Scholarship and Professional Work - Business

College of Business

1991

The Effect of Perceived Personal Consequences on Participation and Influence in Organizational Buying

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A potential explanation for the amount of individual participation and influence in an industrial purchase decision is whether or not the participant expects any personal repercussions to result from the decision outcome. Justified by a script theory extension of the reward/measurement model, the above proposition was tested and supported using a LISREL model fitted to the responses of executives who participated in the purchase of a specialized item of capital equipment.

Introduction

A generally accepted notion in organizational buying behavior is that purchase decisions are most often made by a buying center or decision making unit (DMU)—that collection of individuals whose input receives some consideration in the purchase decision. This notion has spawned a number of research studies that have examined patterns of participation and influence within a decision making unit (Johnston and Bonoma (1981); Silk and Kalwani (1982)) and discussions on how to market to such a group (Bonoma, 1982). Participation and influence have been shown to vary by type of product under consideration (Bellizi and McVey, 1983), position in the organization (Thomas, 1984), stage in the purchase decision (Doyle et al., 1979), and type of purchase situation (Robinson et al., 1967). While this work has shown that individual participation and influence do vary according to a number of different factors, there appears to be little underlying rationale for explaining *why* they vary (Silk and Kalwani 1982).

If marketing managers are to gain a better understanding of the behavior of individuals within a DMU, it is not enough to know who may participate in a purchase decision and what their influence on other DMU members might be.

Managers must also have an understanding of what motivates these individuals to take the actions that they do. One factor that has been shown to impact participation and influence in management decision making is the degree to which an individual feels they will be *affected* by the decision (Patchen, 1975; Wilson and Ghingold, 1985). An individual can be affected by the purchase decision through intrinsic rewards for doing one's job, extrinsic rewards received from the organization, and change in status within the organization (Patchen, 1975; Salancik and Pfeffer 1977). Conceptually, Anderson and Chambers (1985) have drawn these concepts together and proposed a reward/measurement model of organizational buying behavior, which makes the sensible point that the buying firm can only influence performance that is monitored and rewarded. The implication for marketing managers is that they must take the buying firm's reward/measurement system into consideration when dealing with the members of the DMU. However, even with this knowledge, it is still very difficult for the vendor firm to gain an understanding of who participates in the buying group, as well as who is likely to be most influential.

The main premise of this article is that the more an individual perceives that the outcome of the purchase will have personal consequences (either positive or negative) for them, the more that individual will participate in the process and attempt to influence the decision outcome. Salespeople have traditionally determined participation and influence by directly asking members of the buying organization who will be involved in the process and what each person's say in the outcome will be. However, previous research has found that respondents tend to inflate the ratings of their own participation and influence in the purchase decision (Cooley et al., 1977; Grashof and Thomas, 1976). If participants overstate their participation and influence in responding to market research measures, it is highly probable that they will also overstate their participation and influence to a sales representative. It is our contention that when establishing the customer's needs there may be an indirect way of determining participation and influence that actually provides more useful information. If early on in the sales interaction salespeople can determine what the consequences of the decision will be for that specific individual, the salesperson not only identifies the likely involvement of the respondent in the decision but also why they will participate. The theoretical proposition underlying such a line of questioning is that the individual who perceives that the decision outcome will have important personal consequences will participate more actively throughout the purchase process and have more influence on the decision. This is a relatively straightforward proposition that has not been examined directly in past research.

Background Literature

An established premise in the organizational behavior literature is that expectations of rewards and punishments have profound effects on individual behavior in organizations (Lowe, 1979; Skinner, 1969). Researchers in the field of sales management have used this framework extensively in their examination of the various ways of motivating a salesperson or sales team (Berl et al., 1984; Sujan, 1986; Walker, 1977). Anderson and Chambers (1985) also use this premise in their development of a reward/measurement model of organizational buying behavior. This model proposes that employee behavior can best be understood and influenced

organization because it is not reality but perceptions of reality that determine behavior. This is an important distinction because the participants' *perceptions* of how their performance will be measured and valued may differ from how they are actually rewarded.

We offer a simpler motivation model based on script theory (Abelson, 1976). This model proposes that when deciding whether or how much to participate in and influence a purchase decision an individual will think through several behavior-outcome scenarios, particularly the very good ones and the very bad ones. The very good scenario enables the individual to assess what the positive personal consequences will be if a good decision is made. The very bad scenario enables the indivdual to assess what the negative personal consequences will be if a bad decision is made. From experience or common sense, the individual may recognize that the major concern is to not to make an optimal decision but rather a satisfactory one (i.e., not make a bad decision). This is because time limits, information uncertainty, and bounded rationality make the achievement of an optimal selection impossible (Simon, 1979), and the organization has shown by its past responsiveness to be much more concerned about purchase failures than purchase successes (Jackson, 1985; Wind, 1971).

