewed is Cobb's (1984) "Episodic Model of Power." According to Cobb, the power act is essentially comprised of antecedent conditions, the power episode, and the aftermath. Antecedent conditions include characteristics of both the agent and target along with the situational context. The power episode consists of three stages: decision making, behavioral, and situational. The decision making stage focuses on the target and spans from the point of arousal until there is a behavioral intention to act. The behavioral stage is the target's actual response to an attempted act of power while the situational stage pertains to changes in the

latter occurring as a result of the target's actions. The final component of the model is the aftermath of the power episode and considers the extent to which the power act has altered the larger system. One outstanding feature of the Cobb model is that it gives substantial attention to the power target as most models are presented strictly from the point of view of the powerholder.

Upon reviewing the process models, the complexity of the influence process is evident. The trend appears to be toward greater inclusiveness and complexity.

Critique of Influence Approaches

Based on the preceding review, each perspective has apparent limitations. With respect to the trait approach, the portion of the influence process it is attempting to explain is often unclear. For instance, are those with a high need for power better able to influence others, do they make more influence attempts, or do they merely tend to favor particular tactics? As Christie and Geis (1970) have noted, Machiavellians are not necessarily superior influencers, but merely choose to engage in a particular influence style. Likewise, social skills will aid an influencer in communicating a persuasive message, but have limited relevance if resources are being exchanged.

While situationalists acknowledge the importance of individual attributes, such as traits and skills, these variables are generally not well integrated into situational models of influence. Additionally, the

situational approach tends to overlook the ability of an individual to shape his/her environment. Thus, while a situationalist might conclude that network centrality determines influence, such a situation may occur as a result of the influencer possessing certain traits/skills.

Other perspectives such as the study of influence means are also limited in providing generalizable conclusions regarding influence as certain tactics may be effective in one situation but not another. Cognitive theories are also narrow as they focus little on actual behavior. Additionally, both the means and cognitive perspectives are constrained in that they presume deliberate, calculative attempts at influence even though this may sometimes not be the case.

The dyadic approach to the study of influence has been hindered by a reluctance to challenge or modify early theories of resource-dependency and social exchange. Part of the problem has been that since these theories were presented in highly general terms, they are nonfalsifiable and lack predictive value (Gergen et al., 1980). Efforts to enhance the value of these theories should be directed toward improving their specificity and testability. Future research on dyads also must pay greater attention to the act of influence rather than its potential. In addition, comparatively little attention has been given by proponents of the dyadic approach to the influence target.

Process models offer the most complete explanation of

influence as they incorporate research on traits, situational factors, influence means, cognitions, and dyads, while ordering the events which comprise the influence act into a time sequence. However, contemporary process models of influence have several limitations. One is that such models have achieved a high level of description but at the expense of conceptualization. By failing to incorporate concepts such as resource-dependency and social exchange in their frameworks, many process models of influence lack a theoretical foundation. This problem is exacerbated when such models contain long lists of variables which might be related to influence, such as various personality traits, without explicitly stating their conceptual or practical importance or positing the nature of their interactions with other variables. A further weakness of contemporary process models of influence is that they tend to neglect the influencee.

Overall, while future research ought to continue toward the development of process models, the aim should be toward the theoretical synthesis of approaches which will integrate the many diverse explanations of influence into a unified framework. Integration is desirable in that it adds clarity and order to existing research, provides a firm theoretical foundation upon which future studies can be based, contributes toward understanding the interrelationships among models, and lessens allegiance to

a specific theory in favor of a more holistic approach.

In order to work toward resolving the many limitations addressed above, a process model will be proposed which continues the synthesizing which prior process models have begun. Whereas previous process models were concerned with reconciling existing empirical findings, this model seeks to generate empirical research as it strives toward the unification of concepts. Where explanations regarding aspects of the influence process are lacking or have not been empirically supported, new conceptualizations will be proposed. Additionally, the study will posit conceptual linkages between influence process components as such interfaces are generally neglected by researchers.

Chapter III

A Process Model Of Interpersonal Influence

A model of interpersonal influence is presented in Figure 1. Its description will be divided into four sections: the influencer's propensity to influence, choice of means, the influence act, and influence process outcomes. The initial sections which deal with influence propensity and the choice of means are only applicable to deliberate influence attempts. However, the remainder of the model can also include inadvertent influence attempts.

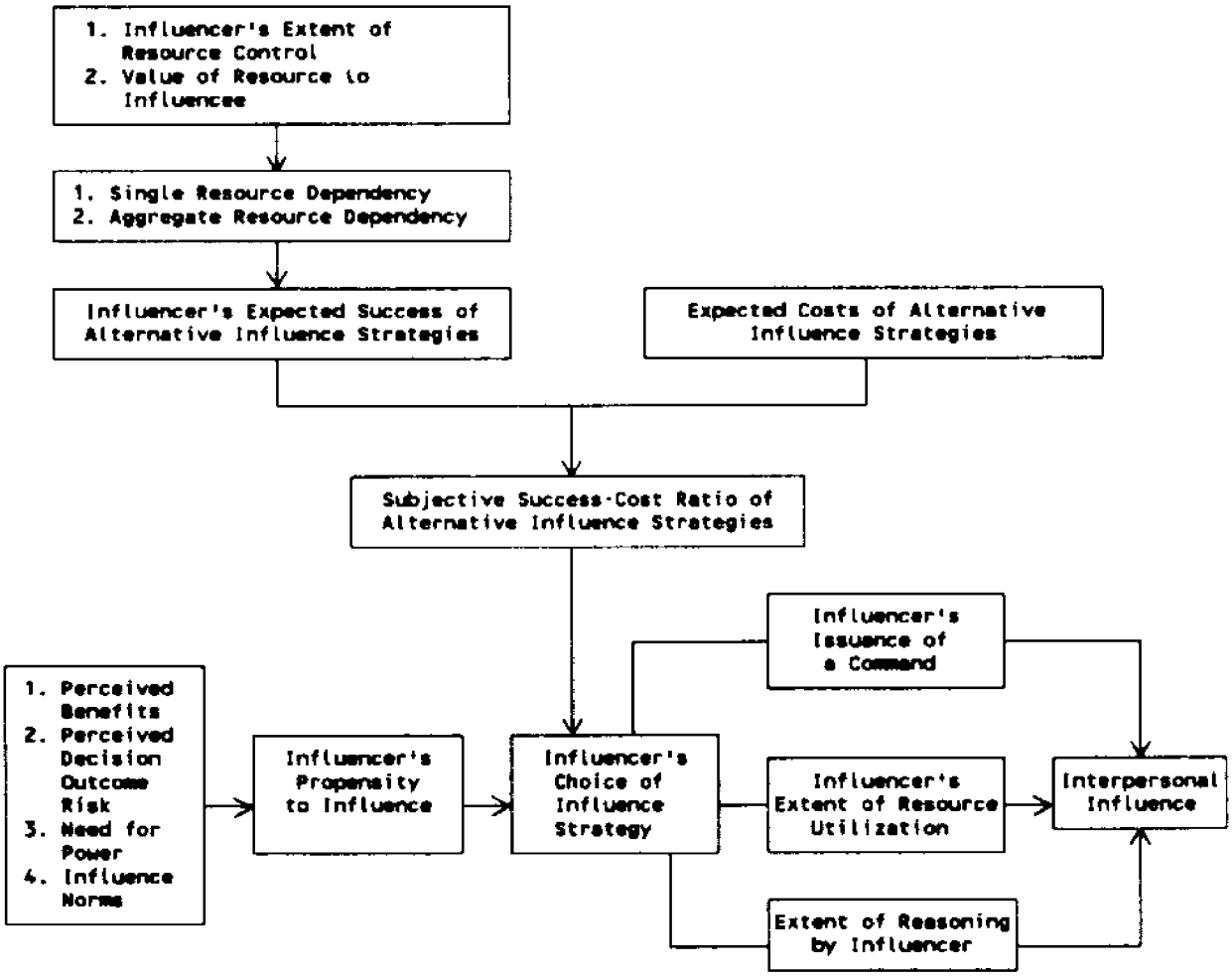
Influencer's Propensity to Influence

The propensity to influence tends to be viewed as either a rational decision (Harsanyi, 1962; Thibaut & Kelley, 1959), the manifestation of a psychological need, such as power (McClelland, 1975; Winter, 1973), or the result of social pressure (Emerson, 1962). While each perspective offers an explanation of influence propensity, all three determinants likely contribute. The degree of their contribution and the extent to which they interact, however, have yet to be empirically tested. It is posited here that four factors interactively contribute to influence propensity. Two, which relate to influence propensity's rational component, are the benefits to be obtained from influencing and the risks associated with the outcome of the influence attempt. A third factor is whether influencing satisfies a psychological need to dominate. The fourth consideration is the degree to which

Figure 1

A Model of the Formulation and

Deployment of an Influencing Strategy



norms create a social pressure to influence.

Perceived Benefits. A primary factor contributing to the propensity to influence is the degree to which the influencer perceives that influencing will enable him/her to secure a desired outcome. Hemphill (1961) experimentally found that when rewards were high, more leadership acts were attempted than under low-reward conditions. Similarly, Frost (1987) noted that those who are rewarded for exercising power are more predisposed toward power and seek opportunities for its use. For the purposes of this research, it is not important whether such an expectation stems from either a cognitive evaluation or prior behavioral reinforcement as both mechanisms likely operate to a certain extent.

Perceived Decision Outcome Risk. Sitkin and Pablo (1992) conceptualized risk as the extent of uncertainty regarding decision outcomes. They distinguished risk from risk propensity in that the latter refers to a tendency to accept risks.

The concept of risk has been incorporated into previous influence research. For instance, in a group decision-making experiment, it was reported that the greater a member's risk-taking, the greater the member's influence (Wallach, Kogan, & Bem, 1962). Porter et al. (1981) included risk-seeking propensity in their model of upward political influence and suggested that risk seekers would be tempted to engage in influence. It is suggested

here however, that risk inhibits influence propensity as the greater the perceived probability that detrimental outcomes will occur equaling or exceeding the benefits of influence, the lower the likelihood that influence will be attempted. Hence, an influencer considers not only the benefits to be derived from influencing, but also the risk of the influence attempt triggering adverse consequences.

Need for Power. Those with a high need for power view power as an end in itself rather than as a means of attaining some objective (Cartwright, 1965; Russell, 1938). According to Frost (1987), high needs for power and dominance are motivational antecedents to an individual's predisposition toward power. High need for power individuals have been found to display greater activation (Fodor, 1984) and exert greater influence on work groups (Fodor & Farrow, 1979) than those with a low need for power. In a meta-analysis of leadership traits (Lord, De Vader, & Alliger, 1986), dominance was positively correlated with leadership. Consistent with these findings, it is suggested that the greater the need for power the more likely influence will be initiated.

Influence Norms. A final contributor to the propensity to influence is the degree to which the influencer perceives that organizational and professional norms encourage the use of power. According to Barnes in his discussion of the nature of power, "In a stable normative order knowledge that an action is normal and

routinely done encourages the performance of the action..." (1988: 56). Porter et al. (1981) speculated that norms may permit or prescribe upward political influence attempts. Emerson (1962) maintained that group norms and role prescriptions oblige members to use their power and direct it through channels defined by the norms of the group. Thus, salespersons are expected to influence the purchasing decisions of their customers, physicians influence their patients, and attorneys attempt to influence the decisions of juries. Hemphill (1961) found that the social pressure to lead is great when group members are aware of an individual's superior knowledge or competence. Related to the impact of professional norms on the predisposition to influence, Frost (1987) asserted that the greater the professional expertise, the more likely the individual is to acquire power.

The Interaction Among Influence Propensity Components. House proposed that personal predispositions toward power interact with situational cues such that "Individuals high on these predispositions acquire more power in situations where cues make leadership, control and power salient than do individuals low on these predispositions" (1988: 326). Previous research has not considered however, how perceived benefits, influence outcome risk, the need for power, and influence norms combine to form influence propensity. Although the four factors are conceptually independent of one another,

significant interactive effects are likely to occur which greatly increase the degree to which an individual is prone to engage in influencing behavior. It is suggested that these interactions result in a propensity to influence which exceeds the sum of the individual factors. Thus, it is hypothesized:

1. Influence propensity is a function of the interaction among the perceived benefits of influence, the need for power, influence norms, and perceived decision outcome risk. Specifically, the greater the perceived benefits of influence, the need for power, and the strength of influence norms, and the lower the perceived decision outcome risk, the greater the propensity to attempt influence.

Influencer's Choice of Influence Strategy

Of primary concern in choosing an influence mechanism is a strategy's expected success. The expected success of a strategy refers to the anticipated change in the probability of the influencee behaving as the influencer desires. Upon considering various influence mechanisms, an influencer estimates the degree to which each strategy will improve the probability of the influencee acting in the desired manner. In a study of nurses' influence over patients, Rosenberg and Pearlin (1962) reported that nurses consider the probable effectiveness of various influence tactics prior to selecting an influencing behavior.

One factor relating to the expected success of various influence strategies is the degree to which the

influencee is dependent upon the influencer for resources. Resource dependency has been a widely studied source of power (Blalock, 1989; Crozier, 1964; Emerson, 1962; Hickson et al., 1971; Hinings et al., 1974; Kotter, 1977, 1979; Mintzberg, 1983; Pfeffer, 1981; Pfeffer & Salancik, 1978). Dependency is advantageous to the influencer as it enables him/her to gain compliance through means other than reasoning.

According to Martin (1977), dependency is primarily a function of the distribution of control over desired resources. Estimating an influencee's dependency is a judgmental process based on the value an influencee places on various resources and the extent to which the influencer controls these resources. There have been many efforts to identify the resources which form a power base (Dahl, 1961; Etzioni, 1961, Finkelstein, 1992; French & Raven, 1959; Gamson, 1968; Laswell & Kaplan, 1950; Raven & Kruglanski, 1970). Such lists have limited utility beyond the specific contexts in which they were presented as any resource controlled by the influencer and valued by the influencee can be a base of power. Within organizations, resources generally relate to the employee's inducements-contributions exchange and pertain to the employee's personal well-being, his/her performance, and the structure of the employee's role. Personal well-being resources are the employee's inducements to participate in the organization while performance resources enable the

employee to contribute to the firm. Role structure resources define the employee's role and latitude of behavior. Examples appear in Table 1.

In order to elicit a sense of dependency, however, the resources attributed to the influencer must be valued by the influencee. The value of a resource refers to the degree to which an influencee wishes to acquire it or, if already possessed, prevent its removal. A resource's value to an influencee represents his/her personal utility and is different from its market price.

