Encouraging Decision Vigilance Through Increased Accountability

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Abstract

The study examines how vigilance in decision making is affected by accountability. As suggested by Janis and Mann (1977), high quality decision making is characterized by the presence of vigilance. By examining the procedures used by decision makers in selecting a course of action, it is possible to predict the quality of the given decision or course of action. In an organizational setting, 140 customer service representatives were exposed to a realistic job related decision-making exercise. Using two measures of decision vigilance strategy, results indicate that decision makers in high accountability conditions use more decision vigilance than decision makers in low accountability conditions. Implications for practicing managers are suggested.

Introduction

While the last decade has witnessed a substantial increase in theoretical and empirical studies of decision behavior, numerous researchers have suggested the need to conduct decision-making research with a broader perspective (Tetlock, 1985). This perspective challenges the usefulness of studying decision behavior in isolation from the world in which individuals normally function.

The intent of the present research was to examine decision vigilance behavior that explored the organizational condition of accountability. To date this has not been fully explicated. The focus centers on the individual who is influenced by the demands of situational accountability. Previous research has shown that accountability affects the individual's engagement in various coping strategies in an attempt to enhance, defend, or justify their image in decision making (Fandt & Ferris, 1990). The present study extends this focus to see whether the individual's attentiveness to the decision process, referred to as decision vigilance strategy as first advanced by Janis and Mann's (1977) conflict theory of decision making, is influenced by accountability.

Background

Vigilance

While the concept of vigilance has been examined from a number of perspectives with regard to information processing and decision making, the present research examined vigilance from the perspective outlined by conflict theory of decision making (Janis & Mann, 1977). Janis and Mann's conflict model is a descriptive theory of decision making under stress. The theory identifies five distinctive patterns of coping with decisional conflict, including vigilance. These include: (1) careful appraisal of options and consequences, (2) hypervigilance (rapid and impulsive choice), (3) defensive avoidance such as procrastination, (4) rationalization and 'passing the buck,' and (5) complacency in the form of unconflicted adherence or unconflicted change to simple courses of action.

Janis and Mann (1977) suggested that by examining the procedures used by the decision maker in selecting a course of action it is possible to predict the quality of the given decision or course of action. They extracted the major criteria from the literature on effective decision making to develop procedural criteria that can be used as guidelines for the "ideal" evaluation process. These "ideal" procedures for the decision maker are as follows: (1) thoroughly canvasses a wide range of alternative courses of action; (2) surveys the full range of objectives to be fulfilled and the values implicated by the choice; (3) carefully weights whatever he or she knows about the costs and risks of negative consequences, as well as positive consequences, that could flow from each alternative; (4) intensively searches for new information relevant to further evaluation of the alternatives and correctly assimilates an advice or information to which he or she is exposed, even when the information or advice does not support the course of action initially preferred; (5) reexamines all the possible consequences of all known alternatives before making a final choice, including those originally regarded as unacceptable; (6) makes detailed provisions for implementing or executing the chosen course of action, with special attention to contingency plans that might be required if various known risks were to materialize. (p. 11)

The more closely a decision maker meets the above procedural criteria, the more vigilance he or she uses in the process of arriving at a choice. For complex choices involving multiple objectives, Janis and Mann (1977) proposed that a moderate or high degree of vigilant information processing would be a necessity. Furthermore, they suggested that the more adequately each criterion is met, the lower the probability that the decision maker would make a serious miscalculation that might jeopardize objectives and long-term values. That is, vigilance is characterized by satisfactory performance on the previously given criteria.

The study of vigilance as proposed by conflict theory (Janis & Mann, 1977) has received only a few isolated research attempts. Mann and Tan (1979) developed a decision process index that contained four of the criteria indicative of "good" decision making. They predicted and found that vigilance by the decision maker would be related to better decision processing and higher quality decisions than defensive avoidance or hypervigilance (panic) behaviors. However, vigilant subjects scored significantly higher on the decision process index than the panic subjects. Contrary to prediction, the vigilance subjects did not score higher than the defensive avoidance subjects.

