

# Behavioral Antecedents to Intrinsic Motivation in Capital Equipment Exchange Relationships

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## Abstract

*This study utilizes cognitive evaluation theory to assess interorganizational relationships. Sales personnel's influence strategies and opportunistic behaviors are cast as antecedent to purchasers' intrinsic motivation for the exchange. Influence strategies are classified based upon whether sanctions (mediated influence) or information (non-mediated influence) are employed to gain compliance. Ninety-four mainframe computer users reported on their working relationships with multiple marketing personnel. The results suggest that non-mediated influence raises intrinsic motivation while mediated influence and opportunism have a negative impact upon motivation.*

## Introduction

The complexity of many business-to-business exchanges requires the involvement of multiple parties on either side of the channel dyad. High technology products, for example, involve teams of buyers and sellers who interact to streamline the dissemination of products, information, and services (Shanklin and Ryans 1987). Buying organizations in these arrangements consist of committees designed to evaluate purchasing options (Hutt, Johnston, and Rochetto 1985). Similarly, selling teams consist of sales and technical professionals that participate throughout the sales process (Dunn and Thomas 1986).

Although one may devise political and economic structures to facilitate transactions between these groups, it is often the activity of individuals that secures performance in relationships. This study focuses on the impact of interorganizational interactions upon relationship quality. Interfirm influence strategies (Frazier and Summers 1984) and opportunism (John 1984; Williamson 1985) are cast as antecedent to intrinsic motivation for the exchange. Intrinsic motivation refers to an individual's desire for autonomy and competency. Research within social psychology has illustrated that autonomy and competency are associated with a high quality working environment (Deci and Ryan 1985). This study attempts to augment intra-group research by addressing the impact of interorganizational behaviors upon motivation for exchange relationships.

Prior interfirm influence research (e.g., Frazier and Summers 1984; Ong, Elliott, and Armstrong 1990) has

emphasized the power-dependence framework outlined by Emerson (1962) and enhanced by Raven and Kruglanski (1970). Cognitive evaluation theory is grounded in this paradigm yet emphasizes the motivational bases underlying interpersonal behavior (Deci and Ryan 1985). Moreover, cognitive evaluation theory stresses that the source of interactions must take into account the frame of reference of the target. The source must understand and acknowledge the target's needs, feelings, and attitudes with respect to the situation at hand (Deci, Connell, and Ryan 1989). Thus, the theory offers an extension to power research that embodies the marketing concept for interpersonal interaction.

The context of our research is the interface between marketers and end users of mainframe computers. This setting differs from previous influence strategy research in three ways. First, while most influence studies have addressed relationships between manufacturers and resellers, our study focuses on relationships involving end users of capital equipment. Capital equipment purchasing is a complex buying process involving large financial investments dedicated over an extended period of time (cf. Weitz, Castleberry, and Tanner 1992). The capital equipment vendor addresses the direct demand for products within the purchasing organization while a wholesaler's demand is derived from the needs of ultimate consumers. Thus our context facilitates analysis of influence attempts directed toward organizational consumption rather than derived demand.

Second, there is great variety in the level of depen-

dence between end users and system sellers. One indicator of the variability in dependence is the amount of software written solely to operate under a vendor's unique operating system. To the degree that idiosyncratic operating systems are employed versus industry standards (e.g., UNIX) the system user is more dependent upon the system provider (Blaustain 1992). Recent industry reports suggest that there is great variation in the acceptance of these standards (McWilliams and Schwartz 1990, Poole 1990).

Third, the complexity of technology transfer between firms demands that groups comprised of boundary personnel participate in transacting. In contrast to previous studies in which single individuals provided the link between organizations (e.g., Kale 1986), this analysis addresses the interface between multiple parties on the boundary of the firm. These individuals come together from distinct departments to coordinate the exchange. As a consequence, the survey analysis must be expanded to obtain reports on multiple relationships.

The objective of this study is to develop an understanding of the impact of vendor behaviors upon the buyer's perception of the quality of working relationships. Using cognitive evaluation theory (Deci and Ryan 1985) these behavior classes are treated as determinants of intrinsic motivation.

### Cognitive Evaluation Theory

Cognitive evaluation theory focuses on "the effects of events that initiate or regulate behavior on motivation or motivationally relevant processes" (Deci and Ryan 1985, p. 62). Intrinsic motivation emerges from distinct external events and directs ongoing processes of seeking and attempting optimal challenges. The rewards for engaging in these behaviors are the experiences of autonomy and effectance. When events promote an internal locus of causality (i.e., autonomy) the individual's level of intrinsic motivation is enhanced. Similarly, events that raise the individual's perceived level of competency foster higher levels of intrinsic motivation.