An additional factor contributing to the degree of dependency pertains to the nature of the resource supply. In general, the lower the influencee's perception that the influencer controls valued resources, the lower the dependence on a given influencer. Considering both the value of a resource and the extent of control, resource dependency may be expressed as:

Resource Dependency =
(Extent of Control)(Resource Value) (1)

According to this equation, resource dependency is a function of the extent to which the influencer controls a resource multiplied by the resource's value to the influencee.

Equation 1 is relevant to the formulation of an influence strategy when an influencer is considering a resource's utilization. Thus it is hypothesized:

Table 1

Resources and their Area of Impact on the Work Experience

I. Personal Well-being

1. Pay
2. Perquisites
3. Advancement
4. Affiliation
5. Esteem
6. Reference

II. Performance

1. Materials
2. Budget Allowances
3. Staff
4. Expertise
5. Information
6. Uncertainty Reduction
7. Time
8. Service

III. Role Structure

1. Task Assignment
3. Task Priorities
4. Decision Criteria
5. Rules and Procedures
6. Role Norms

2. The greater the influencer's attribution as to the influencee's dependency on a given resource, the greater the influencer's expected change in the influencee's decision probability as a result of using that resource.

Equation 1 is limited in that it only considers dependency on a single resource. In actuality, an influencer is likely to control multiple valued resources. Thus, when examining the aggregate impact of multiple resources on an influencee's dependency, the following expression is appropriate:

$$\text{Aggregate Resource Dependency} = \sum_{i=1}^{n} \text{Extent of Control} \times \text{Resource Value} \qquad (2)$$

where i is each resource and n is the total number of resources the influencer controls.

Based on this equation, aggregate resource dependency can result from an influencer controlling a moderate amount of many valued resources while not necessarily monopolizing any single one.

When contemplating an influence strategy, it is posited that the influencer considers the influencee's aggregate resource dependency. The greater the influencee's dependency, the greater the perceived likelihood of the influence attempt being successful. For two influence strategies, the issuance of a command and reasoning, the dependency itself is sufficient to increase the perceived likelihood of success. This is due to the dependent influencee's cost of noncompliance. Should the

influencer be rejected, resources which the influencer controls could be used in retaliation. To avoid such an outcome, the influencee is likely to comply. The influence strategies of issuing a command and reasoning relate to hypothesis 3 and will be discussed more fully in the section on enacting influence.

3. The greater the influencer's attribution as to the influencee's aggregate resource dependency, the greater the influencer's expected change in the influencee's decision probability via the issuance of a command and reasoning.

Another influence strategy, the utilization of resources, however, entails actually deploying resources in order to elicit the desired change. Thus, hypothesis 4 pertains to the utilization of resources. This strategy will also be discussed more fully in the section on enacting influence.

4. The greater the influencer's attribution as to the influencee's aggregate resource dependency, the greater the influencer's expected change in the influencee's decision probability via resource use.

In addition to a strategy's expected success, an influencer also considers the cost associated with a particular action (Bedell & Sistrunk, 1973; Blalock, 1989; Cartwright, 1965; Dahl, 1968; Gamson, 1968; Goldman, 1972; Harsanyi, 1962; Kipnis, 1976; Pfeffer, 1981; Raven & Kruglanski, 1970; Thibaut & Kelley, 1959). Such costs can be considerable when they involve the utilization of resources. It is suggested that the influencer compares the anticipated effectiveness of a tactic with its

perceived cost. The influencer must then decide whether the increase in outcome probability is worth the expense.

In general, there are two types of costs associated with an influence attempt. One are the costs associated with successful influence such as time and resources expended. The other are the costs of a failed influence attempt (Karp, 1985). Such an occurrence may be particularly costly in diminishing the ability to influence future events. It is maintained that both types of costs are considered when an influence attempt is contemplated.

The trade-off between the improved probability that the influencee will act in the preferred manner, with the costs associated with both the success and failure of an influence attempt, may be expressed in the form of a subjective success-cost ratio:

$$\text{Subjective Success-Cost Ratio} = (P_{t2} - P_{t1})/(P_{t2})(C_s) + (1-P_{t2})(C_u) \quad (3)$$

where P_{t1} is the subjective probability that the influencee will act in the preferred manner in the absence of an influence attempt; P_{t2} is the subjective probability that the influencee will act in the preferred manner after an influence attempt; C_s is the cost associated with an attempt which results in the preferred outcome; and C_u is the cost associated with an unsuccessful attempt.

Based on this expression, the option with the greatest positive ratio is the one most likely to be chosen. Thus, it is hypothesized:

5. The greater the subjective success-cost ratio associated with a means of influence, the greater its likelihood of utilization.

Enacting Influence

Despite the variety of influencing behaviors that have been identified (Cartwright, 1965; Kipnis & Schmidt, 1983; Kipnis, Schmidt & Wilkinson, 1980; Kotter, 1977; Strauss, 1962; Yukl & Falbe, 1990), all are reducible to three primary means of influence. They are: reasoning, commands, and the utilization of resources. Other, more specific tactics can either be subsumed under this classification or represented as combinations of these three approaches.

Influence through Reasoning. Kipnis, Schmidt, Swaffin-Smith, and Wilkinson defined reasoning as an influence strategy which "...involves the use of facts and data to support the development of a logical argument" (1984: 60). It is a consensual form of influence in that change results from the influencee accepting the influencer's logic and evidence in the absence of inducements and threats.

Influence through Command. A command differs from reasoning in that the former provides no explanation as to why something should be done. According to Wrong, "If the essence of persuasion is the presentation of arguments, the essence of authority is the issuance of commands" (1979: 35). Wrong further noted that authority may be based on coercion, inducements, legitimacy, competence, or the commander's personal qualities.

Influence through Resource Utilization. A third means of influencing others is through the utilization of resources in order to alter the influencee's environment (Kotter, 1977). This approach has received much attention in the context of influencing decisions. By manipulating the decision agenda, criteria, constraints, alternatives, and input information, an influencer can guide the influencee toward the desired decision outcome (Bachrach & Baratz, 1963; Hickson, Astley, Butler, & Wilson, 1981; Patchen, 1974; Pettigrew, 1973; Pfeffer, 1981, 1992). Thus, by strategically deploying resources, an influencee's decision parameters can be altered so as to increase the likelihood of the influencer's preference being adopted.

Influence Process Outcomes

The final step in the influence process is the degree to which the influence attempt shifts the influencee's decision probability. Barry and Bateman (1992) noted that little attention has been given to studying the effectiveness of influence attempts. Falbe and Yukl (1992) concluded that the findings of the few empirical studies that have examined the effects of a manager's influencing behavior have been inconsistent. Raven and Kruglanski (1970) asserted that the result of combining power bases is nonadditive as they tend to cancel each other out. Conversely, Kotter (1977) argued that using multiple forms of power can be more potent and less risky

than relying on a single method. Gray, Richardson, and Mayhew (1968) reported that influence increases with the amount of influence attempted. Similarly, in their study of 95 M.B.A. students, Falbe and Yukl (1992) found multiple tactics to be generally superior to single tactics. Consistent with these findings, it is posited that the greatest degree of influence occurs when all three influence methods are combined. Thus, as a final hypothesis:

6. The more means of influence used, the greater the influence.

Upon observing the reactions of the influencee to the influence attempt, the influencer decides whether to initiate another influence attempt. If so, new evaluations are made of the influencee's resource dependency, success probabilities are revised, costs estimated, and a new plan of action is devised. Thus, many influence attempts could occur before the influencer is either satisfied with the degree of the influencee's change or conclude that further attempts would prove too costly. This process of feedback, re-evaluation, and the possibility of further attempts, however, is beyond the scope of this study as the emphasis here is on the precursors of a single attempt.

Chapter IV

Research Design

Sample

The sample consisted of 100 purchasing professionals from 21 firms in the chemical and allied products industry. The sample was gathered by writing to either the corporate purchasing director or public affairs director requesting the participation of all available purchasing professionals. The former were identified through the Directory of Corporate Affiliations (1991) while the latter were found through the National Directory of Corporate Public Affairs (Close, McCormick, & Steele, 1992). The Directory of Corporate Affiliations is comprised of "companies listed on the New York and American Stock Exchanges, the Fortune '1000,' as well as those whose stock is traded over-the-counter and many privately owned" (1991: A-2). The National Directory of Corporate Public Affairs also focuses primarily on large corporations.

Participating firms had yearly chemical sales exceeding $200 million with a mean of $3.9 billion. Additionally, all participating firms were spatially dispersed. This indicates that the firm operates at more than one location. According to 1987 census data (United States Department of Commerce, Bureau of the Census, 1991), only 19.2% of chemical companies in the United States are multiestablishments. Thus, the sample is

representative of large firms in the chemical and allied products industry. Furthermore, all participating firms were corporations. This is consistent with the finding of the 1987 census that 90.8% of chemical firms have corporate ownership or control (United States Department of Commerce, Bureau of the Census, 1991).

According to the Standard Industrial Classification Manual (Executive Office of the President, Office of Management and Budget, 1987: 132), the chemical and allied products industry "...includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes." Using their classification system, 33% of the firms studied were primarily associated with the manufacture of plastic materials and synthetics, 24% drugs, 19% industrial organic chemicals, 14% soaps, cleaners, and toilet goods, 5% agricultural chemicals, and 5% miscellaneous chemical products. Thus, a diversity of industry segments were represented with 81% of the firms competing in more than one chemical industry segment. The firms were located in the United States with 67% in the Northeast, 14% in the North Central, and 19% in the South.

The number of interviews conducted at a firm ranged from 1 to 10 with a mean of 4.8. This variability was due to the size of the purchasing unit at a given location and the number of purchasing managers available for interviews at the time of the visit. Given that the study focuses

primarily on how purchasing professionals evaluate resources as a basis for formulating influence strategies, the number of interviews conducted with a given firm is not expected to significantly impact upon the results. Indeed, not more than 10% of the sample was obtained from any one firm.

The use of purchasing professionals in a study of influence is particularly appropriate given that a prominent facet of the purchasing function involves interacting across departmental boundaries. Indeed, previous research has focused on the effects of influence on purchasing decisions (Kohli, 1989; Patchen, 1974; Pettigrew, 1973; Ronchetto, Hutt, & Reingen, 1989; Silk & Kalwani, 1982).

While job titles vary across firms in their meaning, 47% of the participating purchasing professionals reported their job title as manager or supervisor, 20% as buyer, 18% as agent, 6% as director, 5% as specialist/analyst, while 4% reported other job titles. The mean time occupying their present job title was 4.3 years with a 4.2 standard deviation. Of participants, 55% worked in the Northeast, 28% in the South, and 17% in the North Central United States. Eighty-two percent of the purchasing professionals were male while 82% were married. Thirty-seven percent of the subjects were between the ages of 40 and 49, 27% were 30 to 39, and 23% were 50 to 59 years old. Ninety-two percent of the subjects had earned a

college degree with 30% holding graduate degrees. Ten percent of the sample were C.P.M.s. Thirty-one percent of the sample earned between $45 thousand and $65 thousand per year, 29% between $65 thousand and $85 thousand per year, while 26% reported earning more than $85 thousand per year. In terms of tenure, respondents had been with their firm an average of 15.5 years with a standard deviation of 10.4 years. Respondents reported being in the purchasing field an average of 12.4 years with a 9.0 standard deviation.

Data Collection

Data were collected in two stages. The initial phase involved on-site personal interviews. The purchasing professional was requested to name an actual purchase decision in which a vendor had yet to be chosen. The interview focused on the vendor selection process for the cited purchase. According to Inman and Schoenberger (1982), this facet of the purchasing process is the foundation of the purchasing manager's role. In this study, 46% of the purchases involved buying a raw material, 20% were packaging materials, 17% were services, 15% focused on equipment, and 2% were for land. Thus, a variety of purchases are represented. To further gauge the representativeness of the purchases comprising this study, the interviewee was asked to rate the importance of the purchase relative to various interest groups. Its

purpose was to determine whether respondents were biased in the purchases chosen for the interview. Ratings were on a 5-point scale and ranged from 1 (little importance) to 5 (great importance). With respect to his/her own career the mean importance of the purchase was 2.7 with a 1.3 standard deviation while its mean importance to his/her department was 3.1 with a 1.2 standard deviation. The purchasing professional also rated the purchase's importance to both the influencee and the influencee's department. The former received a mean score of 2.9 with a 1.3 standard deviation, while the latter had a mean rating of 3.5 with a 1.1 standard deviation. When asked how important the purchase is to the firm, the purchasing professional's mean response was 3.5 with a 1.3 standard deviation. As these ratings are normally distributed, it can be concluded that the respondents were not biased toward selecting purchases based on their importance.

The influence target was determined by asking the purchasing professional to cite the person outside of the department who has the greatest impact in determining which vendor is chosen. While the targets' titles varied, 29% reflected direct responsibility for a product's overall performance and had titles such as product manager, business manager, and project manager. Twenty-one percent of the influence targets were materials managers, 19% were engineers, 5% were staff administrators, and 4% were marketing, sales, and customer

service managers. Of the targets' departments, 29% were in product departments/groups, 16% were in engineering, 16% were in production/operations/manufacturing, 14% were in research and development, 7% were in staff departments, and 6% were marketing, sales, and customer service. The purchasing professional reported working with the target on purchases an average of 4.2 years with a 5.5 standard deviation. Thus, a variety of influence targets from a diversity of departments were represented.

At the time of the interview, the purchasing professional was also requested to complete a brief survey. Included were scales measuring the perceived benefits of influencing, the need for power, and perceived influence norms. The survey also requested demographic information such as age, education, and job tenure.

The second phase of the research, a follow-up survey, was administered by mail three weeks after the interview. The questionnaire focused primarily on the means of influence used. Eighty-five percent of the interviewees responded to the follow-up survey. No discernible differences were found between respondents and nonrespondents.

Measures

Determinants of Influence Propensity. Four variables were posited as contributing to the likelihood of influence being attempted: perceived benefits, influence norms, the need for power, and perceived decision outcome

risk.

Perceived Benefits. This scale measures the degree to which the influencer believes that influencing others is personally rewarding. Developed for this study and appearing in the survey accompanying the interview, the measure was comprised of six items, each rated on a five-point scale (see page 133). The scale consisted of the following rewards: respect, advancement, a sense of accomplishment, job security, personal gratification, and organizational rewards. In selecting benefits for the scale, the intent was to include a cross-section of intrinsic and extrinsic rewards. To assist in evaluating its content validity, the scale was presented to purchasing managers individually prior to its implementation. The construct was described to the purchasing manager and he/she was asked to comment on its suitability for purchasing managers. There were no objections to the construct, the scale, or any of its items.