Concrete Outcome Events, Availability, and Performance Reviews

The attractiveness of the outcome script motivation model is that is does not posit that an individual considers some abstract composite index of performance which will lead to a set of incremental aggregate rewards. Rather, it proposes that the individual is motivated by the thought of a specific and concrete outcome event—either being praised by others in the organization for making such a good decision or more likely being criticized for making a poor one. The availability heuristic (Tversky and Kahneman, 1976) suggests that it is likely that a participant in the DMU is likely to think this way. A memorable outcome is likely to influence a superior's evaluation of the individual at a later date, especially when the formal evaluation criteria are loosely defined and overall base-rate performance is poorly measured. This is precisely the most common occurring context within which a buying decision is made. The availability of previous purchase experience outcomes is also likely to determine the nature of the outcome scripts developed by the buying group participant when deciding how much to participate in and influence the purchase decision.

The following research did not attempt to capture actual script processing or mental scheming but rather measured what is likely to be the product of such thinking: individual perceptions of the personal consequences of making a good or bad purchase. This was achieved by asking the respondents what would have happened to them if the specific purchase turned out to be a very bad or very good decision. The fundamental hypothesis to be tested was that the greater the perception of important personal consequences, the greater the participation and influence in the purchase decision.

If individual decision makers perceive that they will receive a lot of credit or blame depending on the outcome, then, ceteris paribus, they will participate more. The other factors that have to be held constant, for they are also likely to affect participation, are the expected variance in performance of the alternatives, the

dyadic communication links that developed between individuals during the decision process in an effort to determine the structural dimensions of the DMU. Johnston and Bonoma (1981) found that the DMU existed as a communication network and derived its configuration from the regularized patterns of communication that reflected the individuals involved and the relationship between them.

Therefore, in order to participate in the industrial purchase process, an individual must be a part of the communication network. Before they can influence another individual, they must first participate in the communication process by *sending* some information that is *received* by another person. For purposes of this research, then, *participation* in the DMU is defined as *the total amount of written or verbal communications offered to others in the DMU for consideration* during the course of the purchase decision. This was worded on the questionnaire to include formal communications, as in a written memo, or informal communications, such as a hallway conversation.

Influence

Previous research has shown that influence in organizational decision making will gravitate to those individuals most able to deal with the critical problems and uncertainties that face the organization (Anderson, 1982; Pfeffer and Salancik, 1978). This is especially true when the organization is faced with a new purchase situation and having enough information about each alternative becomes critical for an adequate evaluation of the products. The outcome of the interpersonal influence process is the degree of change in the receiver's state caused by the information provided by the sender. Therefore, for the sender to influence the receiver during a purchase decision, he or she will have to provide some information that has an impact on the receiver's evaluation and choice of a product (Burnkrant and Cousineau, 1975).

Studies conducted in organizational behavior have shown that individuals in organizations have been able to respond easily to the question, "Who had the most influence?" (Silk and Kalwani 1982). In the pretests for measures of the influence construct in this study, the general consensus also was that the person who could best provide the necessary information when it was needed would have the most influence. Therefore, in this study *influence* is defined as *the extent to which the communication offered by an individual for consideration is perceived to affect the actions of other participants in the DMU.*

A well-documented tendency in measuring participation and influence in organizational buying is the upward bias in self-reported measures (Cooley et al., 1977; Grashof and Thomas, 1976; Silk and Kalwani 1982). Therefore, it was decided not to use self-reported measures of these constructs in this research. To obtain a more reliable indication of these constructs, this research only used the participation and influence of each individual DMU member given by *other* DMU members. No self measures were included. Each individual had to be rated by at least one other member of the DMU to be included in the data set. If an individual was rated by more than one person, the ratings were combined in an unweighted average.

Research Design

Overview

A sponsoring organization provided names of individuals who had been part of an actual purchase of commercial weighing equipment used to measure inbound and outbound truckloads of raw materials. These potential respondents were sent a mail questionnaire, and the responses served as data to be used as indicators for the constructs in the casual model. Two separate models were proposed: one that examined how personal consequences would affect an individual's participation, and another that examined the effect of personal consequences on perceived influence. The rationale for these two separate models is outlined below. Models were tested for overall fit, and then a test of overidentifying restrictions examined each individual relationship.