External events have three aspects that may be salient to individuals; informing, controlling, and amotivating. The relative saliency of these aspects alters the individual's intrinsic motivation through their impact upon one's perceived causality and competence.

Informational events are those that facilitate effective interaction with one's environment. An individual who attributes his/her behavior to acquired information does not experience the event as controlling, but attains a sense of autonomy. Subsequent behavior is attributed to internal processing of information regardless of external events and their associated consequences. Successful interaction with the environment attributed to

informational events also enhances one's sense of competence. Informational events thus promote an internal locus of causality and competence which raise the individual's level of intrinsic motivation.

The effect of controlling and amotivating events may be contrasted with informational stimuli. Controlling events are those which are experienced as directing the individual to act in a specified manner. This pressure raises the individual's perceived level of external causality, in turn reducing feelings of autonomy. When the desire for autonomy is not satisfied, intrinsic motivation is deterred. Amotivating events are those which signify that effectiveness cannot be attained. The individual who experiences amotivation incurs feelings of incompetency which undermine intrinsic motivation. Amotivation deters intrinsic motivation not by a reduction in self-determination, but by lowering one's perceived level of competence.

In summary, particular events are perceived as informing, controlling, or amotivating. Informational events have a positive impact on the needs for competency and self-determination. Amotivating events limit competency while controlling events reduce the target's need for self-determination. The degree to which these needs are satisfied determines the level of intrinsic motivation. In the following sections interfirm interactions are treated as external events that affect cognitive evaluations.

### Interorganizational Behavior

#### *Influence Strategies*

Interaction enables individuals in firms to establish task boundaries and standards, disseminate technical knowledge, and promote coordination among exchanging parties. Tedeschi, Schlenker, and Lindskold (1971) developed a typology of the behaviors undertaken to achieve such objectives. Their analysis focused on the content and structure of communication utilized by a "source" firm in an attempt to gain compliance from a "target." In interorganizational research the source of influence is often a supplying firm while the associated buyer is treated as the target (e.g., Kale 1987). The current study adopts a similar perspective.

Influence strategies may be grouped into mediated and non-mediated categories (Tedeschi et al. 1971). The former occurs when a source explicitly provides reinforcements for the desired behaviors (Johnson, Koenig, and Brown 1985). Conversely, non-mediated approaches focus on the desirability of the behavior itself for the target.

Mediated strategies are those which state contingent outcomes of compliance under the direct control of the

source. For example, a sales representative may threaten an account with poorer service if an extended warranty is not purchased. From a cognitive evaluation perspective, these strategies are experienced by the target as controlling. The source's contingent communication shifts the target's perceived "locus of causality" (Deci 1975) toward external events. Hence, the behavior is attributed to the source rather than any intrinsically appealing outcomes (cf. Keith, Jackson, and Crosby 1990). As a consequence, feelings of self-determination are diminished by a sense of external control.

Non-mediated strategies are those which rely on the attractiveness of the desired behavior itself as the motivating force toward compliance. For example, a sales representative may provide detailed product specifications in order to influence a purchase. Non-mediated influence attempts serve essentially as informational stimuli. Because outcomes of one's behavior are perceived by the target to be beyond the source's control, the target views his/her subsequent actions as autonomous. From the target's perspective, the source merely serves as a resource for information.

*Opportunistic Behavior*

Opportunism refers to "incomplete or distorted disclosure of information, especially to mislead, distort, disguise, obfuscate, or otherwise confuse" (Williamson 1985, p. 47). For example, a sales representative may overstate performance capabilities of a product to influence its purchase. The notion that individuals act in this manner is a fundamental assumption of institutional economics.

Within the context of cognitive evaluation theory, a supplier's opportunistic behavior represents amotivational events that deter competence for the buyer. Amotivation occurs when an individual receives negative feedback or consistently experiences failure. Amotivation is often accompanied by feelings of helplessness and results in lower levels of intrinsic motivation. Opportunism by one's trading partner provides negative reinforcement that undermines one's intrinsic motivation toward the exchange.

In summary, influence strategies and opportunism are external stimuli which may affect the individual's perceptions of the effectiveness of the exchange. The relation-

ship among these activities and their impact upon intrinsic motivation is subsequently outlined.