Since this is a new measure, an item analysis was undertaken to determine how well each item contributes to the scale. As suggested by Nunnally (1978), each item was correlated with the sum of the other items. A statistically nonsignificant correlation would indicate that the item be removed from the scale. Using this procedure, correlations ranged from .31 to .50 with a mean of .41. As they were all statistically significant beyond

the .001 level, no items were eliminated. The items were summed to yield a single measure of perceived benefits. The scale's reliability as computed by coefficient alpha was .68.

While content validity and internal consistency contribute to a scale's construct validity (Ghiselli, Campbell, & Zedeck, 1981), they do not ensure that the intended construct is being measured. A third consideration is whether the measure behaves as expected (Nunnally, 1978). If a scale has construct validity, it should correlate with other constructs for which there is a logical relationship and be uncorrelated with constructs for which there should be no relationship. Concerning the former, if the perceived benefits of influencing are high, purchasing managers would be expected to place great importance on purchasing decisions as it gives him/her the opportunity to obtain rewards. Indeed, a positive correlation was found between perceived benefits and the perceived importance of the purchase to his/her career ($r=.23$, $p<.05$). If perceived benefits are high, a purchasing manager would also be expected to put forth high effort to ensure his/her successful influence. In support of this assertion, it was found that when reasoning was employed as a means of influence, there was a positive correlation between perceived benefits and the number of reasons stated during the influence attempt ($r=.30$, $p<.05$). A positive association was also found

between perceived benefits and the probability that he/she would use resources as a means of influencing ($r=.21$, $p<.05$). As the use of resources can be costly, those with something to gain are more likely to adopt such a strategy.

While related to some constructs, the perceived benefits scale was found to be unrelated to other constructs for which it has no logical association. Thus, there were no statistically significant correlations between perceived benefits and organizational tenure, purchasing experience, length of time in present job, education, or gender. Overall, the scale's pattern of relationships with other constructs, as well as its content validity and internal consistency, support the measure's construct validity.

Influence Norms. This scale refers to the degree to which the influencer perceives that organizational and professional standards encourage influencing behavior. Developed for this study and appearing in the survey accompanying the interview, the measure consisted of six items, each rated on a five-point scale (see page 134). Three items pertained to perceived organizational pressure to influence. Of these, two items focused on influence as a role requirement while the other item represented the perceived pressure from other departments to influence. The scale's remaining three items concerned the perceived obligation to influence based on purchasing profession

standards. Prior to its implementation, the scale was presented individually to purchasing managers in order to assess its content validity. There were no objections to the construct, the scale, or any of its items.

As this measure had not been previously used, an item analysis was performed to determine how well each item contributes to the scale. Once again employing Nunnally's (1978) procedure, each item was correlated with the sum of the other items. The resulting correlations were statistically significant ($p<.05$) with the exception of the first item. It reads, "Basically, my job with this firm is to carry out the decisions of others." As its correlation with the sum of the other items was just .09, this item was dropped from the scale. The item analysis was then repeated for the five remaining items. The correlations between each item and the sum of the other four items ranged from .22 to .47 with a mean of .33. As all the correlations were statistically significant beyond the .05 level, no further items were removed.

The five items were summed to yield a single measure of influence norms. Using coefficient alpha, the scale's reliability was computed as .55. In evaluating whether a scale's reliability is adequate, consideration should be given to the purpose for which the measure is being used (Nunnally, 1978). As the scale's purpose is to determine whether influence norms affect influence propensity, the scale's reliability is sufficient, given the study's

sample size. If this construct does emerge as a significant determinant of influence propensity, however, it is suggested that the number of items in the scale be increased as this tends to improve a scale's reliability and hence statistical power (Carmines & Zeller, 1979; Nunnally, 1978).

To assist in establishing the scale's construct validity, the measure was correlated with other constructs to determine whether it behaves as expected (Nunnally, 1978). For instance, if a purchasing manager feels obligated to ensure that the best vendor is selected, he/she would be expected to use whatever means of influence are available. In support of this assertion, a negative correlation was found between influence norms and the probability that the purchasing manager will attempt influence through reasoning only ($r=-.24$, $p<.05$). Similarly, there is a positive association between influence norms and the probability of using resources to influence ($r=.28$, $p<.01$).

In further support of the measure, a positive correlation was found between influence norms and the length of time a purchasing manager has occupied his/her present position. Such an association is understandable as influence norms are likely learned over time. Someone who is new to a purchasing position may not identify with the purchasing profession or fully understand the purchasing manager's role. The longer a person holds a

particular purchasing position, however, the more he/she should feel compelled to use his/her accumulated knowledge of materials and vendors to ensure that the best supplier is chosen.

While related to some constructs, the influence norms scale was found to be unrelated to other constructs for which it has no logical association. Thus, there were no significant correlations between influence norms and organizational tenure, education, or gender. Overall, the scale's pattern of relationships with other constructs, as well as its content validity and internal consistency, support the measure's construct validity.

Need for Power. This study utilized Steers and Braunstein's (1976) need for dominance scale which is based on Murray's (1938) need theory. Murray defined the dominance drive as "a desire to control the sentiments and behaviours of others" (p. 151). The scale has been frequently used as a measure of need for power (Ganster, Schaubroeck, Sime, & Mayes, 1991; Kumar & Beyerlein, 1991; Parker & Chusmir, 1991; Schilit, 1986). Parker and Chusmir note that this scale differs from the need for power measured by the Thematic Apperception Test as the former measures manifest needs based on one's values while the latter measures latent or subconscious needs.

Administered in the survey accompanying the personal interview, the measure consisted of five summed items, each rated on a seven-point scale (see page 134). In

addition to evidence of the scale's convergent, discriminant, and predictive validity, Steers and Braunstein reported a .86 test-retest correlation and a coefficient alpha reliability of .83. In a review of eight studies employing this scale, Dreher and Mai-Dalton (1983) report that coefficient alphas ranged from .46 to Steers and Braunstein's .83 with a median of .60. More recent studies have reported coefficient alphas of .78 (Schneer & Chanin, 1987), .75 (Parker & Chusmir, 1991), and .82 (Ganster, et al., 1991). In this study, coefficient alpha was computed as .57. This is consistent with Dreher and Mai-Dalton's .60 median and should supply sufficient statistical power to enable the testing of the hypothesis.

Perceived Decision Outcome Risk. The perceived decision outcome risk is the probability that successful influence will ultimately have a detrimental outcome. A single-item measure, the purchasing manager was asked to estimate the probability that the preferred supplier will perform at an unsatisfactory level.

Influence Propensity. This measure represents the likelihood that the purchasing manager will attempt to influence. Influence propensity was derived from the interview data based on the stated probabilities of specific influencing behaviors being implemented. In computing influence propensity, the following equation was employed:

$$\text{Influence Propensity} = 1 - [(1 - P_D) \times (1 - P_U) \times (1 - P_R)] \quad (4)$$

where P_D is the probability of a directive, P_U is the probability of resource utilization, and P_R is the probability of reasoning.

Resource Dependency as a Determinant of Expected Influence. It was posited that the greater an influencee's dependency on the influencer for a given resource, the greater the influence expected to occur as a result of using that resource. As this study focused on interdepartmental influence, resources such as pay and promotion were not applicable. As the purchasing manager and the influence target are interfacing in the context of a purchase decision, the resources which form the basis for dependency are those which contribute to the final decision. These purchase factors are: the working relationship between the parties, purchase costs, delivery date, product quality, specification information, procurement policies and procedures, access to vendors, and authority.

Influencee's Single Resource Dependency. Single resource dependency was conceptualized as the extent of the influencer's control over a resource multiplied by the resource's value to the influencee. The resource control and resource value measures are described below.

Influencer's Extent of Resource Control. On a five-point scale, the purchasing manager was asked to rate the

extent of his/her control over each resource as perceived by the influencee with respect to the purchase (see page 135).

Influencee's Value of Resources. The influencer's estimation of the value the influencee places on each resource was measured on a five-point scale (see page 136).

Expected Influence. This variable reflects the degree to which using a resource will increase the likelihood of the influencee selecting the purchasing manager's preferred supplier. It was measured by asking the purchasing manager to indicate the probability that the supplier whom he/she prefers will also be preferred by the influencee after using a particular resource as a basis for influencing (see page 136). This rating is useful when compared to the probability that the influencee will choose the purchasing manager's preferred supplier in the absence of any intervention (see page 137). The difference represents a resource's expected impact.

Aggregate Resource Dependency as a Determinant of a Strategy's Expected Success. It was posited that the greater the influencee's aggregate resource dependency, the greater the influence expected to occur as a result of both controlling and using resources.

Aggregate Resource Dependency. Aggregate resource dependency is the degree to which the influencee is

dependent upon the influencer due to the latter controlling multiple resources. It was computed by summing the single resource dependency scores.

Expected Success due to Aggregate Resource Dependency. The respondent was asked to estimate the influencee's supplier selection probability after the issuance of a directive, after reasoning, and after the utilization of resources. This measure is useful when compared to the influencee's selection probability in the absence of an influence attempt (see page 138).

Subjective Success-Cost Ratio as a Determinant of Strategy Selection. It was posited that the subjective success-cost ratio affects the likelihood of a particular influence strategy being used.

Subjective Success-Cost Ratio. Four measures were used in computing this ratio: the probability of the influencee selecting the preferred supplier both in the presence and absence of the influence attempt, and the costs associated both with a successful and an unsuccessful influence attempt.

Expected Success of Influence Strategies. The purchasing manager was asked to estimate the probability that using a given strategy would result in the influencee selecting the purchasing manager's preferred supplier. This was done for all seven possible combinations of the three primary approaches (directive, resource utilization, and reasoning), as well as the option of not attempting

influence (see page 138).

Estimated Costs of Influence Strategies. The purchasing manager was asked to estimate costs associated with both successful and unsuccessful influence attempts. He/she was presented two types of costs (the ability to influence in the future and time expended) and asked to indicate, on a five-point scale, their degree of costliness as they pertain to the successful use of each of the three primary influence strategies plus the option of not attempting influence (see page 139). The ratings for both expenses were summed to yield a costliness score. This procedure was repeated for the case of unsuccessful influence. For the more complex strategies involving multiple behaviors, the cost measure was obtained by summing the cost scores for the component approaches.

Use Likelihood. This measure refers to the likelihood of the purchasing manager engaging in a particular influence strategy. In this study, seven possible strategies were possible: 1) issue a directive only; 2) use reasoning only; 3) use resources only; 4) issue a directive and use reasoning; 5) issue a directive and use resources; 6) use reasoning and resources; and 7) issue a directive, use reasoning, and use resources. Rather than burdening the purchasing manager with the task of assigning probabilities to all these mutually exclusive strategies, he/she was asked to state the probability of issuing a directive, the probability of using reasoning,

and the probability of using resources (see page 141). From this information, the probability of each of the seven approaches being employed was computed. For instance, the likelihood that the influencer would only issue a directive was determined by the probability of issuing a directive, multiplied by the probability that reasoning would not be used, multiplied by the probability that resources would not be used.

Influence Approaches. It was posited that the more approaches (issuing a directive, resource utilization, reasoning) used, the greater the influence.

Issuing a Directive. In determining whether a directive was issued, the purchasing manager was asked in the follow-up survey whether he/she made a statement to the influencee indicating that a particular supplier be chosen or eliminated from consideration (see page 141).

Resource Utilization. In the follow-up survey, the purchasing manager was asked to select from a list of resources those utilized in attempting influence (see page 142).

Reasoning. The purchasing manager was asked in the follow-up survey if reasoning was attempted and the number of reasons given to the influencee as to why one supplier would be preferable to another (see page 142).

Interpersonal Influence. In the follow-up survey, the purchasing manager was asked to rate on a 5-point scale his/her influence since the interview (see page

142). To determine whether the measure is representative of the purchasing manager's impact over the entire course of the decision, the purchasing manager was also asked, "Overall, how much do you feel you have influenced the vendor preference of the _____ with respect to this decision?" This too was rated on a five-point scale ranging from "little or no influence" to "very great influence." As a positive correlation was found between this measure of overall influence and the influence reported as occurring since the interview ($r=.79$, $p<.001$), the purchasing manager's impact during the measurement period is representative of his/her influencing activity at other times.

Data Analysis

Hypothesis 1 was tested using hierarchical regression. It examined the interactive effect of the purchasing manager's need for power, perceived benefits, influence norms, and perceived decision outcome risk on influence propensity. In the initial step, the four predictors were entered into the regression equation. Jaccard, Turrisi, and Wan (1990) note that this is necessary because product terms contain variance attributable to both main effects and interactions. By entering main effects first, variance attributable solely to the interactions may be identified.

In the second step, product terms representing the six possible two-way interactions were added. Should the

inclusion of the second-order terms significantly increase explained variance, the four possible three-way effects would then be added to the regression model. If third-order effects were detected, a final step would be to complete the regression model by entering a four-way product term and testing whether it too makes a significant contribution. Thus, the procedure not only tests for the presence of interactions, but whether they are best described by a second, third, or fourth-order regression model.

A problem associated with the inclusion of multiple product terms into a single regression equation is multicollinearity (Jaccard et al., 1990). Cronbach (1987) notes that this can result in less accurate computations due to rounding error, regression weights with comparatively large sampling errors, and a loss in the statistical power to detect an effect. This problem can be overcome however, by centering the predictor variables (Cohen & Cohen, 1975; Cronbach, 1987; Jaccard et al., 1990). Centering is a data transformation procedure in which a subject's score is subtracted by the scale's mean. This results in predictors with means of zero and substantially reduces multicollinearity while retaining variance. Given the large number of product terms necessary for the regression model, centered predictors were used.

The detection of a statistically significant increase

in explained variance due to a second, third, or fourth-order effect would provide partial support for the hypothesis. Before hypothesis 1 can be confirmed however, it must also be found that influence propensity is greatest at the hypothesized point and the predictors contribute to influence propensity in the expected direction. One means of determining the former is to substitute extreme predictor values into the regression equation and compute predicted influence propensity. Ezekiel and Fox (1959) warn however, that when employing multiple predictors, the joint distribution of the predictors must be considered. For instance, it would be inappropriate to compute influence propensity for the point at which perceived decision outcome risk, perceived benefits, the need for power, and influence norms are all at their highest value in the dataset as no subject possesses such an extreme combination of scores. To do so would be extrapolating beyond the data. Indeed, no respondent has scores which are on the boundaries of all four predictors. Therefore, to search for a maximization point by substituting extreme values into the regression equation could result in a false conclusion.