Data Collection

The data come from a self-administered questionnaire mailed to respondents. Sales representatives of the vendor company provided the name of one individual in each of the purchasing organizations whom they felt to be the key informant. These key informants were sent a prenotification letter and then contacted by telephone. The purpose of the telephone call was not only to secure their cooperation in the study but to obtain the names of other individuals in the organization who had had some input into the purchase decision. These other individuals were then contacted by telephone to verify their participation in the decision, secure their cooperation in the study, and identify other members of the DMU. Because it was considered crucial to obtain the information from the key informants, no limit was placed on the number of calls needed to reach them. Four attempts were made to contact the other individuals named by the key informant.

After agreeing to participate in the study, the individuals were sent the questionnaire. Each was accompanied by a personally addressed cover letter and envelope, with "PERSONAL" typed on the outside of the envelope to increase the chances of it getting into the hands of the desired individual. Those individuals not contacted by telephone received a slightly different cover letter that described the nature of the study, gave the name of the key informant as a reference, and asked for their participation. Individuals were given 21 days to respond to the initial questionnaire. If they did not respond, another questionnaire was sent with a reminder letter. If they still did not respond in another 21 days, they received a reminder telephone call.

Sample Characteristics

The sponsoring company provided information on 126 purchase decisions of the product line studied that had taken place in the previous 18 months (company records previous to that time were incomplete). Of these, 22 companies either chose not to participate or the contact person had left the company. A total of 273 questionnaires were sent to individuals in the remaining 104 firms. The returned questionnaires were then sorted by company, and only companies that had more

Table 1. Selected Sample Statistics

Major reason for purchasing equipment (%)		
Control of incoming and outgoing shipments		62
Replacement for existing equipment		18
Satisfy government regulations		4
Directive from corporate headquarters		2
Other		14
Number of people employed by purchasing firm (%)		
Under 25		4
25–99		20
100–250		11
Over 250		65
Number of vendors considered (%)		
One		5
Two		30
Three		45
Four		15
More than four		5
Functional role in organization	No.	%
Purchasing	29	21
Management	27	20
Engineering	51	37
Operations Personnel	30	22
	137	100

Distribution of respondents

Number of individuals in DMU who responded	Number of companies with this number of respondents
2	29
3	14
4	9
5	2
6	1
	55

than one respondent were used in order to ensure a rating on participation and influence by at least one other DMU member. This resulted in a final data set of 137 respondents out of the original 273 (50.1%) The 55 participating firms come from a variety of industries such as paper, chemicals, food processing, petroleum, and manufacturing. Respondents self-selected themselves into 1 of 4 groups: purchasing (21%), management (20%), engineering (37%), or operations (22%). Selected sample statistics are found in Table 1.

Proposed Models

The main thrust of this research was to examine the relationship, in the form of covariances, between an individual's perceived personal consequences of the decision and that same individual's participation and influence during 4 stages of the decision process. Structural equation modeling is an ideal tool for this analysis as

Table 2. Constructs and Indicators

Construct	Indicators
Personal consequences (Ksi 1)	If the product did not work as well as it was supposed to, I would be blamed (C1)
	If the product did not work as well as it was supposed to, my status in the organization would fall (C2)
	If the product worked well, then I would receive most of the credit (C3)
Participation and influence in:	
Problem recognition (Eta 1)	Recognition of need for product (Y1)
Information search (Eta 2)	Securing preliminary estimates and authorization (Y2)
	Determining product specifications and cost information (Y3)
	Selecting suppliers to get quotes from (Y4)
Alternative evaluation (Eta 3)	Evaluating proposals (Y5)
Choice (Eta 4)	Selecting final supplier (Y6)
Overall (Eta 5)	Overall (Y7)

it allows the analyzing of several relationships simultaneously. Two separate models were tested; one that examined the effect of personal consequences on participation and one that studied the effect of personal consequences on influence.

Measures

The measures of the latent constructs of Personal Consequences, Participation, and Influence that were used in this study are presented in Table 2. The indicators for Personal Consequences were measured using a 5-point scale (strongly disagree, 1, to strongly agree, 5). The midpoint, 3, indicated a neutral, neither agree nor disagree point and was distinct from a separate "don't know" category, 0. This separation of indifference and ignorance gives the scale greater monotonic integrity as a measure of perceived influence. The "don't know" responses were not included in the analysis. Influence was also measured on a 5-point scale and patterned after that used by Spekman and Stern (1979) (little or none, some, quite a lot, a great deal, a very great deal). Four phases of the decision process were identified (Problem Recognition, Information Search, Alternative Evaluation, and Choice) with participation and influence ratings for each member of the DMU collected at each phase of the process. Global influence throughout the entire process was also measured.

