The effect of competence-based trust between physicians and administrative executives in healthcare on decision outcomes

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Abstract

Purpose – Research on strategic decision making has over-emphasized the importance of competence-based trust among the team members. Literature on healthcare is silent on the impact of competence-based trust between the physicians and administrators on decision outcomes. The purpose of this paper is to empirically investigate whether competence-based trust between physician executives and administrators is beneficial to the healthcare organizations.

Design/methodology/approach – Using a structured instrument, data are collected from top management teams of 109 US hospitals. The participants include both CEOs and administrators and physician executives. The data are analyzed using multiple regression technique to examine the role of competence-based trust between the physicians and administrative executives in enhancing decision quality, commitment and understanding.

Findings – Results show that competence-based trust is the key to successful strategic decision making while lack of trust may hinder the effectiveness of decision implementation in healthcare organizations.

Research limitations/implications – Only the healthcare industry is considered. Self-report measures may have some common method bias and social desirability bias.

Practical implications – This study contributes to both practicing managers as well as to strategic management literature. This study suggests that development and retention of competence-based trust between the administrators and physicians is essential in making decision-making process effective and successful.

Originality/value – Though the study represents the US hospitals, to the extent the strategic decision process is similar across the world, the findings can be generalized to other healthcare organizations in the world.

Keywords Health services sector, Competences, Trust, Decision making, Doctors, United States of America

Paper type Research paper

Introduction

The management of today's complex healthcare organizations requires strategic decisions to be effective and competitive. Following the strategic choice perspective (Child, 1972), decisions made by administrators and CEOs of healthcare organizations determine the relative competitiveness in providing service to the society. Decisions such as where to invest capital, where service lines to expand or eliminate, whether to start a new surgery center or increase capacity require commitment of resources and have long-term ramifications to the organizations and hence are to be made carefully. To make these decisions, more often than not, the administrators of healthcare organizations do involve teams. In strategic management literature these are called strategic decision-making teams (SDMTs), which are the basic building blocks of organizations (West, 2002) and responsible for formulating and implementing decisions which have long-term strategic direction and performance implications

(Eisenhardt and Zbaracki, 1992; Hambrick, 1994; Schwenk, 1995). By nature, strategic decisions are vague, complex and non-routine, and require teams to interact on a decision platform. Effective decisions in healthcare require administrators/CEOs to take advantage of diverse perspectives from these members (Garman *et al.*, 2005). Research indicates that effective decisions are facilitated by cognitive conflicts generated in evaluating the pros and cons of strategic decisions (Amason, 1996) and healthcare organizations are no exception to this. Some researchers contend that team members work collaboratively to make strategic decisions and in this process trust and commitment on the part of team members is very important (Tietze, 2005). A strong and growing body of research links interpersonal trust and team effectiveness (Langfred, 2004; McEvily *et al.*, 2003; Dirks and Ferrin, 2001). However, in healthcare management literature there has been a little research into the role of perceived trustworthiness among the team members in influencing the quality of decisions.

Trust between the members is very important because teams typically consist of both professional doctors as well as administrative personnel. Since most of the strategic decisions require inputs from the professional doctors it is more likely that the professionals are involved in decision making. However, at times, administrators would not like to pressurize the doctors to participate in strategic decisions to the extent they are preoccupied with clinical work (e.g. surgery). Available empirical evidence suggests that physicians have clinical mentality and believe that their primary allegiance is to their clients whereas managerially educated executives have primary focus on organization (Schultz, 2005). The effectiveness of decisions depends on the extent to which the administrators and physicians have competence-based trust on each other. For example, if a member proposes to establish a new surgical center and contends that it results in financial benefits in addition to providing healthcare, the soundness of proposal depends on the competence-based trust other members have on the member proposing the venture. Lack of trust results in dismissal of the idea. Similarly, if a physician proposes to have new recruitment for the surgical department, the acceptance of proposal depends on how competent the physician is in assessing the requirements. Thus, competence-based trust plays a major role in strategic decisions.