To avoid extrapolating beyond the data, influence propensity can be computed for each observation in the dataset. Support for hypothesis 1 would occur if the individual with the highest predicted influence propensity is characterized by a high need for power, high perceived

benefits, strong influence norms, and low perceived decision outcome risk.

Although a predictor may make a positive contribution to influence propensity when the other predictors are at their optimal levels, under less ideal conditions its impact may be negative or absent. Hypothesis 1 suggested that the predictors monotonically contribute to influence propensity. For instance, although the degree to which the need for power contributes to influence propensity may vary depending upon the status of the other predictors, its directionality was expected to remain positive. Similarly, perceived benefits and influence norms were expected to have a consistently positive impact on influence propensity while perceived decision outcome risk's impact was expected to be consistently negative.

To test for directional stability, Schoonhoven's (1981) monotonicity analysis would be undertaken. According to Schoonhoven, a predictor's contingent contribution can be identified by differentiating the regression equation with respect to the predictor. For instance, the detection of second-order effects would result in the following regression equation:

$$\begin{aligned}\text{Influence Propensity} = {} & b_0 + b_1(\text{risk}) \\ & + b_2(\text{norms}) + b_3(\text{n-power}) + b_4(\text{benefits}) \\ & + b_5(\text{benefits})(\text{norms}) + b_6(\text{norms})(\text{n-power}) \\ & + b_7(\text{benefits})(\text{n-power}) + b_8(\text{risk})(\text{norms}) \\ & + b_9(\text{risk})(\text{benefits}) + b_{10}(\text{risk})(\text{n-power})\end{aligned} \qquad (5)$$

Finding the partial derivative of influence propensity

with respect to perceived decision outcome risk results in the following:

$$\text{Risk's Contingent Impact on Influence Propensity} = b_1 + b_8(\text{norms}) + b_9(\text{benefits}) + b_{10}(\text{n-power}) \quad (6)$$

Equation 6 represents perceived decision outcome risk's contingent contribution to influence propensity. By substituting values for the other three predictors into equation 6 and solving, risk's impact on influence propensity at any given point can be identified. Support for hypothesis 1 would occur if risk's impact on influence propensity is negative regardless of the values substituted into the equation. This procedure would be undertaken for each influence propensity determinant.

Hypothesis 2 was also tested through hierarchical regression. It posited that the greater the influencee's dependency on a resource, the greater the degree of influence expected to occur as a result of using that resource. Although influence was conceptualized as the influencee's decision probability after an influence attempt less the decision probability in its absence, the use of difference scores as a criterion variable is a statistically suspect procedure (Cronbach & Furby, 1970; Johns, 1981; Lord, 1967). An alternative means is to treat the pretest as a covariate and the posttest as the criterion variable (Cohen & Cohen, 1975). In such a procedure, the pretest is the initial term entered into

the hierarchical regression. This eliminates any criterion variance directly attributable to the pretest. Once this adjustment in the criterion's variance is made, the impact of the predictor on the criterion is determined by examining the incremental increase in explained variance. For this analysis, the estimated influencee's decision probability in the absence of the influence attempt was the covariate with the estimated decision probability after the influence attempt serving as the criterion variable.

A three-step hierarchical regression was undertaken to test hypothesis 2. In the first step, the covariate, the influencee's decision probability in the absence of attempted influence, was entered into the regression model. In the second step, the resource dependency term was added. A statistically significant increase in explained variance along with a positively sloped regression coefficient would confirm the hypothesis. As a third step in the hierarchical procedure, a product term carrying the covariate's interaction with resource dependency was entered. Although not necessary for testing the hypothesis, a significant interaction would indicate that the covariate is indirectly affecting the predictor's impact on the criterion variable.

Should such an effect be detected, it would be useful to specify the interaction's form. Schoonhoven (1981) advised undertaking a monotonicity analysis as a means of

better understanding an interaction effect. As described with respect to hypothesis 1, the regression equation is first differentiated with respect to the predictor. In this instance, the detection of an interaction would result in the following regression equation:

$$\text{Expected Influence} = b_0 + b_1(\text{Decision Probability in Absence of Attempt}) + b_2(\text{Resource Dependency}) + b_3(\text{Decision Probability in Absence of Attempt})(\text{Resource Dependency}) \quad (7)$$

Finding the partial derivative of expected influence with respect to resource dependency results in the following:

$$\text{Dependency's Contingent Impact on Expected Influence} = b_2 + b_3(\text{Decision Probability in Absence of Attempt}) \quad (8)$$

Solving this equation locates the monotonicity point. Here, resource dependency has no impact on expected influence. If this value lies outside the covariate's range, resource dependency's contribution to expected influence is monotonic. Thus, although the predictor's contribution would vary for each level of the covariate, its directionality would remain the same regardless of the covariate's value. If the point is within the covariate's range however, not only would the predictor's degree of contribution vary depending upon the covariate's value, but the directionality would vary as well. To identify the predictor's contribution at a specific covariate value, this point is substituted into equation 8 and solved.

Hypotheses 3 and 4 examined the impact of the influencee's aggregate resource dependency on the influencer's evaluation of an influence mechanism. Specifically, hypothesis 3 posited that the greater the influencee's aggregate resource dependency, the greater the expected efficacies of a directive and of reasoning. Similarly, hypothesis 4 suggested a positive relationship between the influencee's aggregate resource dependency and the degree of influence expected to occur as a result of using resources. Consistent with the procedures employed in testing hypothesis 2, the hypotheses were tested through hierarchical regression. The influencee's decision probability in the absence of an influence attempt served as a covariate and comprised the initial hierarchical step. In the second step, aggregate resource dependency was added. A statistically significant increase in explained variance along with a positively sloped regression coefficient would confirm the hypothesis. A final step in the hierarchical procedure was to test for the interaction between the covariate and aggregate resource dependency. As noted with respect to hypothesis 2, testing for an interaction will determine whether the covariate is indirectly affecting the predictor-criterion relationship.

Hypothesis 5 posited that the greater the subjective success-cost ratio associated with an influence strategy, the greater its likelihood of use. Regression analysis

was used to test this hypothesis. In this instance, no covariate was necessary as the criterion variable did not represent change.

Hypothesis 6 suggested that the more influence approaches used, the greater the influence. It was tested through a three-step hierarchical regression. In the first step, the likelihood of the purchasing manager's preferred supplier being chosen in the absence of an influence attempt was entered as a covariate. This was done to alleviate bias resulting from pre-influence probability levels. In the second step, the number of approaches used was entered. A statistically significant increase in explained variance along with a positively sloped regression coefficient would confirm the hypothesis. The third step included the interaction between the selection likelihood in the absence of influence and the number of approaches used. While not required to test the hypothesis, inclusion of the interaction term determines whether the covariate is having an indirect impact on the predictor-criterion relationship.

Chapter V

Results

This chapter reports the results of the tested hypotheses. In some instances the findings merited further analysis so as to better specify a predictor's impact on its criterion variable.

Hypothesis 1

Hypothesis 1 examined the determinants of the propensity to influence. It asserted that influence propensity is a function of the interaction between the influencer's need for power, perceived decision outcome risk, the perceived benefits of influence, and influence norms. Hypothesis 1 maintained that influence propensity would be greatest when the influencer has a high need for power, perceived decision outcome risk is low, the benefits of influencing are perceived as high, and norms strongly encourage influencing behavior.

Table 2 presents the descriptive statistics for the variables included in hypothesis 1. The ranges and standard deviations indicate variability among respondents. Examination of the means suggests that perceived decision outcome risk tends to be low while influence propensity is generally high. None of the four predictors are significantly correlated with influence propensity. While the intercorrelations among the predictors are at acceptable levels, to lessen multicollinearity among the many interaction terms used

Table 2

Descriptive Statistics for Influence Propensity Variables[a,b]

Variable [Range]	Mean	s.d.	1	2	3	4
1. Perceived Benefits [16-30]	24.10	2.60	(.68)			
2. Norms [15-25]	21.17	2.39	.39***	(.55)		
3. Need for Power [17-34]	24.57	2.86	.29**	.28**	(.57)	
4. Perceived Decision Outcome Risk [0-100]	10.87	16.13	.07	.07	.16	
5. Influence Propensity [19-100]	96.33	9.71	.01	.11	.09	.12

[a] N = 100

[b] Values in parentheses represent coefficient alphas.

*p<.05

**p<.01

***p<.001

in testing hypothesis 1, the predictors were centered prior to forming the product terms and entry into the hierarchical regression.

The results of the hierarchical regression analysis for hypothesis 1 appear in Table 3. The inclusion of the second-order product terms significantly increased explained variance thereby providing partial support for the hypothesis. As the third-order product terms did not significantly improve the regression model, the analysis was terminated and the second-order model retained.

Before hypothesis 1 can be confirmed however, it must be determined whether influence propensity is optimized at the hypothesized point and the predictors contribute to influence propensity in the expected direction. Regarding the former, predicted influence propensity computed for each subject was highest for the individual possessing a high need for power, low perceived decision outcome risk, high perceived benefits, and strong influence norms. As this is the expected optimization point, the finding supports hypothesis 1. Conversely, predicted influence propensity was lowest for the subject whose need for power is high, perceived decision outcome risk and perceived benefits are low, and influence norms are weak. Comparing the two extremes, both the highest and lowest influence propensities occur when the purchasing manager has a high need for power and the probability of the vendor performing inadequately is low.

Table 3

Hierarchical Regression Results for Influence Propensity[a]

Predictor Variable	R^2	ΔR^2
1. perceived benefits norms need for power perceived decision outcome risk		.03
2. benefits x norms benefits x need for power benefits x risk norms x need for power norms x risk need for power x risk	.18*	.15*,b
3. benefits x norms x need for power benefits x norms x risk benefits x need for power x risk norms x need for power x risk	.22	.04

[a] N = 100

[b] Influence Propensity = 96.87*** + .10(risk) - .02(ben) - .06(n-pow) + .41(norms) + .15(ben x n-pow) -. 37*(ben x norms) - .08*(n-pow x risk) + .06(norms x risk) + .16(norms x n-pow) + .05(ben x risk)

*p<.05

**p<.01

***p<.001

While influence propensity is greatest at the hypothesized point, a related issue is whether the predictors monotonically contribute to influence propensity in the expected direction. This was determined by undertaking Schoonhoven's (1981) monotonicity analysis in which the regression equation is differentiated with respect to the predictor. Using this procedure, perceived decision outcome risk's contingent contribution to influence propensity is the following:

Risk's Contingent Impact on Influence Propensity =
.10 - .08(n-power) + .06(norms) + .05(benefits) (9)

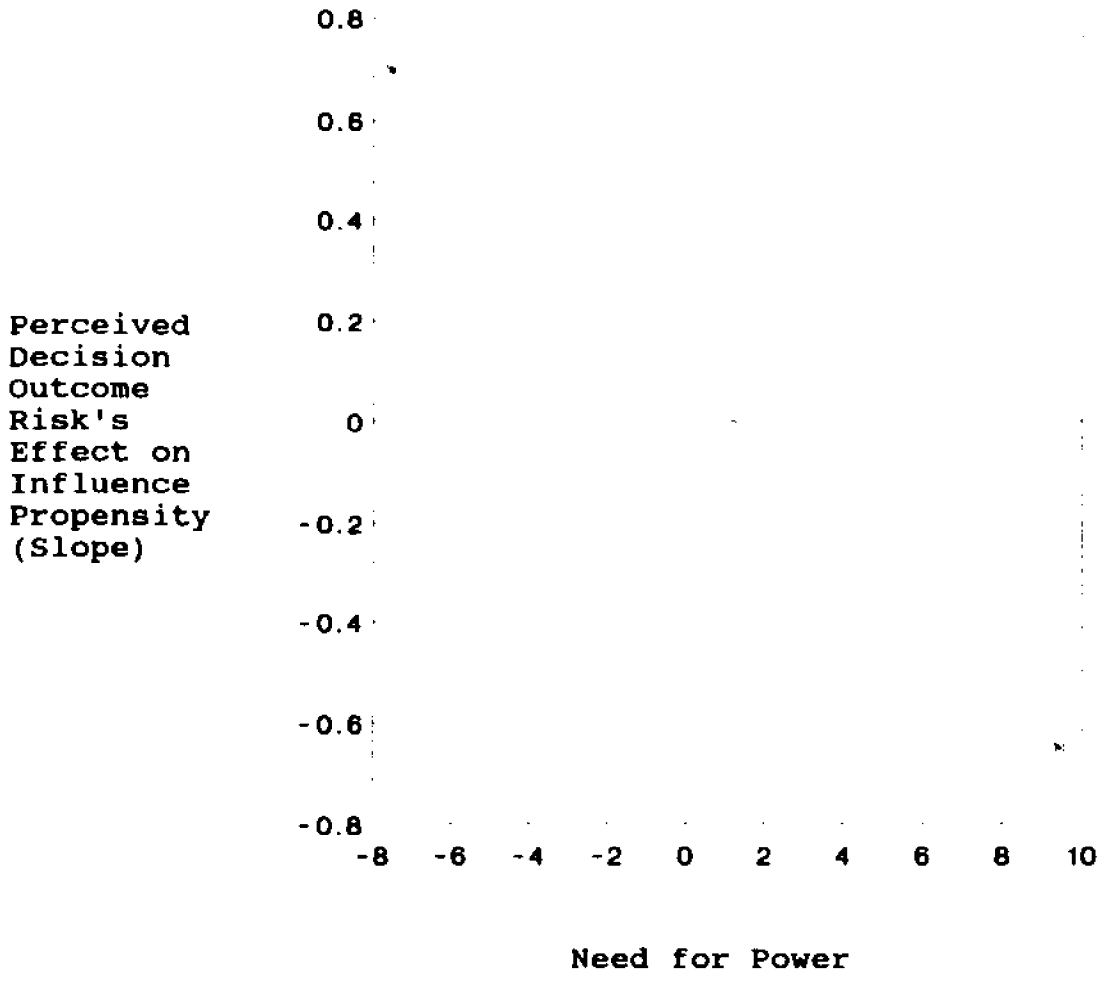
According to equation 9, risk's impact on influence propensity is primarily a function of its interaction with the other three determinants. Of these however, the only statistically significant interaction is between risk and the need for power. By substituting average scores (zero) for influence norms and perceived benefits into equation 9, the impact of these nonsignificant interactions is eliminated thus simplifying the equation and resulting in the following:

Risk's Contingent Impact on Influence Propensity =
.10 - .08(n-power) (10)

Solving equation 10 reveals that when the purchasing manager's need for power is 1.23, risk has no effect on influence propensity. Figure 2 depicts the impact of perceived decision outcome risk on influence propensity

Figure 2

The Impact of Need for Power on the Relationship Between Perceived Decision Outcome Risk and Influence Propensity



over the need for power's centered range. When the need for power is greater than 1.23, the greater the risk the lower the influence propensity. Indeed, it was expected that high risk would inhibit influence propensity. When the need for power is below 1.23 however, the greater the risk the greater the influence propensity. This finding, that a decision with a high probability of having an unacceptable outcome can generate high influence propensity, was unanticipated.