Data Analysis and Results

Overview

Testing the proposed models required analyzing a number of different relationships simultaneously. Therefore, LISREL VI (Joreskog and Sorbom, 1984) was used to
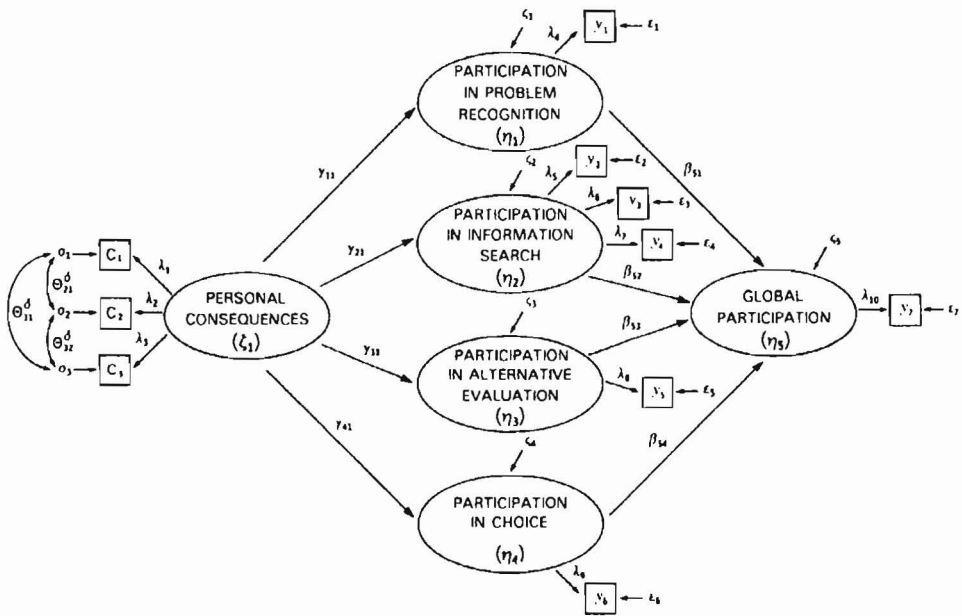
Figure 1. Participation model.

test the relationships proposed in this research. Multiple item scales were used where possible to increase the chances of a normal distribution for the variables (Sujan, 1986). However, even with the use of these scales it cannot be assured that the variables are indeed normally distributed. Joreskog and Sorbom (1982) state that departures from normality have the effect of inflating the greek chi χ^2, and propose that one way to compensate for this possible departure from normality is to use the differences in χ^2 rather than standard errors to determine the significance of the individual paths in the proposed model. Such analysis was used in this research.

The main hypothesis of this research was that perceived personal consequences of an industrial purchase will affect others' rating of a DMU member's participation and influence (as rated by others) throughout the course of the decision process. In order to test the relationship between personal consequences and each of these constructs, it was decided to test 2 separate models—one that dealt only with participation and one that dealt only with influence. Previous research has shown that individuals who have a high degree of participation have a greater probability of having a high degree of influence (Silk and Kalwani 1982; Stogdill, 1974).

These models are found in Figures 1 and 2. Note that they are identical except for the participation and influence measures and will test the relationship between personal consequences and participation/influece at 4 stages of the decision process. These 4 stages were chosen because they represent the 4 basic stages of the Dewey problem-solving model (Dewey, 1910). Additionally, the relationship between participation and influence and a global measure was examined.