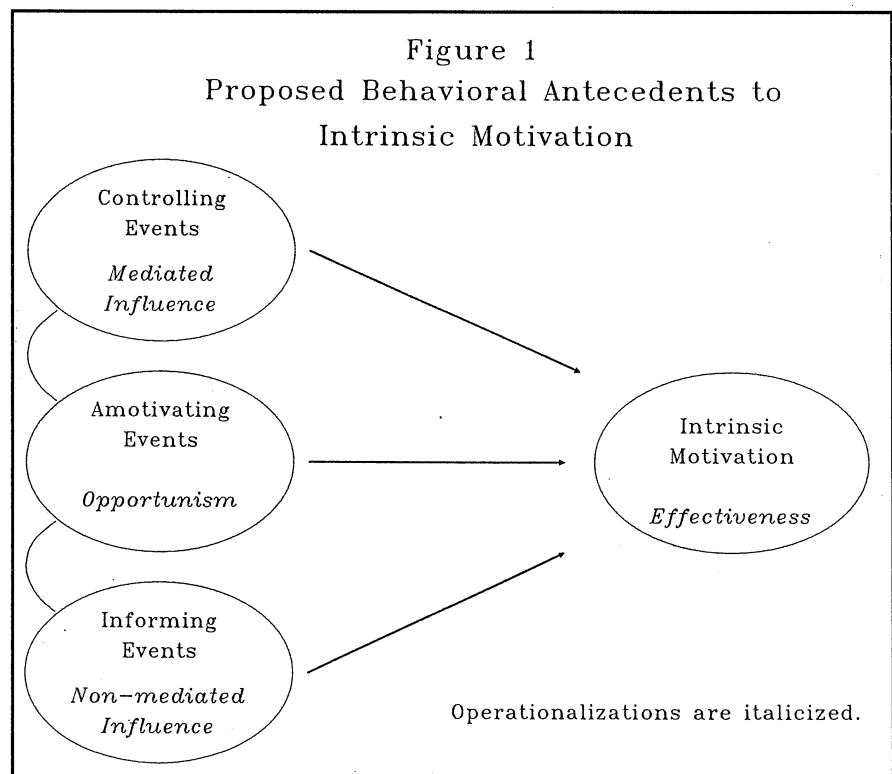
**A Model of Interfirm Behaviors**

Building on cognitive evaluation theory and recent interorganizational research, a model is proposed which treats influence measures and opportunism as intercorrelated antecedents to intrinsic motivation. Figure 1 provides an outline of the model.

*Association of Influence Strategy Choice with Opportunism*

Social contract theory characterizes interpersonal exchange along a discrete-relational continuum (Dwyer, Schurr, and Oh 1987; Macneil 1978, 1980). Discrete transactions involve limited communication and narrow content during which the identity of the parties is ignored. In contrast, relational exchanges are characterized by duration, involvement of multiple parties, and considerable obligations and expectations.

Under high levels of relationalism (Mohr and Nevin 1990) deception is unnecessary for compliance. Non-



mediated strategies not only conform to, but elevate the level of relationalism between parties. Informational appeals indicate that the source has a vested interest in the target's success. Any behavior that would be regarded as misleading or fraudulent would be incongru-

ent with the use of non-mediated strategies. A source's opportunistic behavior makes the target sense that communications have been deceptive and not (necessarily) focused on their best interests. Therefore we hypothesize:

**H1:** Perceptions of a source's use of non-mediated influence are negatively associated with perceptions of that party's opportunism.

While non-mediation stands to be associated negatively with source opportunism, mediated influence has a contrasting effect. Individuals who rely upon sanctions (e.g., threats) have relatively little regard for the attitudinal orientations of their trading partners. As a consequence, one would expect such individuals to be less inhibited toward displaying opportunistic tendencies. Given this discussion, it is hypothesized:

**H2:** Perceptions of a source's use of mediated influence are positively associated with perceptions of that party's opportunism.

This relationship between exercised power and opportunism is similar to John's (1984) oil industry analysis. John found that suppliers to gasoline service stations who exercised non-coercive power experienced fewer opportunistic behaviors among retailers. Retailers did not retaliate opportunistically because of the cooperative spirit established by the manufacturer through the use of non-mediated measures. In contrast, retailers acted opportunistically when suppliers employed coercive measures.

While John's (1984) analysis focused on the behaviors exhibited by buyers and sellers, the present analysis addresses the seller's use of non-mediated influence and opportunism. Rather than suggesting that end-users retaliate with specific behaviors, it is proposed that certain vendor behaviors are used complementarily to induce compliance.