Theoretical background

Strategic decision-making process involves exchange of information between the members. The way in which information is exchanged, processed and acted upon has a major role in decision making. According to information processing theory (Galbraith, 1973), in order to formulate and implement decisions, individuals obtain, process and act upon the information from others (Leifer and Mills, 1996). Given the nature of strategic decisions (complex, vague, uncertain and have no precedents set), members may need to process a variety of information (Ashby, 1956) and the more the complex the decision, the greater the need for the members to generate information. At the time of making decision members express different viewpoints about the content (e.g. agenda), structure and process and the way in which the information is interpreted depends on the trustworthiness members have on one another. That is to say, while each member provides information, the way in which it is interpreted and acted upon depends on the subjective attributions of the decision participants. The reliability and acceptance of the information of fellow members depends largely on the individual factors of perceived trustworthiness. Strategic decisions have considerable amount of risk and the members are less likely to take risks because they have significant stake in the outcomes of decisions. To minimize the risk organizations may employ governance

mechanism whereby information provided by the fellow members will be audited for authenticity. Evolving such a governance mechanism may be prohibitively expensive (Williamson, 1985). The other alternative is to substitute "trust" for information reliability and information asymmetry. We are particularly interested in the subjective attributions of competence (i.e. competence-based trust) which serve to provide clues about perceptions of team member trustworthiness.

Perceived trustworthiness

Trust literature distinguishes between "trust" and "trustworthiness" (Mayer *et al.*, 1995). Trust is the "willingness of the trustor to engage in risk-taking behaviour" and therefore is an intended action. As such trust can be measured only after the event. On the other hand, perceived trustworthiness is a construct that taps the "willingness of members to be vulnerable to risk". Trustworthiness refers to "reliance upon information received from another person about uncertain environmental states and their accompanying outcomes in a risky situation" (Schlenker *et al.*, 1973, p. 149). Thus, the preconditions of trustworthiness are:

- the existence of a risky situation with regard to whether certain outcomes will be derived in future;
- the presence of cues that provide some information about occurrence of uncertain environmental states; and
- the resulting behaviour of the person demonstrating reliance on this uncertain information (Lewicki and Bunker, 1995; Zand, 1972).

In the context of group decision making, judgments about perceived trustworthiness plays a critical role in the members' willingness to cooperate. For example, members' perceptions about the benevolent intentions and competence of others provide some cues to them to act upon the information provided by the members. Consistent with the previous research, the present study focuses on cognitive perceptions of members' trustworthiness in a decision setting. Cognitive perceptions are based on the perceived competence of other members (termed as competence-based trust).

Development of hypotheses

The influence of competence-based trust on the decision outcomes

The strategic decisions are made after a critical and investigative debate about task. First, such discussion enables the team members to understand the rationale behind the decision. Understanding is important because it provides a common direction for the team members (Amason, 1996). Individual team members will act in a way consistent with other members because they follow the same direction. A common understanding of the rationale underlying a decision will make the members to act in a binding manner in the spirit of the decision. For example, when all the members understand that the rationale behind a particular decision is to control costs, it is likely that their actions will be consistent with other members. Such an understanding is necessary for successful implementation of decisions (Wooldridge and Floyd, 1990). Additionally, commitment is important because it reduces the likelihood that a particular decision will become the target of a counter-effort (Guth and MacMillan, 1986) and increases the likelihood of implementation by overcoming resistance to change (Mason and Mitroff, 1981).

While discussions and debate are the part of decision-making process, the extent to which members rely on the viewpoints of others depends on the competence-based

perception of trustworthiness. That is, the perceived trustworthiness based on the competence of the members is more likely to affect the decision outcomes. The theoretical rationale for this is provided both by Ashby's (1956) theory of requisite variety and the information processing theory of Galbraith (1973). The theory of requisite variety states that the complexity/variety of a given state must match the complexity of the environment in which it operates. The theory of requisite variety is a relevant in the context of strategic decisions because of the following reasons:

- strategic decisions are highly complex; therefore, there must be a variety of information to match that complexity; and
- variety comes from individuals with multiple backgrounds that are manifest in conflict.