Results—Participation Model

The entire model shown in Figure 1 was tested using LISREL VI (Lowe, 1979). The Bentler and Bonett (1980) goodness of fit test was chosen for use due to its
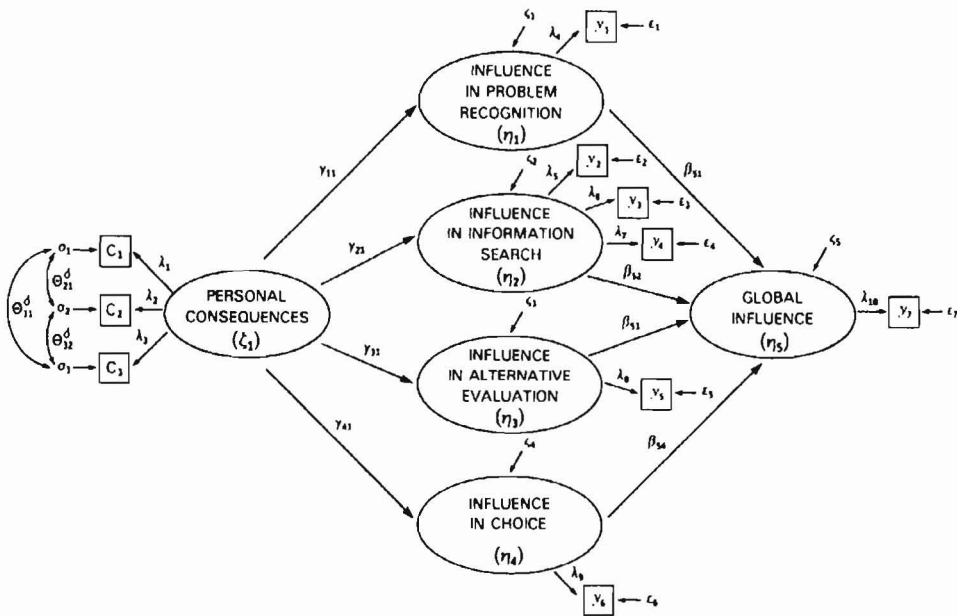
Figure 2. Influence model.

being independent from sample size. For this model, the data indicate a marginally good fit. The χ^2 statistic at 28 df was 97.21, $p = 0.000$, which is not surprising given the sample size. The Bentler and Bonett (1980) goodness of fit statistic has a value of 0.890, which is slightly below the recommended cut-off value of 0.90. The individual relationships hypothesized were next tested for significance. These tests for overidentifying restrictions consist of adding relationships (one at a time) where none are hypothesized to exist, or deleting relationships (again, one at a time) that are hypothesized to exist. The significance of any increase or decrease in χ^2 is then assessed at 1 df.

The results of the test for overidentifying restrictions for the Participation model are found in Table 3. All of the relationships are as predicted by the model. The path between perceived Personal Consequences and participation in the Problem

Table 3. Test of Overidentifying Restrictions–Participation Model

Path				
From	To	Parameter	Difference	Standardized estimate
Personal consequences	Problem recognition	$\gamma(1,1)$	161.25*	0.193
Personal consequences	Information search	$\gamma(2,1)$	237.13*	0.745
Personal consequences	Alternative evaluation	$\gamma(3,1)$	321.66*	0.946
Personal consequences	Choice	$\gamma(4,1)$	304.90*	0.855
Problem recognition	Global participation	$\beta(5,1)$	169.94*	0.149
Information search	Global participation	$\beta(5,2)$	171.77*	0.372
Alternative evaluation	Global participation	$\beta(5,3)$	156.61*	0.093
Choice	Global participation	$\beta(5,4)$	167.09	0.480
Personal consequences	Global participation	$\beta(5,1)$	Nonconvergent	
Problem recognition	Information search	$\beta(2,1)$	153.46*	
Information search	Alternative evaluation	$\beta(3,2)$	155.45*	
Alternative evaluation	Choice	$\beta(4,3)$	155.25*	

Recognition stage was significant (χ^2 difference at 1 df of 161.25, $p < 0.005$, standardized estimate of 0.193) as was the path between Personal Consequences and Information Search (χ^2 difference at 1 df of 237.13, $p < 0.005$, standardized estimate of 0.745). The relationship between Personal Consequences and Alternative Evaluation was as anticipated (χ^2 difference at 1 df of 321.66, $p < 0.005$, standardized estimate of 0.946) as was the one between Personal Consequences and Choice (χ^2 difference at 1 df of 304.90, $p < 0.005$, standardized estimate of 0.855). Therefore, there is a significant and positive relationship between the perceived personal consequences of the purchase decision (using self measures) and the participation of the members of the DMU at the 4 stages of the decision process (using others' measures).