#### *Effects of Interorganizational Behavior Upon Intrinsic Motivation*

Non-mediated Strategies and Motivation. Research in experimental psychology has illustrated the means by which intrinsic motivation can be enhanced. Individuals who were permitted to make choices and become more fully involved in an activity were more intrinsically motivated. Zuckerman, Porac, Lathin, Smith, and Deci (1978) found that subjects in experiments who were given options were more intrinsically motivated than those directed to perform specific behavior. Similar results have been reported in research with child subjects who were given apparent choice (Swann and Pittman 1977).

Relative to other influences, non-mediated strategies provide greater opportunity for choice and facilitate feelings of self-determination. Non-mediated influence strategies generally involve the dissemination of knowledge and function as informational events. These information exchanges and recommendations signify that the individual's interorganizational behavior is self-determined. For example, a mainframe computer vendor may wish for a university to upgrade its central processor to a new model. The selling organization provides information regarding the performance advantages of the new system. The new technologies offer the user enhanced throughput, less complicated systems operation, reduced electrical expenses, and lower maintenance costs. The purchasing behavior is experienced as autonomous and attributed to the technologies incorporated into the upgrade. As a consequence the intrinsic motivational level is raised. Therefore the following is proposed:

**H3:** Perceptions of a source's use of non-mediated strategies increases the target's level of intrinsic motivation.

Mediated Strategies and Motivation. The counter-intuitive relationship between rewards and intrinsic motivation was an integral component of early evaluation theory research (Deci 1971). Individuals who received relatively large monetary payments exhibited lower levels of interest in focal tasks than those given little or no incentive. Monetary rewards seemed to induce a change in causality from internal to external attributions. The extrinsically motivated behavior was exhibited to get the rewards rather than for the behavior's intrinsic value. The activity thus became a means to an end (i.e., instrumental) rather than an end in itself.

This relationship between motivation and extrinsic constraints has also been illustrated with non-monetary incentives. Amabile, DeJong, and Lepper (1976) found that subjects who worked to meet deadlines had lower levels of intrinsic motivation than control groups. Similarly, Lepper and Greene (1975) found that children whose activities were monitored spent less time in problem-solving activities.

Mediated influence strategies from field studies should have the same impact as sanctions in laboratory experiments. That is, their use should result in behavior being attributed to extraneous conditions rather than the behavior itself. Positive and negative sanctions should result in behavior being exhibited to obtain rewards or avoid penalties. Similarly, appeals to legal agreements should result in the individual attributing behavior to contractual constraints. The result of these external attributions is lowered levels of intrinsic motivation toward the exchange. For example, the computer

marketing organization may impose the threat of a price increase in future months to secure an investment in the current time period. Under these circumstances the user will attribute her/his behavior to external factors and express lower levels of self-determination. This reduced autonomy undermines the individual's intrinsic motivation. Based on this reasoning we hypothesize:

**H4:** Perceptions of a source's use of mediated strategies lower the target's level of intrinsic motivation.

This relationship between influence and outcomes has been supported in several marketing channels studies. Frazier, Gill, and Kale (1989) found that manufacturer coercion impaired the role performance of carbide tool distributors in India. Frazier and Summers (1984) reported that coercive strategies resulted in lower satisfaction in the exchange and increased the likelihood that a dealer would dissolve the relationship. Informational appeals had contrasting effects on the relationship. Similarly, John (1984) found that attitudinal orientations toward an exchange were reduced through the use of coercion but were enhanced through noncontingent influence. Finally, Keith, Jackson and Crosby (1990) found that buyers' perceptions of self-control were enhanced when suppliers activated expert and information power bases. Coercion and reward power were shown to have a negative impact on perceived self-control.

#### Effects of Opportunism Upon Intrinsic Motivation.

From a cognitive evaluation perspective opportunism facilitates amotivation. Shirking of responsibilities and avoiding obligations signal to the individual that s/he will not be able to interact successfully with the trading partner. The individual will experience these behaviors as forces operating in the relationship which are beyond their control (cf. Deci and Ryan 1985). The target feels helpless with respect to these activities and intrinsic motivation toward the exchange diminishes. For example, the computer vendor's boundary personnel may offer to provide assistance with the installation of new software that accompanies the upgrade of the central processor. The subsequent failure of the selling organization to provide this assistance constitutes opportunistic behavior that results in the buyer having less interest in the exchange. It is therefore hypothesized:

**H5:** Perceptions of opportunistic behavior by the source lower the target's level of intrinsic motivation.

This hypothesized association between opportunism and intrinsic motivation is similar to John's (1984) discussion of attitudinal orientation among oil retailers. John reported that retailer's opportunism was a consequence of their attitudinal orientation. In the present analysis, however, it is suggested that user's perceptions of working relationships are a function of supplier's

opportunistic behaviors.