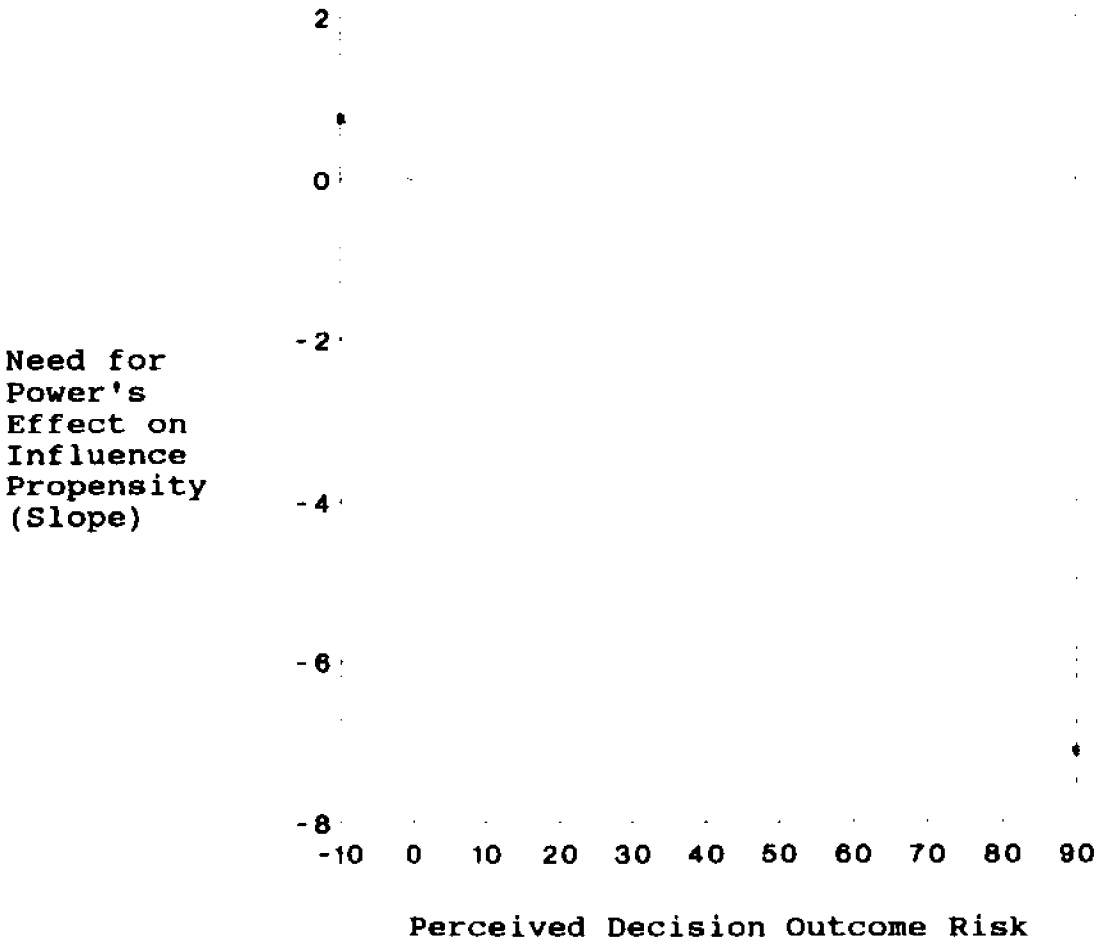
The contingent impact of the purchasing manager's need for power on influence propensity is also primarily a function of the interaction between perceived decision outcome risk and the need for power. Differentiating the regression equation with respect to the need for power and subsequently removing the impact of the nonsignificant interactions results in the following:

N-power's Contingent Impact on Influence Propensity =
$-.06 - .08(\text{risk})$ (11)

Solving equation 11 reveals that the need for power has no impact on influence propensity when perceived decision outcome risk is -.71. Figure 3 depicts the relationship between the need for power and influence propensity along the centered range of the perceived decision outcome risk variable. When perceived decision outcome risk is less than -.71, the greater the need for power the greater the influence propensity. Indeed, the need for power was expected to have a positive impact on influence

Figure 3

The Impact of Perceived Decision Outcome Risk on the Relationship Between Need for Power and Influence Propensity



propensity. When perceived decision outcome risk is greater than -.71 however, the need for power has a negative impact on influence propensity. This finding, that a purchasing manager with a low need for power has a greater propensity to influence a high-risk decision than someone with a high need for power, was unexpected.

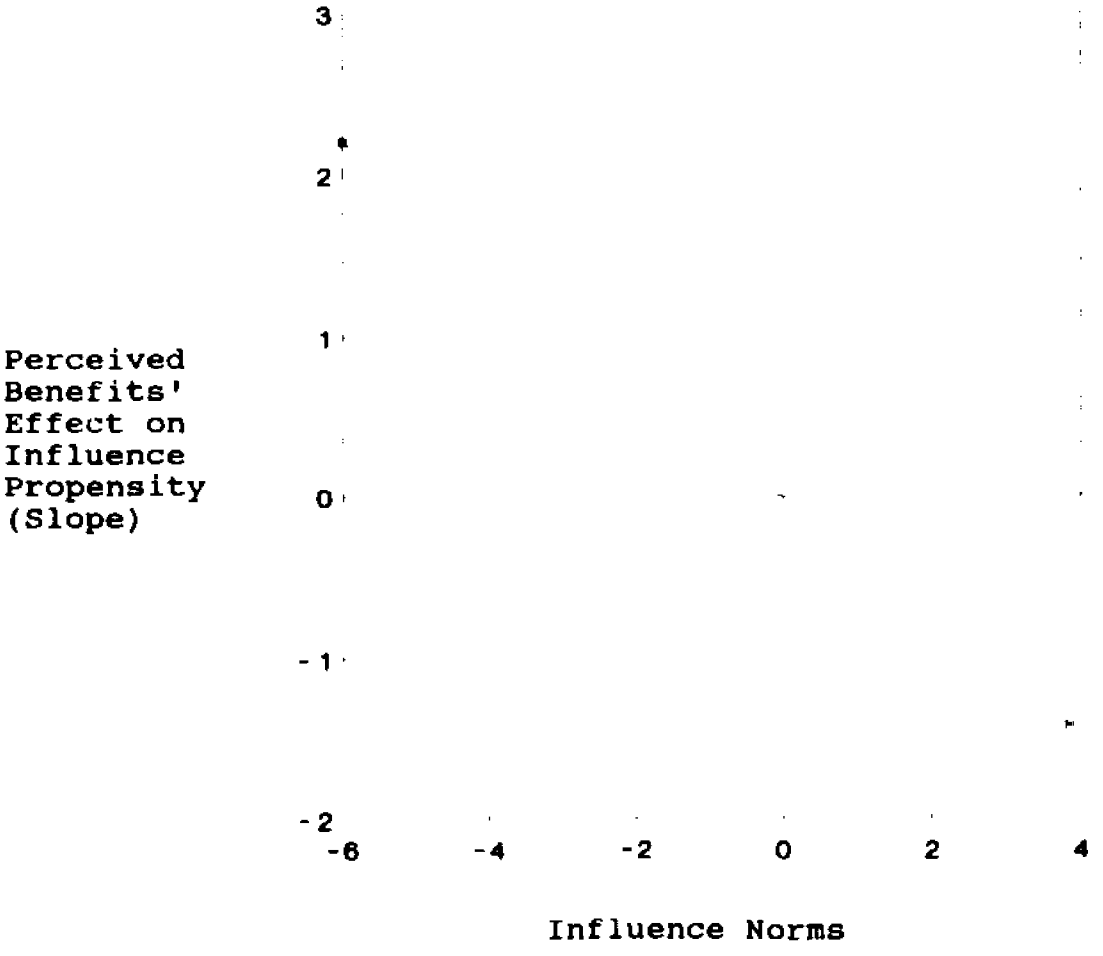
The only other statistically significant second-order effect among the influence propensity determinants is the interaction between perceived benefits and influence norms. Perceived benefits' contingent impact on influence propensity after differentiating the regression equation with respect to perceived benefits and removing the nonsignificant interactions is thus:

$$\text{Benefits' Contingent Impact on Influence Propensity} = -.02 - .37(\text{norms}) \quad (12)$$

Solving equation 12 reveals that the perceived benefits variable has no effect on influence propensity when the value of influence norms is -.06. Figure 4 depicts the impact of perceived benefits on influence propensity over the centered range of the influence norms variable. When the value of influence norms is below -.06, the greater the perceived benefits of influence the greater the influence propensity. Indeed, it was expected that perceived benefits would have a positive impact on influence propensity. When the value of influence norms is greater than -.06 however, the greater the perceived benefits the lower the influence propensity. This inverse

Figure 4

The Impact of Influence Norms on the Relationship Between Perceived Benefits and Influence Propensity



relationship between perceived benefits and influence propensity was unanticipated.

The interaction between perceived benefits and influence norms also affects the contingent impact of influence norms on influence propensity. Differentiating the regression equation with respect to influence norms and removing the impact of the nonsignificant interactions results in the following:

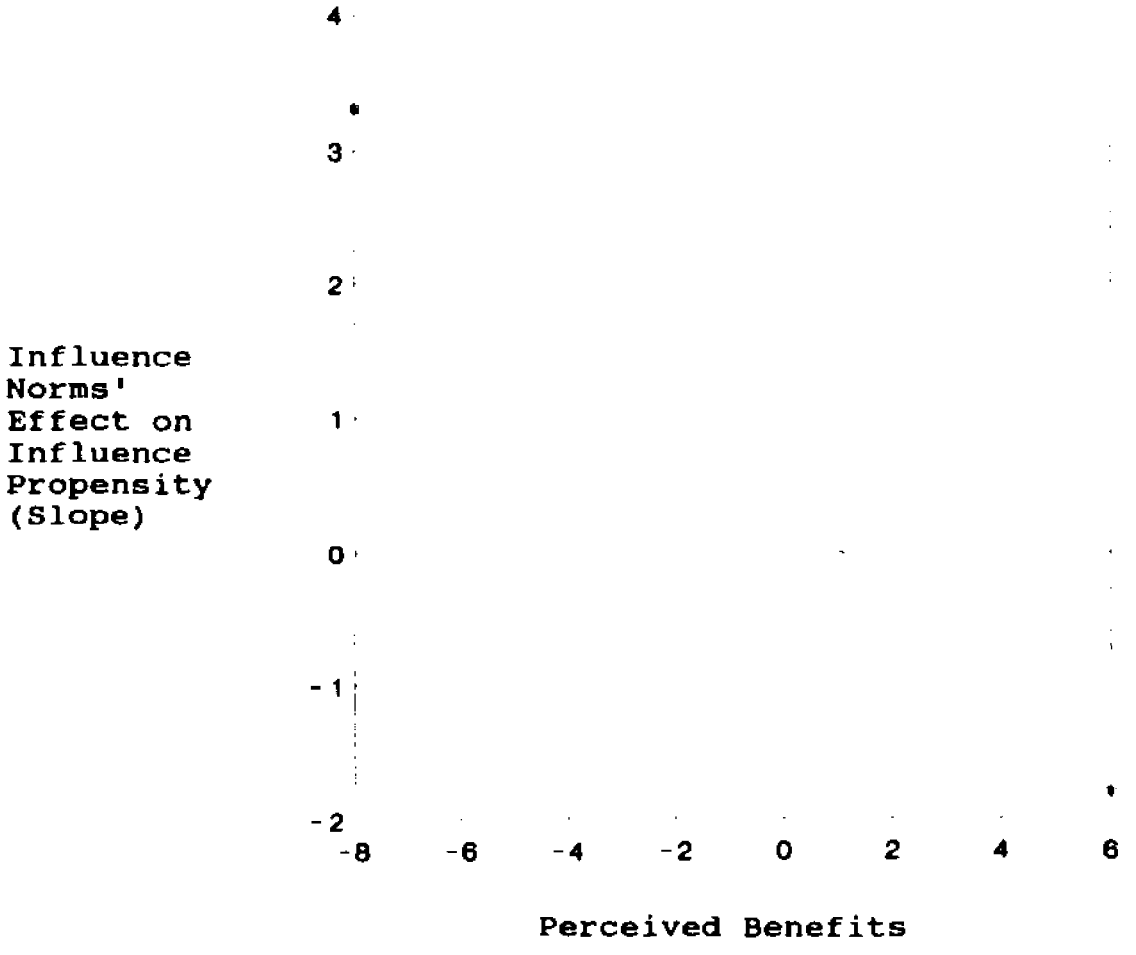
Norms' Contingent Impact on Influence Propensity =
.41 - .37(benefits) (13)

Solving equation 13 for the perceived benefits variable results in an inflection point of 1.13. At this point, the influence norms variable has no impact on influence propensity. Figure 5 depicts the relationship between influence norms and influence propensity along the centered range of the perceived benefits variable. When the level of perceived benefits is less than 1.13, the stronger the influence norms, the greater the influence propensity. Indeed, it was expected that strong influence norms would stimulate influence propensity. When the degree of perceived benefits is greater than 1.13 however, the stronger the influence norms the lower the influence propensity. This finding, that a strongly felt obligation to influence sometimes inhibits influence propensity, was unexpected.

From this analysis, it can be concluded that the predictors have a nonmonotonic impact on influence

Figure 5

The Impact of Perceived Benefits on the Relationship Between Influence Norms and Influence Propensity



propensity. Thus, while influence propensity is greatest at the hypothesized point, the impact of the determinants is more complex than anticipated.