In another vigilance investigation arena, Eiser, Hannover, Mann, and Morin (1990), found that decision makers who were more informed and interested scored higher on decision vigilance than those who were not interested or knowledgeable. In a related study, Hirokawa (1987) demonstrated that high quality decisions were characterized by the presence of vigilance, whereas low quality decisions were characterized by faulty information processing.

More recently, Mann, et al. (1988) examined subjects trained in a decision-making course using five vigilance decision strategies including goal clarification, generation of options, search for facts, consideration of effects, and review of action. Their results demonstrated that subjects from the training course group had significantly higher measures of self-esteem as decision makers, self-reported decision habits, and knowledge of decision strategy, than subjects in the control group.

In summary, vigilance is the response to alternative evaluation procedures that constitute the "ideal" in decision making, or the most effective decision strategy. How then can managers encourage vigilant decision making or increase decision makers' vigilance strategies? This remains an intriguing but largely unexplored question investigated in this study.

Accountability

In everyday life people do not function in a social vacuum nor do they make decisions in isolation; they work in socially influenced settings in which accountability of conduct is a universal feature. The fact that people are accountable for and must justify their choices and decisions is an implicit or explicit constraint upon all consequential acts they undertake (Giacalone & Rosenfeld, 1987; Roloff & Campion, 1987).

For the individual, the simplest way to cope with accountability is by making decisions that he/she is confident will be acceptable to others (Tetlock, 1985). This straightforward tactic affords a clearly defensible course of action and avoids unnecessary cognitive work.

While accountability research has been conducted across three levels of analysis—individual, group, and organizational—a consistent theme has prevailed. Individuals are motivated to enhance and protect their social image. They seek respect and approval from those to whom they are accountable whether it is a dyadic relationship at the individual level (Fandt & Ferris, 1990; McAllister, Beach & Mitchell, 1979; Roloff & Campion, 1987; Tetlock & Kim, 1987), the group or constituents one represents (Benton, 1972; Fandt, 1991; Haccoun & Klimoski, 1975; Tyson-Bernstein, 1988); or the organization's relationships with internal participant and outside constituencies (Bettman & Weitz, 1983; Staw, McKechnie, & Puffer, 1983).

Research pertinent to the role accountability plays in the organizational environment has produced some contradictory findings. There are two opposing perspectives with regard to individual behaviors and the influence of accountability. One perspective has demonstrated that higher levels of accountability empowers individuals to be complex information processors. That is, the social pressures for accountability can, under certain conditions, motivate people to be vigilant information processors and respond with indications of high quality decision making (Eiser, et al., 1990; Hirokawa, 1987; Mann, et al., 1988). This perspective depicts accountability as a favorable influence leading to individual strategies that are analytically discriminating, consistent, and cognitively difficult.

Further support for the positive effects of accountability can be found from studies examining decision complexity and accuracy. For example, being accountable for decision outcomes encouraged complex choice strategies (McAllister, et al., 1979), led to systematic processing of persuasive information messages, and eliminated the information primacy bias (Tetlock, 1983), diminished individuals' overconfidence (Tetlock & Kim, 1987), and fostered receptiveness to new information (Gordon, Rozelle, & Baxter, 1988).

In contrast, the second perspective has shown that increasing the stakes (accountability) in decision making

negatively affects judgment and choice behavior (Meixner & Welker, 1988). Accountability influenced individuals to rationalize and take positions that please those in control (Tyson-Bernstein, 1988), experience difficulty reaching consensus (Landry, Richardson & Fandt, 1988), be less cooperative (Roloff & Campion, 1987), fail to generate optimum predictions (Davis & Bobko, 1986), exhibit overconfidence, (Lichtenstein & Fischhoff, 1977), and evoke negative stereotypes, (Gordon et al., 1988).