## Research Method and Results

Data were collected from mainframe computer user groups in six major U.S. midwestern cities. The members of these groups were key personnel involved in the procurement and development of mainframe systems for manufacturers, wholesalers, hospitals, large government agencies, and universities. This setting appears germane to the objectives of the study for two reasons. First, dependency levels across reseller-user relationships are expected to vary, revealing different approaches toward interfirm communication. Second, the procurement and selling activities in this context are non-trivial and involve multiple parties in prolonged interaction.

In total 174 mail surveys were distributed at the end of user group meetings in the six cities. The surveys were accompanied by return-addressed stamped envelopes and five dollars. Sixty days after the final user group meeting 94 usable responses had been received resulting in a 54% response rate. The typical respondent was a 45 year-old male data processing manager earning \$40-50 thousand and participating in annual computer purchases in excess of \$4 million. Since the data were collected with a single company's organizational set the findings are less representative than if the data had been obtained from a cross-industry design. As a consequence some level of external validity is sacrificed in order to provide a preliminary analysis of the proposed framework (cf. McGrath and Brinberg 1983).

In order to assess potential non-response bias the early responses were compared with late responses in each chapter of the user group (Armstrong and Overton 1977). No statistically significant differences were found in number of employees, dollars invested in hardware and software, annual data processing budgets, and salaries. Therefore, non-response bias did not appear to be a factor.

Multiple boundary personnel are usually involved in interorganizational exchange in this industry. Cross-functional selling teams consist of individuals from different departments whose behaviors are coordinated to provide superior customer service (Gerber 1991). For example, the vendor may have one representative that markets hardware and another that markets software. The questionnaire design isolated the activity of the most frequent vendor contact (i.e., the primary contact) from the buyer's second most frequent contact (i.e., the secondary contact). These reports were separated throughout the measurement model and structural analysis.

### Measure Assessment

A number of methods have been employed to assess intrinsic motivation (Deci and Ryan 1985). In an experiment one can observe whether the participants perform the focal behavior during a period of "free choice." To the degree that the behavior is exhibited the individual is said to possess intrinsic motivation. In applied settings questionnaires are designed to address the "quality of performance" as well as the level of "interest and enjoyment" (Deci and Ryan, 1985, p. 35). These psychometric measures are used to infer the subjects' intrinsic motivation.

This study employed Ruekert and Walker's (1987) measure of perceived effectiveness. Since the scale captures the perceived quality and satisfaction in the relationship it is an appropriate proxy for intrinsic motivation toward an exchange. The approach is similar to that utilized by Deci *et al.* (1989) in their intraorganizational analysis. Ruekert and Walker's scale has been employed to assess interactions between autonomous organizations (Van de Ven and Ferry 1980) and between departments within a single corporation. Factor analysis of the responses to these items evinced a single factor solution.

John's (1984) measure of opportunism was incorporated into the analysis with minor wording changes. This scale focuses on the vendor's attempts to avoid obligations, shirk responsibilities, alter information, and overstate difficulties. The single-factor model evinced in previous studies was supported for primary and secondary sales representatives.

Influence strategies have been assessed by a number of researchers on an intraorganizational (e.g., Kipnis, Schmidt, and Wilkinson 1980; Schriesheim and Hinkin 1990; Yukl and Fabe, 1990) and interorganizational level (Frazier and Summers 1984; Johnson *et al.* 1985). Based upon Frazier and Summers' (1984) measure, an influence scale was developed that addressed mediated and non-mediated influence in a capital equipment context. The non-mediated influence measures included information exchanges and recommendations. Information exchanges relied on the target to act upon source-supplied information while recommendations indicated that a behavior was in the best interest of the target. The mediated strategies included promises, threats, and legalistic pleas. Promises and threats induced compliance through positive and negative sanctions, respectively, at the disposal of the source. Threats were classified into those related to service issues or other undesirable consequences of non-compliance. Legalistic pleas used contractual means as "tools" for gaining compliance.

The measurement instrument is provided in the appendix. The factor loadings for the influence strate-

gies and opportunism scales are provided in Table 1. The factor loadings are separated for the reports on primary and secondary vendor contacts. Based on analysis of the factor loadings and screen tests of the eigenvalues a three factor orthogonal solution seemed appropriate (cf. Dillon and Goldstein 1984; Hair, Anderson, Tatham, and Black 1992). In general the a priori factor structures are supported. Information exchange and recommendations load on the non-mediated factor for the primary and secondary representatives. Similarly, legalistic pleas, and service threats, and performance threats load highly on the mediated influence factor. The promise measure does not load as predicted in either sample. In the measure of the primary model the promise item loads on the non-mediated factor while it does not load significantly on any factor in the secondary model. As a consequence, the promise strategy was not included in the structural analysis.