Hypothesis 2

Hypothesis 2 posited that the greater the influencer's attribution of a target's dependency on him/her for a particular resource, the greater the influence expected to occur as a result of using that resource. A covariate, the probability of the influencer's preferred vendor being chosen in the absence of attempted influence, was included in the analysis to adjust for differences in pre-influence decision probabilities. Table 4 presents the descriptive statistics for the variables included in this analysis.

The results of the hierarchical regression for testing hypothesis 2 appear in Table 5. As hypothesized, the incremental contribution of resource dependency to a resource's expected influence was statistically significant. Moreover, inspection of the resource dependency term in the regression equation reveals its contribution to be in a positive direction such that the greater the resource dependency, the greater the resource's expected efficacy. Thus, hypothesis 2 is confirmed.

As an interactive effect was detected however, it is useful to specify how the covariate (the influencee's decision probability in the absence of attempted

Table 4

Descriptive Statistics for a Resource's Expected Influence[a]

Variable [Range]	Mean	s.d.	1	2
1. No Action Decision Probability [0-100]	57.03	26.21		
2. Resource Dependency [1-25]	12.02	6.18	.06	
3. Expected Influence [0-100]	61.60	31.19	.18***	.40***

[a]N = 800 as each purchasing manager rated 8 resources.

*p<.05

**p<.01

***p<.001

Table 5

Hierarchical Regression Results for a Resource's Expected Influence[a]

Predictor Variable	R^2	ΔR^2
1. No Action Decision Probability		.03***,b
2. Resource Dependency	.18***	.15***,c
3. No Action x Resource Dependency	.19***	.01**,d

[a]N = 800 as each purchasing manager rated 8 resources.

[b]Expected Influence = 49.49*** + .21***(No Act)

[c]Expected Influence = 27.84*** + .18***(No Act) + 1.95***(Dependency)

[d]Expected Influence = 31.07*** + .09(No Act) + 1.68***(Dependency) + .01**(No Act X Dependency)

*p<.05

**p<.01

***p<.001

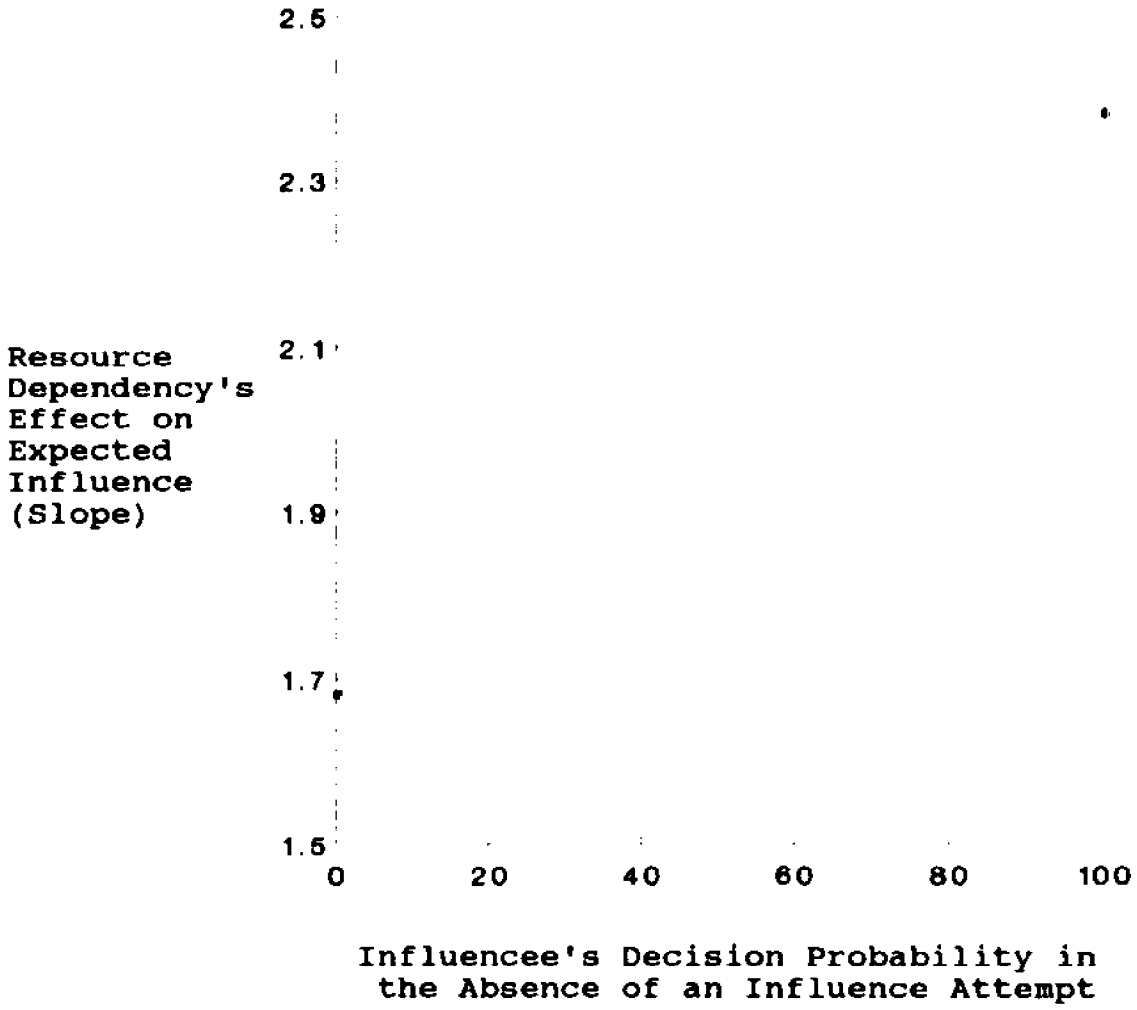
influence) is interacting with resource dependency. As noted by Schoonhoven (1981), by finding the partial derivative of a criterion variable with respect to its predictor, the latter's contingent contribution may be identified. In this case, the partial derivative of expected influence with respect to resource dependency is:

Dependency's Contingent Impact on Expected Influence =
1.68 + .01(No Act) (14)

Solving equation 14 for the covariate results in a value of -242.46. This is the monotonicity point. Specifically, when the probability of the influencer's preferred vendor being chosen in the absence of an influence attempt is -242.46, resource dependency has no impact on a resource's expected efficacy. As this point lies outside the covariate's range [0-100], resource dependency's contribution to expected influence is monotonic. Figure 6 depicts the relationship between resource dependency and expected influence along the covariate's range. The greater the probability of the influencee selecting the purchasing manager's preferred vendor in the absence of an influence attempt, the greater the contribution of resource dependency to expected influence. Thus, the covariate affects the intensity of the relationship between resource dependency and expected influence but not the directionality.

Figure 6

The Impact of the Influencee's Decision Probability in the Absence of an Influence Attempt on the Relationship Between Resource Dependency and Expected Influence



Hypothesis 3

Hypothesis 3 examined whether aggregate resource dependency contributes to the expected success of influencing strategies in which resources are not actually deployed (issuing a directive and reasoning). Once again, to offset differences in pre-influence probability levels, a covariate measuring the probability of the influencer's preferred vendor being chosen in the absence of attempted influence was included in the analysis. Table 6 presents the descriptive statistics for the included variables. Overall, reasoning was perceived to be a more effective means of influence than a directive.

In testing the hypothesis, two hierarchical regressions were performed, with the results appearing in Table 7. In the first, the expected success of issuing a directive was the criterion variable. As hypothesized, aggregate resource dependency was found to be a significant predictor of a directive's expected success. Specifically, the greater the aggregate resource dependency, the greater the expected success of a directive. As no interaction with the covariate was detected, the contribution of aggregate resource dependency to the expected success of a directive is constant. For the expected success of reasoning however, aggregate resource dependency did not emerge as a significant predictor. Thus, hypothesis 3 receives mixed support.

Table 6

Descriptive Statistics for Expected Success of a Directive and Reasoning[a]

Variable [Range]	Mean	s.d.	1	2	3
1. No Action Decision Probability [0-100]	57.03	26.32			
2. Aggregate Dependency [42-157]	96.10	24.56	.13		
3. Expected Success of A Directive [0-100]	38.30	34.31	.34***	.27**	
4. Expected Success of Reasoning [0-100]	77.63	18.02	.23*	.21*	.38***

[a]N = 100

*p<.05

**p<.01

***p<.001

Table 7

Hierarchical Regression Results for the

Expected Success of A Directive and Reasoning[a]

	Directive		Reasoning	
Predictor Variable	R^2	ΔR^2	R^2	ΔR^2
1. No Action Decision Probability		.12***,b		.05*,d
2. Aggregate Dependency	.17***	.05*,c	.09*	.03
3. No Act x Agg Depend	.17***	.00	.09*	.00

[a]N = 100

[b]Expected Success = 12.89 + .45***(No Action)

[c]Expected Success = -15.85 + .41**(No Action) + .32*(Dependency)

[d]Expected Success = 68.66*** + .16*(No Action)

*p<.05

**p<.01

***p<.001

Hypothesis 4

Hypothesis 4 focused on aggregate resource dependency's contribution to the expected success of using multiple resources as a means of influence. As with the two previous hypotheses, a covariate measuring the probability of the influencer's preferred vendor being chosen in the absence of attempted influence was included in the analysis. Table 8 contains the descriptive statistics of the included variables while the results of the hierarchical regression used in testing the hypothesis appear in Table 9. Aggregate resource dependency was found to significantly contribute to the expected success of using multiple resources. Moreover, given the positive sign of its regression coefficient, the greater the aggregate resource dependency, the greater is the expected success of using multiple resources. Thus, hypothesis 4 is confirmed. As no interaction with the covariate was detected, the contribution of aggregate resource dependency to the expected success of using multiple resources is constant.

Hypothesis 5

Hypothesis 5 examined whether an influencer considers the ratio of the probable outcome of an influence attempt and its associated cost to the probable outcome and cost of not influencing when evaluating whether to use a particular influence strategy. Table 10 presents both the descriptive statistics and the results of the regression

Table 8

Descriptive Statistics for Expected Success of Using Multiple Resources[a]

Variable [Range]	Mean	s.d.	1	2
1. No Action Decision Probability [0-100]	57.03	26.32		
2. Aggregate Dependency [42-157]	96.10	24.56	.13	
3. Expected Success of Using Multiple Resources [0-100]	64.84	26.18	.31**	.42***

[a] N = 100

*p<.05

**p<.01

***p<.001

Table 9

Hierarchical Regression Results for

Expected Success of Using Multiple Resources[a]

Predictor Variable	R^2	ΔR^2
1. No Action Decision Probability		$.10^{**,b}$
2. Aggregate Dependency	$.25^{***}$	$.15^{***,C}$
3. No Action x Aggregate Dependency	$.26^{***}$	.01

[a] N = 100

[b] Expected Success = 47.24^{***} + $.31^{**}$(No Act)

[c] Expected Success = 10.30 + .26(No Act) + $.42^{***}$(Dependency)

$^{*}p<.05$

$^{**}p<.01$

$^{***}p<.001$

Table 10

Descriptive Statistics and Regression

Analysis for A Strategy's Likelihood of Use[a]

Variable [Range]	Mean	s.d.	R^2
1. Subjective Success-Cost Ratio [-.35 to .50]	.01	.06	
2. Use Likelihood [0-100]	13.76	23.86	.02***,b

[a]N = 700 as each purchasing manager rated 7 strategies.

[b]Use Likelihood = 12.88*** + 60.19***(Ratio)

*p<.05

**p<.01

***p<.001

analysis. The results support hypothesis 5 as the greater the subjective success-cost ratio, the greater the likelihood that a particular strategy will be used. Although statistically significant due in part to its sample size (N=700), this ratio accounts for a limited amount of variance in an influence strategy's likelihood of use. Indeed, other variables may better predict the selection of an influence strategy.

Hypothesis 6

Hypothesis 6 examined the purchasing manager's effectiveness in influencing his/her target. It posited that the more influence approaches used, the greater the influence. As with the other hypotheses in which the criterion variable represents change, the probability of the influencee selecting the influencer's preferred vendor in the absence of attempted influence was entered into the regression equation as a covariate. Table 11 presents the descriptive statistics for the variables used in the analysis while Table 12 includes the results of the hierarchical regression used to test the hypothesis. Hypothesis 6 is supported as the results indicate that the greater the number of influence approaches used, the greater the influence.