Competence-based trust provides cues as to how to process, interpret and act upon the information. This is because competence-based trust depends on the context and success of past interactions. Past interaction provides significant clues about the competence of the members and context considerations specify the members on whom competence-based trust is bestowed upon (Zucker, 1986). For example, if there is discussion on "expansion of ICU services and implement open heart program" in the hospital, and the Chief of Staff put forward his/her arguments in favour, other members will assess his/her argument in light of the competence-based trust they have in him/her. If the members have such a feeling that "He/she knows what he/she is talking about and it makes sense" then they will have competence-based trust in him/her. Competence-based trust enables the members to use diverse skills and become more creative in strategic problem defining and solving (Dutton and Duncan, 1987; Bantel and Jackson, 1989). Competence-based trust is helpful in understanding and explaining how the information is inferred and interpreted by members, which in turn will have performance outcomes. It reassures the team members as to the efficacy of the team and strengthens their belief about the successful implementation of decisions (Dooley and Fryxell, 1999). Since competence and responsibility are central to competence-based trust (Cook and Wall, 1980), members are willing to use the knowledge of others as the basis of further action (Luhmann, 1979). Competence-based trust among team members enables them to be more committed to decisions. When a hospital administrator proposes to launch a new facility to meet the increasing demands from patients, the level of commitment from other members depends on how knowledgeable and competent the administrator is in assessing the benefits of new facility. If the members have a high level of competence-based trust in him, it is likely that their commitment will be stronger than at lower level of competence-based trust. In other words, as decision commitment refers to their effort towards the implementation of decision (Bandura, 1986), competence-based trust fortifies the effort. Based on the above, the following hypotheses are proposed:

- *H1.* Competence-based trust among the strategic decision-making teams in hospitals will be positively related to decision quality.

- *H2.* Competence-based trust among the strategic decision-making teams in hospitals will be positively related to understanding of rationale behind the decision.

- *H3.* Competence-based trust among the strategic decision-making teams in hospitals will be positively related to decision commitment.

Methods

Sample

We used the Hospital Blue Book (2003) and surveyed 980 hospitals from the states of Florida, California, Illinois, Texas, and Colorado.

A survey instrument was designed to collect data from the members of strategic decision-making teams. Data were collected in two phases. During the first phase, surveys were mailed to the CEOs requesting them to describe a strategic decision made during the last 18 months. Following the recommendations of Huber and Power (1985) and Golden (1992), an 18-month time period was chosen because retrospective reports may not be reliable if the time is extended beyond two years. The methodology was designed to reduce the pitfalls of retrospective reports of team members and to increase the accuracy as far as possible.

In addition to identifying a specific strategic decision made during the last 18 months, CEOs/administrators were requested to identify key people (from the list provided by along with the survey instrument) who participated in the decision. The list of members is obtained from Hospital Blue Book (2003).

Of the 980 surveys mailed to the CEOs, 146 surveys were returned; 114 were usable. These CEOs identified 623 strategic decision participants. We subsequently sent surveys to these participants and received 254 usable responses. The average top management team size of our sample hospitals was 4.68 and we received an average of 2.3 responses from the hospitals included in the sample. The respondents consisted of executive officers (e.g. CFO, COO, HR, CTO) – 61 percent; chiefs of staffs (e.g. Chief of Surgery, Chief of Ambulatory Services) – 23 percent; nursing services – 14 percent; and personnel involved in facilities, maintenance, and medical records – 2 percent. Five hospitals had no responses other than the CEO. These responses were dropped from the data sample. This resulted in a total sample of 109 hospitals. The strategic decisions reported by CEOs were related to new product development, improved patient service, restructuring and downsizing, and strategic alliances.

To assess the representativeness, the sample was compared with the larger population on two key dimensions – number of beds and number of employees. First, one-way between-group analysis of variance (ANOVA) revealed that the average size of the hospital (number of beds) for responding hospitals, 163, was not statistically different from the average size of non-responding hospitals, 180, in the population ($F = 1.007$, $p = 0.316$). Second, the number of employees in responding hospitals, 725, was compared with the number of employees in non-responding ones, 661. The one-way between-group ANOVA resulted in a statistically non-significant F of 0.896 ($p = 0.344$). Thus the responding hospitals did not differ significantly from the non-responding hospitals in terms of number of employees and number of beds.

This study involves the responses of two or more individuals who participated in a specific strategic decision, thus data were aggregated. Before aggregating, it was necessary to assess the within-group agreement: therefore, inter-rater agreement was calculated for each of the key variables before aggregating (Glick, 1985). We used R_{wg} coefficient to assess the within-group agreement (James, *et al.*, 1984), which ranges between -1 and 1. A value of 1 indicates complete agreement, -1 represents complete disagreement and 0 represents lack of agreement (which does not equal disagreement). The general rule of thumb is that data can be aggregated when the coefficient is greater than 0.6 (Glick, 1985). The R_{wg} coefficients have uniform distribution and suggest that there were no problems associated with aggregating the data.