In summary, the two research perspectives on the effects of accountability present disparate conclusions. Accountability has been found to encourage complex or effortful decision behavior. Conversely, accountability has been shown to lead to ineffective and expedient decisions where choices are easily justifiable to others. The question remains whether accountability can encourage or discourage vigilance in decision making. The purpose of this research is to examine how accountability affects the vigilance used to evaluate information in decision making. Thus, it is proposed that:

H_1: Accountability affects the vigilance process.
H_2: Decision makers in conditions of high accountability will be more vigilant in evaluating alternatives than decision makers in conditions of low accountability.

Methodology

Organization and Participants

The research site was a subsidiary of a large telecommunication corporation located in the Midwestern United States. The personnel involved in the study were customer service representatives participating in a two week customer service management training program. Preliminary discussions with the Human Resources Director revealed a concern that the downsizing of the organization and the restructured customer service positions (increasing the accountability of the representatives) could negatively affect the attentiveness with which they evaluated information and thus the quality of the representatives' decision making. The researcher spent several weeks interviewing managers and personnel in the departments to ascertain the nature of the supervisory relationships, the levels of accountability, the nature of the information evaluation processes used, and the types of decisions made throughout the course of a typical working day.

Data were collected from 140 employees from 5 departments during the customer service training program. The sample consisted of 101 females and 39 males with an average age of 31 years and an average tenure of 6 years with the organization. The training sessions were identical in content, format, and scheduling. The study was conducted following the morning break of the participants' last day of training.

Accountability

Participants were randomly assigned to one of two conditions, either low or high accountability, and given an information packet containing all the necessary details of the study. Following the general introduction, all participants were told:

Your supervisor is attending a staff meeting and is not on duty today. You have been asked to act as temporary supervisor. How will you handle the following problem? [problem in the scenario presented]

The problem scenarios were written from company reports to be pertinent to personnel involved in the study. They were scrutinized by supervisors and trainers and pretested for being veritable.

Depending on the accountability manipulation, participants were or were not held accountable for their decisions and response to the problem (Yarnold, Mueser, & Lyons, 1988). This follows from Showers and Cantor's (1985) proposal that involvement can motivate people to be attentive and high performers.

Participants in conditions of high accountability were given the following specific information:

You alone are responsible for decisions made today as temporary supervisor. Your performance in this task will become part of your permanent training record and will be considered in your job performance evaluation and future career opportunities.

Decision makers in conditions of low accountability were told:

You have no personal responsibility for the decisions you make since you are acting only as temporary supervisor today. Your performance in this task will not become part of your permanent training record nor will it be considered in your job performance evaluation or future career opportunities.

Dependent Measures

The dependent variables were two measures of decision vigilance strategy that were given after the problem was described. The first instrument (shown in Appexdix 1) was the vigilance process index, (VPI) consisting of four open-ended questions adopted from Mann and Tan (1979).

The VPI asked participants to list their goals in solving the problem, the possible choices to solve the problem, the risks, and outcomes associated with their choices. Responses were coded by three judges who were company training personnel and did not know the

premise of the research study. They considered the items (goals, choices, risks, outcomes) listed for each question and computed a total score for the VPI. The overall agreement among the judges for the four questions was 90.5 percent. The coefficient alpha for the VPI was .79.

The second vigilance instrument (shown in Appendix 2), based on conflict theory (Janis and Mann, 1979), was comprised of six questions examining the thoroughness and evaluation of the choices given in the scenario that were indicative of decision vigilance. The instrument, referred to as the vigilance strategy index (VSI), used a seven-point scale that ranged from 1 (not at all thorough) to 7 (very thorough). A total score was calculated by summing the responses on the six questions. The coefficient alpha for the VSI was .82. For both the VSI and the VPI, high scores indicated more vigilant strategy behavior than low scores.