An interaction was detected however, between the covariate (the influencee's decision probability in the absence of attempted influence) and the number of influence approaches used. Employing Schoonhoven's (1981)

Table 11

Descriptive Statistics for Interpersonal Influence[a]

Variable [Range]	Mean	s.d.	1	2
1. No Action Decision Probability [0-100]	57.03	26.32		
2. Influence Approaches [0-3]	2.23	1.05	-.02	
3. Interpersonal Influence [1-5]	3.37	1.08	.20	.56***

[a]N = 81

*p<.05

**p<.01

***p<.001

Table 12

Hierarchical Regression Results for

Interpersonal Influence[a]

Predictor Variable	R^2	ΔR^2
1. No Action Decision Probability		.04
2. Influence Approaches	.36***	.32***,b
3. No Action x Influence Approaches	.40***	.04*,c

[a] N = 81

[b] Interpersonal Influence = .45*** + .01*(No Act) + .61***(Approaches)

[c] Interpersonal Influence = .54 + .03**(No Act) + 1.03***(Approaches) - .01*(No Act X Approaches)

*p<.05

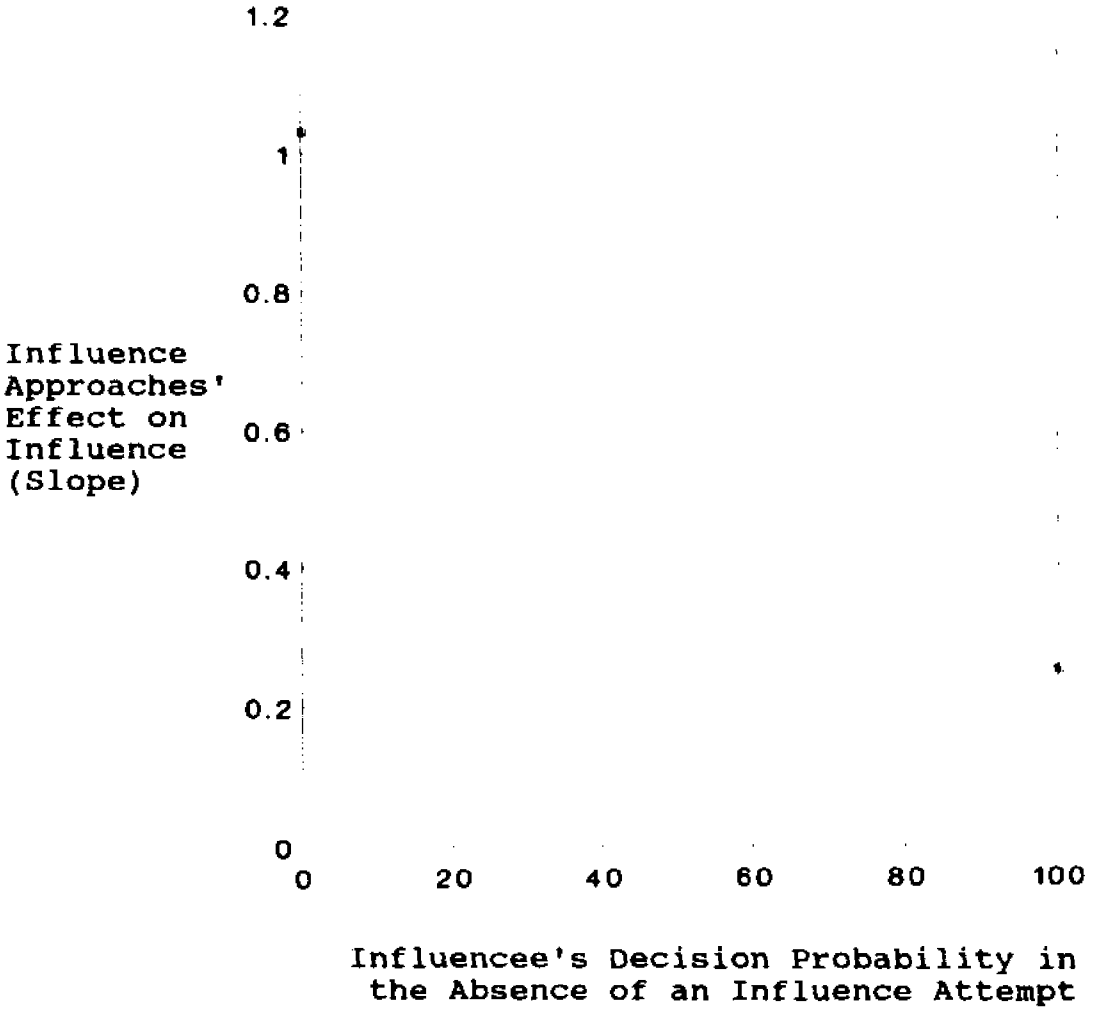
**p<.01

***p<.001

monotonicity analysis procedure utilized earlier reveals that influence attempts have no effect when the probability of selection in the absence of an attempt is 132.35. As this point is outside the covariate's range [0-100], the impact of influence approaches is monotonic. Figure 7 depicts the relationship between the number of influence approaches used and influence across the covariate's range. Specifically, the greater the probability of the influencee selecting the influencer's preferred vendor in the absence of an influence attempt, the weaker the relationship between the number of influence approaches used and influence. Thus, the covariate affects the intensity of the relationship but not the directionality.

Figure 7

The Impact of the Influencee's Decision Probability in the Absence of an Influence Attempt on the Relationship Between Influence Approaches and Interpersonal Influence



Chapter VI

Discussion

This chapter discusses the contributions and limitations of the research. While not generating the depth of information of a case study, this study of 100 purchasing managers from 21 firms more than offsets this limitation through its gathering of precise information, statistical analysis, and generalizability of results. Moreover, while environmental control is limited, examining actual purchase decisions generates results more directly applicable to the workplace than decision-making experiments. Furthermore, focusing on in-process as opposed to past decisions or purchases in general adds to the data's validity. This is especially true as a follow-up survey was used to track the decision.

Regarding the data collection procedure, the use of personal interviews facilitated the gathering of sensitive information generally inaccessible by survey. Common method bias is minimal in this study as data were gathered at two different times by three means: personal interview, a survey accompanying the interview, and a follow-up survey. Additionally, some of the measures were computed from the data thereby further reducing common method variance.

Another strength of this study is its data analysis. Hierarchical regression precisely partitions variance and enables a comparison among simple and increasingly complex

regression models. When necessary, predictor variables were centered to reduce multicollinearity among product terms so as to better detect interactions. This study also undertook monotonicity analyses on all significant interactions as a means of better specifying their form. Additionally, to avoid the statistical problems associated with the use of change scores, pre-influence measures were employed as covariates to better determine a criterion variable's variance.

Contributions

Overall, the findings support the proposed influence process model. The study contributes toward understanding: the determinants of influence propensity, how resources are evaluated as potential sources of influence, the process by which influence strategies are selected, and the efficacy of influencing behaviors.

Influence Propensity. While theorists have posited that the propensity to influence may be a rational decision, the manifestation of a psychological need, or the result of social pressure, none of the determinants by themselves adequately predicts influence propensity. This finding also varies with the limited prior experimental research addressing the causes of influence propensity. While direct effects may be detectable under highly controlled conditions, in this study of purchasing managers and actual in-process decisions, such effects were not found. This is perhaps due to the decision's

importance and the presence of multiple interacting determinants. Moreover, the behavior of subjects in an experiment may differ from professionals who regularly engage in such decisions.

While perceived benefits, perceived decision outcome risk, the need for power, and influence norms do not directly affect influence propensity, they nonetheless have a contingent impact. Although interactions among influence propensity determinants were hypothesized, the form of the interactions was unanticipated. Specifically, the purchasing manager's need for power interacts with perceived decision outcome risk while perceived benefits interacts with influence norms.

Addressing the interaction between the purchasing manager's need for power and perceived decision outcome risk, the findings indicate that the amount of risk an individual is willing to bear in supporting a prospective vendor is dependent upon the risk-taker's need for power. Specifically, when the purchasing manager's need for power is high, the greater the perceived decision outcome risk, the lower the influence propensity. When the purchasing manager's need for power is low however, the reverse is true. That is, the greater the perceived decision outcome risk, the greater the influence propensity.

According to the findings, a purchasing manager with a high need for power has a greater influence propensity when the decision has low risk. The high certainty of the

vendor performing satisfactorily may generate a sense of control which a high need for power purchasing manager finds appealing. In addition, a high decision success rate may be used by the purchasing manager to convince others that he/she merits greater control. As the decision's riskiness increases however, the likelihood of such an individual actively participating in the decision declines. A high need for power purchasing manager's aversion to endorsing a risky vendor may be due to a fear of losing power. Should the endorsed vendor perform inadequately, the purchasing manager's ability to influence future decisions could be diminished. Moreover, being unable to ensure that a vendor will perform at an acceptable level may imply a lack of control which a high need for power purchasing manager might find unsettling.

For a purchasing manager with a low need for power however, such concerns are less evident as the greater the perceived decision outcome risk, the greater the influence propensity. As the cost to the firm of poor vendor selection can be great, the low need for power purchasing manager may believe his/her participation is most needed in risky decisions. Conversely, the low need for power purchasing manager may consider it unnecessary to exert much effort supporting a highly qualified vendor as other participants have likely made the same choice. Also, if many qualified vendors exist, the cost to the firm of not selecting the best vendor is low. In such an instance, a

low need for power purchasing manager may yield to the vendor preferences of others while reserving influence attempts for risky decisions.

The presence of an interaction between perceived decision outcome risk and the purchasing manager's need for power can be applied toward improving the purchasing manager's involvement in vendor selection decisions. Based on the findings, a risky purchase, one in which the probability of the vendor performing inadequately is high, should be assigned to a low need for power purchasing manager as his/her influence propensity in such a situation tends to be high. Conversely, responsibility for a low-risk purchase should be given to a high need for power purchasing manager as his/her influence propensity tends to be high for such decisions. This presumes however, that a purchasing manager's need for power is known and the firm has the flexibility to make such assignments. Note also, that while such matching will generally enhance influence propensity, two other interacting determinants also impact upon influence propensity.

The other second-order effect contributing to influence propensity is the interaction between perceived benefits and influence norms. The two variables are inversely related such that the greatest contribution to influence propensity occurs when one is high and the other is low. Thus, when influence norms are weak, the greater

the perceived benefits, the greater the influence propensity. As there is little felt obligation to influence, the purchasing manager is free to determine his/her involvement in vendor selection based on incentives. Purchases with high benefits will be actively pursued while those with few benefits will be neglected. Such behavior could be detrimental to the firm as it may prefer its purchasing managers to be actively involved in all decisions.

Alternatively, when perceived benefits are low, the stronger the influence norms, the greater the influence propensity. In the absence of incentives, strong norms generate consistently high influence propensity as the purchasing manager believes he/she has a responsibility for ensuring that the best vendor is selected.

Knowledge of an interaction between perceived benefits and influence norms can be applied toward enhancing the purchasing manager's involvement in vendor selection decisions. If influence norms are weak and influence is not being rewarded, the most effective strategy for improving influence propensity through these two variables would be to maintain either influence norms or perceived benefits at a low level while striving to raise the other to a high level.

In terms of strengthening norms, Feldman (1984) suggests that norms may be established through explicit statements by supervisors or powerful co-workers. Thus, a

purchasing director can communicate to his/her staff that purchasing managers are expected to be actively involved in vendor decisions and it is their responsibility to ensure that the most qualified vendor is selected. Feldman also notes that critical events can set a precedent which establishes a norm. A purchasing director may therefore choose to focus attention on purchases in which the purchasing manager's involvement is instrumental in the decision's success. A third means of establishing norms according to Feldman is primacy. As early behaviors tend to be repeated, a purchasing director should encourage new agents to be actively involved in decisions. Feldman notes that a fourth means by which norms develop is by carry-over from previous experiences. Thus, purchasing departments can recruit members who have previously demonstrated assertiveness in group decision-making. Individuals with a strong professional orientation toward purchasing will also likely expect to be actively involved in decisions.

There are however, limits on the ability to change norms, particularly those pertaining to interdepartmental decision-making. Although a purchasing director may strive to create a more pro-active department, the purchasing managers themselves, as well as individuals from other departments who are satisfied with the status quo, may undermine change efforts. Moreover, altering norms is likely to be time-consuming and could have

unintended negative consequences.

Rather than attempting to strengthen influence norms, a firm may prefer to focus on increasing influence propensity through added benefits. Effective influencing behavior can be incorporated into a purchasing manager's performance appraisal. Rewards such as recognition, praise, autonomy, and more challenging assignments, as well as economic incentives can be given to those who effectively ensure that the best vendor is adopted.

As with influence norms however, there are problems associated with attempting to increase perceived benefits. Efforts to increase perceived benefits may be offset by others who prefer passive purchasing managers. Such individuals may discourage purchasing manager involvement in vendor selection decisions and reward compliance. Moreover, a purchasing director intent on rewarding influence may lack sufficient information to evaluate a purchasing manager's impact on interdepartmental decisions.

If a choice can be made between high benefits or strong norms the latter may be preferable from a cost standpoint. Moreover, the combination of strong influence norms and low perceived benefits results in a consistently high influence propensity. Note however, that while such actions will generally enhance influence propensity, the interaction between the purchasing manager's need for power and perceived decision outcome risk also has an

impact.

Evaluation of Influence Alternatives. This study also contributes toward understanding how influence alternatives are evaluated. While resource-dependency theories of power explain why one individual is powerful relative to another, this study indicates that the influencers themselves consider resource dependency when evaluating a resource's influencing potential. Overall, it was found that the more an influence target is perceived by the purchasing manager as dependent on him/her for a particular resource, the greater the resource's expected effectiveness as a means of influence.

This finding differs from resource-dependency theory, however, in that the probability of the purchasing manager's preferred vendor being selected by the influence target in the absence of attempted influence affects the relationship between resource dependency and the resource's expected efficacy. Specifically, the relationship is most positive when the pre-influence probability is high. Thus, if the purchasing manager is somewhat confident that the influencee will behave in the desired manner without any influence being attempted, but wishes to ensure that the desired behavior will occur, resource dependency is a primary consideration in evaluating which resources will result in the greatest influence. If the probability of the influencee selecting the influencer's preferred vendor in the absence of

attempted influence is low however, resource dependency's contribution to a resource's expected efficacy is weaker. This difference could be due to a low pre-influence probability indicating that the influence target is already committed to another vender or strongly opposes the influencer's preferred vendor. Changing the influence target's vendor preference would likely require means exceeding the influencing potential of any single resource.

In addition to the evaluation of individual resources, dependency also impacts upon the influencing potential of a directive. Specifically, the greater the aggregate resource dependency, the greater is the expectation that the directive will be obeyed. This effect is constant regardless of the pre-influence probability level. Based on these findings, enhancing a purchasing manager's control over resources valued by others will strengthen his/her confidence in issuing directives. This could be accomplished by either assigning the purchasing manager exclusive control over a few valued resources or moderate control over many resources.

Aggregate resource dependency also contributes to the expected success of using resources as a means of influence. The greater the aggregate resource dependency, the greater is the purchasing manager's confidence in using resources. This effect is constant regardless of

the probability of the influencer's preferred vendor being selected in the absence of attempted influence. This result is consistent with resource-dependency theory as high dependency enhances the influencer's confidence in using resources to attain desired outcomes.

While aggregate resource dependency affects the expected success of both a directive and resource utilization, it was not found to be a significant predictor of expected reasoning success. Purchasing managers apparently consider other factors to be more important determinants of whether a reasoning attempt will be effective. Thus, although a purchasing manager may have limited power over others in terms of resource dependency, he/she believes that influence can still be achieved through reasoning. This finding demonstrates a limitation of resource-dependency theories of power. While resource dependency may be a sufficient source of power, it is not perceived as necessary in order for influence to occur.

Influence Strategy Selection. When selecting an influence strategy, the results indicate that consideration is given not only to the improvement in the probability of the influencee choosing the influencer's preferred vendor, but also the costs associated with the influence attempt. Thus, deciding how to influence is somewhat utilitarian as purchasing professionals are more likely to select cost-effective strategies. However,

given that the ratio of expected success to cost explains but a small percentage of variance in a strategy's likelihood of use, factors beyond the scope of this study undoubtedly contribute to the decision. For example, although issuing a directive may be more efficient than reasoning, a purchasing manager might feel uncomfortable with this approach. Also, organizational norms may encourage a specific influence approach. For an organization which stresses teamwork and cooperation, reasoning may be the preferred means of influence. Another determinant in choosing an influence strategy could be the quality of the relationship between the influencer and influencee. If the purchasing manager and influence target have worked well together for many years, reasoning might be preferred. The organizational climate might also affect the choice of an influence strategy. For example, organizations with high formalization may encourage directives. Nonetheless, despite such additional factors, purchasing managers do appear to give some consideration to an influence strategy's success-cost ratio.