### Hypothesis Testing

The correlations provided in Table 2 generally support the hypotheses. Opportunism is positively associated with mediated influence and negatively associated with non-mediated influence in the primary model. In the secondary model opportunism is positively associated with mediated influence, but the relationship with the non-mediated strategies is not statistically significant. H1 is supported in the primary model, and H2 is supported in both relationships.

Interestingly, non-mediated and mediated influence are positively correlated, although not significantly in the primary model. This finding reflects that of Frazier and Rody (1991) and stands in contrast to those of prior influence analyses (e.g., Frazier and Summers 1984, Kale 1986).

The relationship between the primary representative's interfirm behaviors and intrinsic motivation is provided in Table 3. The overall results suggest that these activities influence the level of performance ( $F(3, 90) = 27.07, p < .01, \text{Adj. } R^2 = .457$ ). Opportunism seems to have a strong negative impact upon the level of effectiveness ( $\beta = -.595, p < .01$ ). Non-mediated ( $\beta = .140, p < .10$ ) and mediated influence ( $\beta = -.131, p < .10$ ) are marginally related to effectiveness, although these relationships are suppressed due to multicollinearity among the predictor variables. The independent effect of non-mediated influence is statistically significant ( $\beta = .337, p < .01; \text{Adj. } r^2 = .103$ ). Similarly, mediated influence is statistically significantly related to intrinsic motivation in a univariate analysis ( $\beta = -.256, p < .01; \text{Adj. } r^2 = .055$ ). Thus, H3-H5 are supported for the primary contact.

The results for the secondary representative are also

provided in Table 3. The overall results suggest that the behaviors of the secondary representative are marginally related to the individual's level of intrinsic motivation ( $F(3, 90) = 2.38, p < .07; \text{Adj. } R^2 = .043$ ). Non-mediated influence has a statistically significant impact upon the level of effectiveness ( $\beta = .271, p < .01$ ). In contrast, mediated influence ( $\beta = -.145, p < .20$ ) and opportunism ( $\beta = .063, p < .58$ ) are not related to interorganizational effectiveness. While H3 is supported in the secondary model H4 and H5 are not.

## Discussion

The analysis provides some support to hypothesized relationships among communication content, opportunism, and intrinsic motivation. Influencing communications focus the target either on internal or external drive attributions. When influence is non-mediated, a vendor's communicative behavior serves as informational rather than controlling stimuli. Subsequent target behavior is perceived by that party as being intrinsically motivated because behavior is not driven by contingen-

Table 1  
Factor Analysis of the  
Influence Strategies and Opportunism Scales

	Factor Loadings <sup>a</sup>		
	Nonmediated Strategies	Mediated Strategies	Opportunism
<u>Primary Representative</u>			
Influence Strategies			
Information exchange	<u>.67</u>	.10	-.17
Recommendations	<u>.87</u>	.03	-.31
Poorer service threat	.07	<u>.70</u>	.11
Legalistic plea	.07	<u>.41</u>	.19
Negative consequences threat	.13	<u>.78</u>	.04
Promise	<u>.44</u>	.10	.00
Opportunistic Behaviors			
Requires Supervision	-.09	-.01	<u>.64</u>
Overstates Difficulties	-.09	.14	<u>.82</u>
Shirks Responsibilities	-.25	.04	<u>.71</u>
Alters Information	-.07	.27	<u>.79</u>
Avoids Obligations	-.12	.26	<u>.70</u>
<u>Secondary Representative</u>			
Influence Strategies			
Information exchange	<u>.72</u>	.22	.14
Recommendations	<u>.83</u>	.02	-.34
Poorer service threat	.07	<u>.74</u>	.20
Legalistic plea	-.03	<u>.76</u>	.12
Negative Consequence threat	.19	<u>.67</u>	.10
Promise	.07	.19	.14
Opportunistic Behaviors			
Requires Supervision	.04	.13	<u>.70</u>
Overstates Difficulties	.04	.08	<u>.88</u>
Shirks Responsibilities	-.18	.19	<u>.74</u>
Alters Information	-.03	.21	<u>.86</u>
Avoids Obligations	-.12	.36	<u>.67</u>

<sup>a</sup> The most important determinant factor for each item is signified by the underlined loading. ( $n = 94$ )

cies from the vendor. When a buyer is confronted with sanctions from a vendor s/he attributes behavior to the source. Perceived self-determination is subsequently reduced resulting in less intrinsic motivation to transact with the vendor. Thus, influencing communications serve as controlling or informational stimuli, focusing the target on external or internal reward systems, respectively.