At the conclusion of the exercise, participants completed a three-item questionnaire that tested the efficacy of the accountability manipulation.

Results

The manipulation check suggested a successful presentation of accountability conditions. The two conditions differed significantly (at $p < .01$).

Table 1 outlines means and standard deviations for the two dependent measures. Individuals in the high accountability condition demonstrated a significantly higher VPI score (M = 9.18) and VSI score (M = 35.71) than individuals in the low accountability condition (M = 6.04 and M = 28.67 respectively). Because the two decision vigilance strategies were intercorrelated ($r^2 = .55$, $p = < .001$), the appropriate statistical procedure was a multivariate analysis of variance (MANOVA) (Kerlinger, 1986). A one-way MANOVA was computed using the VPI and the VSI as dependent variables and accountability as the independent variable. As an adjunct to the MANOVA, omega-squared terms were computed as a conservative estimate of the strength of association between the independent variable and the dependent variable (Kerlinger).

The multivariate F ratio shown in Table 2 had a significant affect on the two decision vigilance strategies (F (2, 137) = 48.74, $p < .001$). Significant univariate F-ratios were found for the VPI (F (1, 138) = 65.03, $p < .001$, $\omega^2 = .32$) and for the VSI (F (1, 138) = 52.14, $p < .001$, $\omega^2 = .24$). That is, in conditions of high accountability, participants used significantly greater decision vigilance in their evaluation of decision alternatives.

Discussion

The purpose of the present research study was to explore how decision vigilance strategy is affected by accountability. It was hypothesized and demonstrated that decision makers in conditions of high accountability would be more vigilant in evaluating alternatives than decision makers in conditions of low accountability. The findings begin to make a contribution toward understanding the impact of accountability on vigilance in the evaluation stage of the decision-making process as advanced in Janis and Mann's (1977) conflict theory.

Once a problem is defined and information is directed toward the problem, decision making progresses to developing alternatives, evaluation, and choice. During the evaluation stage, the procedures used in making the decision may be described by the degree of vigilance and the degree of formalization utilized by the decision maker. By scrutinizing the quality of the evaluation procedures that the decision maker uses to examine

Table 1
Means and Standard Deviations of VPI and VSI
by Accountability

Vigilance Measures	Low Accountability N=70		High Accountability N=70		Total Sample N=140	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Vigilant Process Index[a] (VPI)	6.04	2.13	9.18	2.08	7.61	2.63
Vigilant Strategy Index[a] (VSI)	28.67	5.62	35.71	5.20	32.19	6.45

Note: Higher scores indicate more vigilant strategy behavior
[a] Means were found to be significantly different at $p < .001$

Table 2
MANOVA for Decision Vigilance Strategy Under Accountability

Independent Variable	VPI Vigilant Process Index	VSI Vigilant Strategy Index
Accountability		
Multivariate F (2, 137) = 48.74*	65.03*	52.14*
Univariate F-Ratio df (1, 138)ω^2	.32	.24
* $p < .001$		

information and alternatives, one can predict whether a given decision will be of high quality and lead the decision maker away from unanticipated setbacks and postdecisional regret.

Previous vigilance research suggested that an important aspect of vigilance is the capacity to look ahead or foresee what additional requirements and involvements are entailed in the "fine print" of the decision alternative (Janis & Mann, 1977). Decision vigilance leads individuals to perform the difficult cognitive tasks regarded as signs of high quality decision making (i.e., consideration of a variety of options and evidence, tolerance for inconsistency, and receptiveness to new evidence). The findings demonstrate that accountability can positively affect decision vigilance strategies and encourage decision vigilance behavior.

The present research suggests that vigilance is affected by the potential approval or disapproval of reference persons who may be expected to evaluate either the decision itself or the individual's competence as a decision maker. That is, the condition of accountability would alert the decision maker to expect to defend a decision. In the organizational setting, this may sensitize the decision maker to adopt a vigilant pattern of information processing (Tetlock, 1985).