Firms desiring more cost-effective influencing behavior should encourage contingently chosen influence strategies. For instance, a purchasing manager may typically use reasoning to influence the vendor preferences of others. While this may generally be an effective approach, it may not always be the most cost-

effective option. In a situation in which time is critical and the influence target is willing to abide by the purchasing manager's decision, issuing a directive would likely be more cost-effective than reasoning.

Influencing Behavior. A final result of note is that the greatest reported influence occurs when multiple approaches are used. Multiple influence approaches place greater pressure on the influencee, convey resoluteness, and give the influencee greater justification to concur. The finding that the success of influencing behavior is greatest when the probability of the influencee selecting the influencer's preferred vendor in the absence of attempted influence is low, supports the conceptualization of influence as an incremental probability change. Thus, the success of any influence attempt is relative to the target's pre-existing state.

An influencer committed to changing an influencee's decision probability should consider using all available influence means rather than relying on any single one. Thus, if the influencer has had little success reasoning with an influencee, taking a different approach would be superior to continued reasoning. Organizations desiring their purchasing managers to be more influential should ensure that they have the authority and resources necessary to employ multiple approaches.

Limitations

As this study's conceptualization of influence was based on the premise that a person's influence varies with the target and the issue, influence was measured in the context of a specific individual and type of purchase decision. Because a purchasing manager reported influencing his/her target to support a particular vendor for this purchase, it cannot be concluded that he/she will be equally influential with respect to other purchases, individuals, or issues. Similarly, it would be inappropriate to use these results as a basis for evaluating whether a firm has an influential purchasing department.

Another limitation of this research is the inability to prove that the influencer did indeed cause the reported change in the influencee. Even though an influencer may have gotten his/her own way, some factor beyond the influencer's control might have caused the change in the influencee's decision probability. Moreover, although the influencer may believe he/she was responsible for altering the influence target's vendor preference, the influencee might disagree. This does not imply however, that the influencee's perception is necessarily accurate. A highly skilled influencer can have an effect on others without the target being aware that influence has occurred. As noted in Chapter I, establishing causality has been problematic in power/influence research.

A further limitation is that the influence process is examined solely from the perspective of the purchasing manager. For instance, how an influence target decides whether to comply with the purchasing manager is not addressed. Also, the study is limited to unidirectional influence attempts by the purchasing manager over a period of limited duration. In actuality, while the purchasing manager is trying to influence the target, the target may also be attempting to influence the purchasing manager. Moreover, the study is restricted to the short-term effects of influence. Long-term reactions to influence attempts such as sleeper effects are not measured.

This study is also limited in that it does not explicitly test the model's sequence other than measuring influence propensity, resource evaluation, and strategy selection weeks before subsequent influencing behavior and effectiveness. Despite such limitations however, this study contributes toward a better understanding of the influence process.

Future Research

Given this study's contributions and limitations, future research should strive toward replicating the findings, further refining the methodology, determining the extent of the results' generalizability, and expanding understanding of the influence process. Concerning the former, replicating this research would be useful in establishing the consistency of the findings. Beyond

simply repeating this study however, future research should further refine the methodology in order to improve measurement precision and better establish causality. For instance, although the reliabilities of the scales measuring the need for power, influence norms, and perceived benefits were adequate, improvement would enable their impact on influence propensity to be more precisely specified. Another refinement would be to further limit the range of vendor selection decisions by focusing on the purchase of a specific class of item, such as raw materials, and an influence target from a particular department, such as production. Greater decision standardization would lessen environmental variability thereby better isolating the purchasing manager's impact.

In addition to repeating this study based on the present methodology, alternative methodologies should also be developed. Comparable results based on different measures and procedures would strengthen the validity of the findings as they would no longer be dependent upon a single research design.

Determining the extent of the results' generalizability should be another goal of future research. This study can be undertaken with purchasing managers from other industries and different types of buying decisions, as well as non-purchasing personnel and decisions. Indeed, the influence process model proposed and tested in this study is not intended to be limited to

purchasing managers or purchasing decisions.

Future research should also seek to expand understanding of the influence process. For instance, a discriminant analysis could be performed to determine the relative importance of the influence process components. Additionally, future research could test the sequence of events constituting the influence process. Moreover, while this study focused primarily on cognitive components, additional research can study the impact of personality traits and communication skills on the selection and effectiveness of influence strategies.

Knowledge of the influence process can also be enhanced by studying purchasing managers longitudinally over the course of several purchases, types of decisions, and influence targets. By observing purchasing managers in multiple situations, their cognitive and behavioral consistencies can be determined.

Another direction for future study would be to examine the influence process from the perspective of the influence target. In particular, factors which determine whether a target accepts or rejects an influence attempt should be investigated.

Future research can also expand the influence process model to include influence target selection, counter-influence attempts, long-term effects, as well as multiple influencers and targets. Thus, while this study contributes to a better understanding of the influence

process, additional research can provide further evidence and insight.

Appendix: Scales Employed in the Study

Perceived Benefits

Please circle the number which best reflects your agreement with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Actively participating in the formulation of purchasing decisions will advance my career.	1	2	3	4	5
2. The greater my participation in interdepartmental decisions, the more I feel that I am respected by others.	1	2	3	4	5
3. This firm rewards assertiveness.	1	2	3	4	5
4. Effectively communicating my ideas to others gives me a feeling of accomplishment.	1	2	3	4	5
5. In this firm, expressing one's own ideas leads to greater job security.	1	2	3	4	5
6. Taking part in the formulation of purchasing decisions is personally gratifying.	1	2	3	4	5

Need for Power (Steers & Braunstein, 1976: 254)

	Never	Almost Never	Seldom	Some-times	Usually	Almost Always	Always
1. I tend to seek an active role in the leadership of the group.	1	2	3	4	5	6	7
2. I generally avoid trying to influence those around me to see things my way.	1	2	3	4	5	6	7
3. I find myself often organizing and directing the activities of others.	1	2	3	4	5	6	7
4. I strive to gain more control over the events around me at work.	1	2	3	4	5	6	7
5. I strive to be "in command" when I am working in a group.	1	2	3	4	5	6	7

Influence Norms

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is my professional obligation to steer users toward the best supplier.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2. Basically, my job with this firm is to carry out the decisions of others.	1	2	3	4	5
3. If I do not have an impact on the formulation of purchasing decisions, I have failed to perform my job.	1	2	3	4	5
4. I have a professional responsibility to ensure that the best supplier is chosen, regardless of the preferences of others.	1	2	3	4	5
5. Other departments depend on me to find the best possible supplier.	1	2	3	4	5
6. It is my professional responsibility to remain in close contact with other departments.	1	2	3	4	5

Influencer's Extent of Resource Control

To what extent do you think the _____ believes you control each of the following? It does not matter whether or not you actually control a particular purchase factor; what is of interest here is the _____'s beliefs about your control. In responding, please answer on a scale of 1 to 5 in which 1 means the _____ thinks you have no control and 5 signifies that he/she believes you have complete control over this purchase factor.

1	2	3	4	5
No control.				Complete control.

Purchase Factors	Believes You Control
1. Your Working Relationship with the _____	____
2. Purchase Costs of Item	____
3. Delivery Date of Item	____
4. Quality of Item	____
5. _____'s Reception of Specification Information	____
6. _____'s Adherence to Procurement Policies and Procedures	____
7. _____'s Access to Vendors	____
8. The Right to Select the Vendor	____

Influencee's Value of Resource

In terms of this purchase, to what extent do you feel each of the following is important to the _____? Please respond on a scale of 1 to 5 in which 1 means the purchase factor is of little importance to the _____ while 5 signifies this factor is of great importance to him/her.

1	2	3	4	5
Of little importance to him/her.				Of great importance to him/her.

Purchase Factors	Amount of Importance
1. His/Her Working Relationship with You	____
2. Purchase Costs of Item	____
3. Delivery Date of Item	____
4. Quality of Item	____
5. Reception of Specification Information	____
6. Adherence to Procurement Policies and Procedures	____
7. Access to Vendors	____
8. The Right to Select the Vendor	____

Expected Influence due to Single Resource Dependency

Conceptualized as the influencee's decision probability after the influencer has attempted to influence on the basis of a particular resource less the influencee's decision probability in the absence of an

influence attempt. Both measures are presented below.

Influencee's Decision Probability After Influence Attempt.

What impact would each of the following have if you were to use it as a basis for influencing the _____. Please tell me the probability (Chances in 100) that the vendor whom you prefer will also be preferred by the _____ after you have sought to influence him/her through the use of each.

Purchase Factors	_____'s Agreement with You After Influence Attempt
1. Your Working Relationship with the _____	____
2. Purchase Costs of Item	____
3. Delivery Date of Item	____
4. Quality of Item	____
5. _____'s Reception of Specification Information	____
6. The Enforcement of Procurement Policies and Procedures	____
7. _____'s Access to Vendors	____
8. Enforcing Your Right to Select the Vendor	____

Influencee's Decision Probability in the Absence of an Influence Attempt.

If you were to actually use any of these strategies or a combination of strategies in order to influence the _____'s vendor preferences, what would be the probability (Chances in 100) that your preferred vendor will also be preferred by the _____ after you have attempted to influence him/her through each of these approaches?

Influence Strategies	Probability of _____'s Selection of your Preferred Supplier
1.	_____
2.	_____
3.	_____
4.	_____

Influence Strategies	Probability of _____'s Selection of your Preferred Supplier
5.	_____
6.	_____
7.	_____
8. Take no action.	_____

Expected Success due to Aggregate Resource Dependency

Conceptualized as the influencer's perception of what the influencee's decision probability would be after an influence attempt less the influencer's perception of the influencee's decision probability in the absence of an attempt.

If you were to actually use any of these strategies or a combination of strategies in order to influence the _____'s vendor preferences, what would be the probability (Chances in 100) that your preferred vendor will also be preferred by the _____ after you have attempted to influence him/her through each of these approaches?

Influence Strategies	Probability of _____'s Selection of your Preferred Supplier
1.	_____
2.	_____
3.	_____
4.	_____
5. Use reasoning to change his/her attitudes toward vendors.	_____
6. Use the influence sources at your disposal.	_____
7. Issue a directive that a specific vendor be used.	_____
8. Take no action.	_____

Expected Success of Influence Strategies

Conceptualized as the influencer's estimation of what the influencee's postinfluence decision probability would

be after using a given influence strategy less the decision probability in the absence of any influence attempt.

If you were to actually use any of these strategies or a combination of strategies in order to influence the _____'s vendor preferences, what would be the probability (Chances in 100) that your preferred vendor will also be preferred by the _____ after you have attempted to influence him/her through each of these approaches?

Influence Strategies	Probability of _____'s Selection of your Preferred Supplier
1. Issue a directive that a specific vendor be used, use the influence sources at your disposal, and use reasoning to change his/her attitudes toward vendors.	_____
2. Use the influence sources at your disposal and reasoning to change his/her attitudes toward vendors.	_____
3. Issue a directive and use reasoning to change his/her attitudes toward vendors.	_____
4. Issue a directive and use the influence sources at your disposal.	_____
5. Use reasoning to change his/her attitudes toward vendors.	_____
6. Use the influence sources at your disposal.	_____
7. Issue a directive that a specific vendor be used.	_____
8. Take no action.	_____

Estimated Costs of Influence Strategies

The purchasing manager was asked to rate the costliness of the three basic influence strategies and the option of taking no action.

As you know, influencing others may have disadvantages that can not be measured in strict financial terms. One such disadvantage might be a lessened ability to influence future decisions. Another could be the time expended in the influence attempt. Please indicate the degree of costliness that you perceive to be associated with the successful use of each of the following influence strategies. A strategy is considered successful if the _____ prefers the vendor whom you prefer after the influence attempt has been made. In responding please answer on a scale of 1 to 5 in which 1 means that this particular cost is low and 5 signifies that this particular cost is high.

1 2 3 4 5
Low. High.

Disadvantages of Influence

Influence Strategies	Diminished Ability to Influence Future Decisions	Time Expended
1. Issue a directive that specific vendor be used.	____	____
2. Use the influence sources at your disposal.	____	____
3. Use reasoning to change attitudes toward vendors.	____	____
4. Take no action.	____	____

Now, suppose that you attempt to influence the _____ and he/she disagrees with your vendor preference. On the same 1 to 5 scale, please indicate the degree of costliness that you perceive to be associated with the unsuccessful use of each of the following influence strategies. A strategy is considered unsuccessful if the _____ does not prefer the vendor whom you prefer after the influence attempt has been made.

1 2 3 4 5
Low. High.

	Disadvantages of Influence	
Influence Strategies	Diminished Ability to Influence Future Decisions	Time Expended
1. Issue a directive that specific vendor be used.	____	____
2. Use the influence sources at your disposal.	____	____
3. Use reasoning to change attitudes toward vendors.	____	____
4. Take no action.	____	____

Use Likelihood

For each influence strategy, please indicate the probability (Chances in 100) that you will actually use this approach.

Influence Strategy	Probability of Use
1. Issue a directive that a specific vendor be used.	_____
2. Use the influence sources mentioned previously.	_____
3. Use reasoning to change his/her attitudes toward vendors.	_____

Influencer's Issuance of a Directive

Did you make a direct statement indicating that a specific vendor be chosen or that a firm be eliminated from consideration?
(Please answer "yes" or "no.") _____

Influencer's Resource Utilization

Did you attempt to influence him/her in any way through the actual use of any of the following? (Please check those which apply.)

[ ] 1. Your Working Relationship with the _____
[ ] 2. Purchasing Cost Control Pressure on Item to be Purchased
[ ] 3. Emphasis on Delivery Date of Item to be Purchased
[ ] 4. Emphasis on Quality of Item to be Purchased
[ ] 5. Selective Specification Information
[ ] 6. Pressure for Adherence to Procurement Policies and Procedures
[ ] 7. Access to Vendors
[ ] 8. Your Right to Select the Vendor

Reasoning by Influencer

Did you provide him/her with specific reasons why one vendor would be better than another?
(Please answer "yes" or "no.") _____

Interpersonal Influence

Since the interview, how much do you feel you have influenced the vendor preference of the _____?

1	2	3	4	5
Little or no influence.				Very Great influence.

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