Opportunism, on the other hand, is considered an amotivational external stimulus. Buyers confronted with a primary trading partner's deceptive behavior devalue any future transacting. Promises not kept or concealed information jeopardize the target's desire to undertake role tasks. Instead of feeling a loss of self-determination or autonomy, the buyer perceives that interaction with the vendor will result in ineffective performance. Presently the pragmatic and academic implications of these findings are discussed.

miscranean behaviors are likely to use mediated forms of influence. Low levels of vendor opportunism, however, are associated with non-mediated influence.

These interfirm behaviors should be given careful consideration in the marketing of capital goods. Capital good procurement (e.g., mainframe computers, highway construction equipment) involves high levels of investment over an extended period of time. Sales representatives in these settings have a relatively small number of potential customers. Indeed, these accounts are difficult to cultivate and, when lost, are gone forever (Jackson 1985). These customers respond favorably to consultative selling techniques. Consultative selling involves identifying customer needs and recommending appropriate solutions to meet these needs (Weitz, Castleberry, and Tanner 1992). Sales representatives who provide information and make recommendations use consultation to foster effective relationships. In contrast, unethical conduct and high pressure tactics greatly reduce the perceived value of the relationship to

Table 2

## Pearson Correlations and Alpha Coefficients of the Measures

Model Constructs	PN	PM	PO	SN	SM	SO	IM
1. Primary Nonmediated (2)#	.78*						
2. Primary Mediated (3)	.13	.68					
3. Primary Opportunism (6)	-.36	.24	.86				
4. Secondary Nonmediated (2)	.42	.15	-.08	.72			
5. Secondary Mediated (3)	.14	.51	.07	.19	.79		
6. Secondary Opportunism (3)	-.14	.16	-.04	-.12	.36	.89	
7. Intrinsic Motivation (6)	.34	-.26	-.67	.24	-.07	-.02	.86

# Number items for each scale in parentheses.

\* Coefficient alphas on diagonal.

Correlations > |.17| have p values < .05

Correlations > |.24| have p values < .01

(n=94)

### Managerial Implications

A computer vendor's behavior is a reflection of the value placed on the continuation of the relationship. When little value is placed on the exchange suppliers rely upon mediated influence and opportunism. The use of threats, for example, denotes a priority to achieve short-term goals, such as receiving payment of a past due account, with little interest in the long-term ramifications of using such strong-arm tactics. This myopic perspective demonstrates that the vendor is not interested in cultivating the relationship. Similarly, when a vendor chooses to cheat or deceive a buyer, they jeopardize the relationship. Those who engage in such

buyers. Since consultative influence enables long-term relationship to develop, capital equipment sales organizations should continue to emphasize this approach in their marketing efforts.

Our analysis also illustrates the different roles played by members of the selling team. Researchers have long recognized that buying teams consist of users, influencers, gatekeepers, and buyers (cf. Webster and Wind 1972). It appears that within the mainframe computer context motivation to preserve the interfirm relationship hinges on the interpersonal relationship struck with a key individual in the selling team. Sales organizations should identify and reward individuals who maintain



these critical links with customers.

*Research Implications*

The role played by alternative members of the selling team has implications for data collection. Measures obtained in interorganizational relationships are designed to reflect organizational or individual properties (Anderson 1987). Organizational properties (e.g., centralization) are assessed through informant reports while individual properties (e.g., satisfaction) are obtained from respondent reports. In this analysis respondents reported on multiple relationships. While most hypotheses were supported in the primary contact model, the secondary contact relationships were generally not statistically significant. This finding suggests that in multiple party exchanges the primary boundary person is critical to the exchange, but reports of rela-

idiosyncratic to the channel setting. Future research should consider the role team-selling members play in a particular channel context before discounting secondary personnel from any analysis. Second, only one individual from a buying firm served as a respondent in our study. While this individual may report little effect of a secondary person on their motivation, reports from other buyer personnel may be dissimilar. Multiple respondents providing input on their relationship with the same representative may therefore be meaningful. Nevertheless, this design requires a level of control seldom afforded in interorganizational field research.