We also attempted to discover if the perceived participation of DMU members at the various stages of the decision process was related to their perceived participation globally throughout the process. Again, all four relationships were as predicted by the model. The path between participation during Problem Recognition and Global Participation was significant (χ^2 difference at 1 df of 169.94, $p < 0.005$, standardized estimate of 0.149) as was the path between participation in Information Search and Global Participation (χ^2 difference at 1 df of 171.77, $p < 0.005$, standardized estimate of 0.372), participation in Alternative Evaluation and Global Participation (χ^2 difference at 1 df of 156.61, $p < 0.005$, standardized estimate of 0.093) and participation in Choice and Global Participation (χ^2 difference at 1 df of 167.09, $p < 0.005$, standardized estimate of 0.480).

Finally, the paths that had been fixed in the original model were freed one at a time in an attempt to determine if any significant relationships had been overlooked in the model specification. None of these relationships proved to be significant. Introducing a direct path from Personal Consequences to Global Participation resulted in a nonconvergent model, indicating that personal consequences do not directly affect an individual's global participation but are instead mediated by participation during 1 of the 4 stages of the decision process. Freeing the paths between the stages of the decision process also did not add to the fit of the model. The path between Problem Recognition and Information Search was nonsignificant (χ^2 difference at 1 df of 153.46, N.S.) as was the path between Information Search and Alternative Evaluation (χ^2 difference at 1 df of 155.45, N.S.) and the path between Alternative Evaluation and Choice (χ^2 difference at 1 df of 155.25, N.S). This suggests that an individual's participation is not cumulative throughout the decision process, but is perceived to exist only during the stages that they offer some form of communication for consideration by others.

Results—Influence Model

The model testing the relationship between self measures of perceived personal consequences and others' measures of influence was found to fit the data very well. While the χ^2 statistic for fit was not significant (χ^2 at 28 df of 61.82, $p = 0.000$), the Bentler and Bonnet (1980) fit index achieved a value of 0.932, above the recommended cut-off value of 0.90. In the test of overidentifying restrictions, all but one of the relationships were as predicted (Table 4). The relationship between Personal Consequences and Influence in Problem Recognition was significant (χ^2 difference at 1 df of 10.84, $p < 0.05$, standardized estimate of 0.291) as was the relationship between Personal Consequences and Influence in Information Search

Table 4. Test of Overidentifying Restrictions–Influence Model

From	To	Parameter	Difference	Standardized estimate
	Path			
Personal consequences	Problem recognition	$\gamma(1,1)$	10.84*	0.291
Personal consequences	Information search	$\gamma(2,1)$	106.19*	0.823
Personal consequences	Alternative evaluation	$\gamma(3,1)$	172.11*	0.911
Personal consequences	Choice	$\gamma(4,1)$	170.54*	0.915
Problem recognition	Global influence	$\beta(5,1)$	6.31*	0.097
Information search	Global influence	$\beta(5,2)$	14.65*	0.260
Alternative evaluation	Global influence	$\beta(5,3)$	1.40*	0.085
Choice	Global influence	$\beta(5,4)$	57.48*	0.597
Personal consequences	Global influence	$\beta(5,1)$	0.00*	
Problem recognition	Information search	$\beta(2,1)$	Nonconvergent	
Information search	Alernative evaluation	$\beta(3,2)$	0.35*	
Alternative evaluation	Choice	$\beta(4,3)$	Nonconvergent	

(χ^2 difference at 1 df of 106.19, $p < 0.005$, standardized estimate of 0.823). The relationship between Personal Consequences and Influence in Alternative Evaluation was also as expected (χ^2 difference at 1 df of 172.11, $p < 0.005$, standardized estimate of 0.911) as was the relationship between Personal Consequences and Influence in Choice (χ^2 difference at 1 df of 170.54, $p < 0.005$, standardized estimate of 0.915).

Three out of the 4 predicted relationships between influence during the 4 decision stages and global influence were significant. The relationship between Influence in Problem Recognition and Global Influence was as predicted (χ^2 difference at 1 df of 6.31, $p < 0.025$, standardized estimate of 0.097) as was the relationship between Influence in Information Search and Global Influence (χ^2 difference at 1 df of 14.65, $p < 0.005$, standardized estimate of 0.260) and the relationship between Influence in Choice and Global Influence (χ^2 difference at 1 df of 57.48, $p < 0.005$, standardized estimate of 0.597). The relationship between Influence during Alternative Evaluation and Global Influence was not as predicted (χ^2 difference at 1 df of 1.40, N.S., standardized estimate of 0.085). This was an unanticipated finding and will be discussed below. Also, there was a nonsignificant relationship between Personal Consequences and Global Influence (χ^2 difference of 0.00, N.S.). This was as predicted and reflects the finding of the participation model that a person must have influence during some stage of the process to be perceived as having some overall influence globally throughout the purchase.