Limitations

Care must be taken to note the shortcomings of this study. These issues include the nature of the investigation and the generalizability of the results. First, the study was in a controlled setting and can be criticized because participants may act differently in alternate settings. Additionally, the study is of short duration and the problem may be less complex and less "real" than found in organizations.

The laboratory experiment and the use of role playing in a scenario have been found to be successful in studying certain organizational variables (Fromkin & Streufert, 1976). That is, the role-playing scenario provides all participants with a standardized stimulus. This contribution is particularly important because it addresses a major shortcoming of questionnaires: they are subject to participants' varying interpretations and cognitive orientations that are a potential source of error (Fredrickson & Mitchell, 1984). In addition, the scenarios in the present study depicted a realistic situation and used similar terminology to provide an accurate description of the participants' organization rather than presenting a hypothetical problem.

Practical Implications

There has been a growing recognition of the importance of providing managers with training to improve their decision-making competence. Understanding the seemingly positive impact of accountability on decision vigilance strategy is a step toward that cognizance and ultimately a step toward improved managerial decision making. When the decision maker exercises vigilance, he or she is most likely to discover and select a successful optimizing solution to resolve the decisional conflict and arrive at high quality decisions.

For the organization in the present study, the findings sanctioned increased customer service personnel responsibility. The organization's concern that the downsizing of the organization and the restructured customer service positions could negatively affect the attentiveness with which personnel evaluated information and made decisions lead to changes in training procedures.

The results support the perspective that accountability is a favorable influence that can empower individuals to

be complex information processors. The increased accountability positively affects the decision vigilant behavior of personnel and encourages greater vigilance strategies. Further, as managers attempt to be more vigilant in their evaluation of information and selection of decision alternatives, they will provide a role model of the vigilant decision maker for subordinates to emulate.

Suggestions for Future Research

Future research efforts might best explore vigilance efforts in longitudinal studies as organizations focus on changes in workplace responsibilities. Since managers have a share in influencing and prescribing roles to subordinates, it follows that providing training for managers where role modeling behaviors of decision vigilance strategy can stress influencing subordinates' behaviors positively can be part of future research studies. ❧

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Appendix 1
Vigilance Process Index (VPI)

1. Although you are (are not) personally responsible for the outcome of the problem, as the temporary supervisor today (if you had been the temporary supervisor today), please briefly list what your goals would be for the problem described on page 2 of your packet.
2. Although you are (are not) personally responsible for the outcome of the problem, as the temporary supervisor today (if you had been the temporary supervisor for the day), please briefly list the possible choices you would consider in solving the problem described on page 2 of your packet.
3. Although you are (are not) personally responsible for the outcome of the problem, as the temporary supervisor today (if you had been the temporary supervisor for the day), please briefly list the risks of the choices you gave for question 2 above.
4. Although you are (are not) personally responsible for the outcome of the problem, as the temporary supervisor today (if you had been the temporary supervisor for the day), please briefly list the possible outcomes or results of the choices you gave for questions 2 above.

Appendix 2
Vigilance Strategy Index (VSI)

Please consider how you evaluated the information presented to you on the previous pages and how you would go about making a decision. For each of the six items listed below, describe your behavior circling the number that indicates how you did each of the items. Use the scale 1 (rather unconcerned) to 7 (extremely concerned).

1.	Examined the possible decisions appropriate.	1	2	3	4	5	6	7
2.	Explored the objectives related to each decision.	1	2	3	4	5	6	7
3.	Estimated the risks of each decision.	1	2	3	4	5	6	7
4.	Considered searching for information that could be helpful in evaluating each decision.	1	2	3	4	5	6	7
5.	Reexamined all the possible outcomes before making a final decision.	1	2	3	4	5	6	7
6.	Considered plans for carrying out the decision.	1	2	3	4	5	6	7