**Suggestions for Future Research**

A number of limitations to our study provide the impetus for future research. First, we utilized a monadic, single respondent approach. This research should be augmented with dyadic, multiple informant methods (Anderson 1987). When multiple informant reports are employed on either side of the dyad one can account for informant bias and obtain a more precise delineation of firm-level constructs (Anderson and Narus 1990). Such analyses make it possible to assess relationships between firm-level constructs and individual sentiments.

Second, our approach to perceived influence is a general

one. While striving for parsimony, we sacrifice the precision afforded by examining the influence strategies individually. Multi-item measures of each influence strategy would facilitate a deeper understanding of the effects of communication content on trading relationships (Yukl and Fabe 1990).

Third, our framework for analysis is consistent with

<u>Independent Variables</u>	<u>Dependent Variable</u>	
	Intrinsic Motivation	
	Primary Model	Secondary Model
Primary Non-mediated Influence	.140 *	-----
Primary Mediated Influence	- .131 *	-----
Primary Opportunism	- .587 ***	-----
Secondary Non-mediated Influence	-----	.271 ***
Secondary Mediated Influence	-----	- .145
Secondary Opportunism	-----	.063
Overall F-Statistic	27.07 ***	2.38 *
Adjusted R <sup>2</sup>	.457	.043

*	p < .10
**	p < .05
***	p < .01
<u>n</u>	= 94

tionships with other persons may not enhance understanding of buyer-seller interactions. Therefore, single respondent reports of relationships with primary boundary persons may be appropriate when an analysis focuses on individual properties.

We temper this comment with two points. First, the dominant role played by the primary contact may be

the methods employed in most cognitive evaluation theory research (e.g., Ryan, Mims, and Koestner 1983). Consequently, perceived locus of causality and competency are not measured but are presumed to be affected by external events. Approaches which incorporate measures of such constructs (e.g., Rotter 1966) may substantially advance research into cognitive evaluation (Cellar and Wade 1988).

Our results are encouraging for the use of cognitive evaluation theory as a conceptual tool for understanding buyer-seller interactions and interorganizational exchange. Deci et al. (1989) have illustrated that economic factors and interventions affect self-determination for intraorganizational relationships. Future research should consider behavioral and contextual antecedents on an interorganizational level. For example, communication direction (Mohr and Nevin 1990) should have an impact on a buyer's orientation toward transacting. In relationships where communication is bidirectional buyer intrinsic motivation should be higher than when communication is primarily directed "downward" from the supplier. Similarly, the level of dependence that the buyer and seller bring to the relationship is likely to have an impact on the type of influence (Kale 1987).

Finally, capital equipment industries are highly attractive settings for interorganizational research. As in the case of mainframe computer selling, monetary outlays are anything but trivial for both parties while successful completion of the exchange has long-term ramifications for all involved. Interfirm dependence levels are expected to vary across relationships. Analysts of interfirm interaction should strongly consider the capital equipment relationships as a context for future research.

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### Appendix

#### *Effectiveness* (5 point Likert scale strongly agree - strongly disagree)

To what extent would you agree that...

1. I have had an effective working relationship with this vendor.
2. The vendor has carried out its responsibilities and commitments to me in the past six months.
3. I have carried out my responsibilities and commitments to the vendor in the past six months.
4. The relationship between the vendor and me is productive.
5. The time and effort spent in developing and maintaining relationships with this vendor is worthwhile.
6. Over the past six months, I have been satisfied with my relationship with this vendor.

#### *Opportunism* (5 point Likert scale strongly agree - strongly disagree)

To what extent would agree that your primary<sup>a</sup> representative...

1. Does things because we may check up and insist on them.
2. Slightly overstates her/his difficulties in order to gain our assistance.
3. Promises to do things without actually doing them later.
4. Alters the facts slightly in order to get something from us.
5. Avoids certain contractual obligations when there are profit opportunities from doing so.

#### *Mediated and Non-mediated influence* (5 point Likert Scale nearly all the time - never)

How often would you say that this person<sup>a</sup>...

1. Discusses general philosophies about how the system should operate. (Information Exchange)
2. Offers suggestions in order to make the installation more successful. (Recommendations)
3. Emphasizes that failure to comply with their requests will result in poorer service. (Service Threat)
4. Makes references to legal agreements they have with you. (Legalistic Pleas)
5. Discusses negative consequences that may arise dues to non-compliance with their suggestions. (Negative Consequences Threat)
6. Provides specific incentives (e.g., special price breaks, quantity discounts) for you to make enhancements to your system. (Promise)

a - These questions were asked for both the primary and secondary representatives in different sections of the questionnaire.