Finally, the relationships between the stages of the decision process were nonsignificant. There was no significant relationship between Influence in Problem Recognition and Influence in Information Search (nonconvergent model), Influence in Information Search and Influence in Alternative Evaluation (χ^2 difference at 1 df of 0.35, N.S.), and between Influence in Alternative Evaluation and Influence in Choice (nonconvergent model). As with the participation model, this appears to indicate that influence does not snowball—i.e., influence in a prior stage of the decision process does not affect perceived influence at the next stage of the process.

Discussion

The major finding of this study was that the perception of personal consequences has a significant and positive relationship on participation and influence in the

problem recognition, information search, alternative evaluation, and choice stages of an organizational purchase decision. The more the respondents perceived that they would be personally blamed for a poor decision or praised for a good decision, the greater their participation and influence throughout the decision process. In fact, what may occur is a dynamic 2-way relationship where perceived personal consequences and participation reinforce each other. Initial expectations of personal consequences will increase individual involvement in the decision. Active participation and involvement will then increase personal responsibility for the outcome and increase the chance of having to accept the consequences of the decision.

Implications for Sales Managers

These findings give sales managers and sales representatives added information to increase the effectiveness of their sales calls. While salespeople will still need to determine who is involved in the purchase decision, they could ask additional questions to determine what the individual perceives the best-case and worse-case outcome scenarios to be. After ascertaining this information, the sales representative could attempt to determine how each the individual perceives each scenario will affect his or her status in the organization. The more personal consequences the individual perceives they may face, the more communication they will offer to others for consideration and the greater the influence this communication will have. Salespeople can then attempt to make this person a "champion" for their product, thus increasing their chances of making a sale.

Implications for DMUs

Also consistent with this selling script, our research suggests that participants believed that they were more likely to be blamed for a bad decision than receive credit for a good one. To explore whether there was a greater expectation among subjects that they would be blamed for negative consequences compared with the expectation that they would receive credit for positive consequences a within-subject difference test was run. This was significant ($p < 0.005$) in the expected direction: thus, subjects perceived they were more likely to be blamed for a negative outcome than praised for a positive outcome.

There are at least 3 reasons for this bias. One is that organizations are usually more capable of recognizing poor performance (i.e., component or equipment malfunction) that better than expected performance (i.e., higher than expected quality, lower than expected operating costs). The second is that organizations attempt to make satisfactory (avoid bad) decisions rather than make the "best" decision (Simon, 1979). The third is that more people will attempt to take credit for success than will accept blame for failure. Such biases will direct a DMU member's influence efforts toward reducing the chances of a very poor decision rather than increasing the chances of a very good decision.

Implications for Strategic Purchasing

As companies search the added value chain for points where they can gain some competitive advantage (Porter, 1985), purchasing is likely to become increasingly

strategic rather than simply operational. Companies are constantly searching for new raw material or component suppliers that are low cost, meet stricter quality control standards, or have a unique feature that contributes to the buyer's own product differentiation. The ability of such potential suppliers to be able to meet delivery and service standards then has to be assessed. With the cost of capital so much higher in this country compared with foreign competition and with investment funds limited, companies also cannot afford to make inferior choices when buying plant and equipment. Gaining greater competitive advantage from purchasing requires an improvement in organizational buying skills. The above results give us some possible insights as to how this might be achieved.

An "all hands to the pumps" solution to increasing the quality of decision making by buying groups would be one where the participation and influence of all individuals in the group is increased. Our evidence suggests that this might be achieved by increasing the connection between participation and perceived personal rewards and punishments for *all* members of the DMU. In much of the buying that takes place in organizations, such a linkage is tenuous at best. Perhaps the simplest and most sound approach would be to have a company-wide incentive scheme that pays bonuses to everyone in the firm based on overall yearly profits. This rewards group selling efforts, group production efforts, *and* group buying efforts. It may also encourage efforts to make the "best" choice for the company, rather than making a "safe" choice for the functional area or individual.

Other approaches that reward buying efforts based on measurable specific performance criteria are likely to bias buying in an undersirable direction. For example, if purchasing officers are rewarded for the productivity of their output in terms of the number of buying decisions they make, this will in turn encourage routine rebuys and limit the search for alternatives. If buying groups are rewarded for buying under budget, then undue emphasis may be given to purchase cost rather than life-cycle cost and performance quality.

Involving a senior executive in the buying group should also encourage participation by all involved, particularly if it is made clear that this executive's is participating to ensure that a good decision is made by the group. The personal consequences of participation and influence and nonparticipation and influence will then be perceived to be much more direct. It is important to note that we are not suggesting that the senior executive shoulder the responsibility for the decision outcome. Rather, he or she is responsible for making everyone in the buying group aware of their responsibilities and hence to continue to look for the best solution.

Limitations

Our research studied the purchase of a specific piece of equipment and hence the findings have limited generalizability. For example, the nature of the purchase was such that if the product proved unreliable or malfunctioned it would greatly disrupt the operation of the facility. On the other hand, there was less opportunity for the purchase to demonstrate its clear superiority or reliability over previously used equipment. Our study also involved a small sample size and in some cases used single item scales to measure influence. Future work needs to study a range of different purchases using a set of measures that more comprehensively operationalize the perceived personal consequences and influence constructs. In-depth case

studies might also be employed in future research to provide a richer description of the personal consequences-influence linkage.

A conceptual limitation of our work is that we depart from contemporary thinking in industrial buying that focuses on the DMU rather than the individual. It can be argued that in a DMU, responsibility and hence consequences are diffused across the individuals in the DMU. This would imply that we would not observe a relationship between individual perceived consequences and individual participation and influence. However, the fact we did suggests that there may still be some value in studying other individual determinants of participation in the buying decision such as expertise, position, and even personality characteristics.

Future Research and Theory Development

Future research into organizational buying behavior needs to develop measures of several basic constructs. They are: 1) the measurement of initial responsibilities, functional role, and specific authority in a purchase; 2) expectations of what would be considered by each participant to be a bad, acceptable, and exceptional outcome; 3) the extent to which respondents perceive they would be held personally accountable for the outcome (measured at the beginning and end of the purchase process); and 4) the likely consequences of both a good decision and a bad decision. Relating these measures to participation and influence is not just of academic interest. It would be very useful for a sales representative to ask these questions directly of individuals they interact with in the DMU. They may indeed help clarify both parties' beliefs as to why the individual is participating in the decision.

While contributing to a general understanding of organizational buying behavior, the reward/measurement model of Anderson and Chambers (1985) needs to be adapted to the realities of most purchase situations where participation and influence in the buying decision is seldom driven by an efficient monitoring system and a clearly understood and specifically applied schedule of reinforcements. A more promising theoretical approach may be to develop a participation/motivation model based on expectations that certain events might occur and the salience of such events to the individual. The expectation and valence associated with such outcomes will be based on the recall of similar past experiences and the thinking through of various outcome scenarios or scripts before and during the current purchase process. It is the positive and negative personal consequences of this decision that will affect participation and influence.

Previous research has shown that purchasing agents have certain scripts for interactions with salespeople depending on where they are in the sales process (Leigh and Rethans, 1984). A reasonable extension of script theory to organizational buying behavior is that in dealing with members of the DMU, the purchasing agent will typecast various members based on past experiences or similar individuals. In doing so previous scripts are recalled, particularly those that had considerable negative consequences for the purchasing agent. Similarly, an engineer or production manager's participation in a buying group is likely to be influenced by specific past experiences he or she had had participating in buying groups. Previous highly positive or negative outcomes are likely to have a major impact on their efforts to control the outcome of the group decision.

An important limitation of both the reward/measurement model and our model

of motivation to participate in the buying decision and to influence the outcome is the lack of consideration of the nature of the perceived improvement in the quality of the decision that is likely to result from participation. The cost/benefit model of consumer search proposed by Stigler (1961) may be able to be usefully adapted and incorporated into future theories of participation in and influence during the organizational purchase process. When an individual DMU member perceives he or she is accountable for the performance of the chosen alternative on a dimension where the alternatives are believed to vary greatly, then such an individual will participate very actively in the search and evaluation of alternatives. On the other hand, when an individual sees no differences on the performance dimensions they are accountable for, they will be much more passive participants. They have little at stake because their participation will not improve the quality of the decision from their particular self-interest perspective.

In summary, much research remains to be done to better understand organizational buying from a personal self-interest perspective. Future research might usefully combine the advocacy-constituency theories of how firms make decisions, theories of how individual performance are perceived to be assessed and rewarded within each functional area of the firm, theories of memory bias in performance appraisal, theories of the cost/benefit of search and the exercise of influence within a group, and mental scheming theories of human decision making. The findings provided by this study represent an initial step in integrating such theories so as to advance our understanding of organizational buying behavior.

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