Measures

We measured *competence-based trust* using six items developed by McAllister (1995). The items assess the team members' perceptions of competence, ability and integrity. A sample item from competence-based trust reads as: "The track record of members gives no reason to doubt their competence and preparation for the job". The mean value of inter-rater agreement (R_{wg}) for competence-based trust was 0.95. Reliability for competence-based trust scale was strong, with an alpha of 0.92.

We measured *decision quality* with six items drawing from literature (Amason, 1996; Diehl and Stroebe, 1987). The items asked team members' perception of the overall quality of the decision relative to its intent on a Likert-type four-point scale, anchored at 1, "poor" and 4, "excellent". The mean value of inter-rater agreement (R_{wg}) for decision quality was 0.92 and the alpha for the aggregated measure was 0.85.

We measured *decision commitment* using six items adapted from Wooldridge and Floyd (1990). The respondents were asked to answer on a Likert-type seven-point scale questions such as "How much were the team members willing to do to see that the decision was properly implemented?" and "Did that particular decision inspire the members to work hard or enthusiastically?" The mean value of inter-rater agreement (R_{wg}) for decision commitment was 0.89 and the alpha for the aggregated measure was 0.85.

To measure *understanding* we asked the respondents to allocate ten points, based on the relative importance, among six different areas:

(1) cost/efficiency;

(2) new product development;

(3) coordination and control;

(4) human resource development;

(5) customer/market development; and

(6) other concerns (specify).

The sum of squared differences on these items was computed for each team and was then divided by the team size to produce a distance score, which represents the level of disagreement among the members over the decision rationale. This distance score, subtracted from a constant, produced a measure of how well each team's members understood the organizational strategic priorities while making the decision. The mean score of understanding was 7.74 with a standard deviation of 1.28. This operationalization of understanding is consistent with previous research (Dess, 1987; Wooldridge and Floyd, 1990; Amason, 1996).

The study included several control variables: resources, team size, team tenure, task-based conflict and relationship conflict. We measured *Organizational slack* using four items developed by Miller and Friesen (1982) and the items are related to slack in capital, material supplies, managerial talent and skilled technicians. The mean value of inter-rater agreement (R_{wg}) for organizational slack was 0.86 with the values ranging between 0.99 and 0.41, and alpha for slack was 0.67. *Team size* was measured as the number of members identified by the CEO as participants in the decision-making process. The average size of the team reported in this study was 4.68 members with a standard deviation of 1.51. In this study, the *team tenure* was measured as the number of years each team member had been employed by his or her current hospital. The mean tenure of team members was 9.70 years with a standard deviation of 6.24.

Previous research reported that task-based conflict among the strategic decision-making teams has positively influenced the decision outcomes whereas person-related conflict among the team members has negative decision outcomes. Therefore it is essential to include the task-based and person-related conflicts as the control variables. *Task-based conflict* was measured with three items developed by Jehn (1995). These items measure the extent to which team members perceive the existence of task-based differences and disagreements. An example of an item representing the task-based conflict is "How many disagreements over different ideas about this decision were there?" The mean value of inter-rater agreement (R_{wg}) was 0.85 and Cronbach's alpha was 0.85. *Relationship conflict* was measured using Jehn's (1995) four-item summative seven-point Likert-type scale. The items measure the extent to which team members perceive the existence of relationship differences. The mean value of inter-rater agreement (R_{wg}) for relationship conflict was 0.93 and alpha was 0.92. (Please find in the Appendix the strategic decisions made by the hospitals.)

Results

The measurement properties and the results of confirmatory factor analysis (CFA) are reported in Table I.

We further tested for discriminant validity by following the procedures outlined by Fornell and Larcker (1981) and Netemeyer *et al.* (1990), by comparing the variance extracted estimates of the measures with the square of the correlation between constructs. Variance extracted estimate is calculated by dividing the sum or squared factor loadings by the sum of the squared factor loadings plus the sum of the variance due to the random measurement error in each loading (Variance extracted $= \Sigma\lambda2yi/ [\Sigma\lambda2yi + \Sigma\text{Var}(\varepsilon i)]$). If the variance extracted estimates of the variables are greater than the squares of the correlations between the constructs, evidence of discriminant validity is said to exist (Fornell and Larcker, 1981). In this study, the variance extracted estimates for all the variables exceeds the suggested level of 0.50 (Fornell and Larcker, 1981, p. 46) and also exceeds the squared correlation between the variables. These statistics, together with the CFA results, offer support for discriminant validity between the cognition-based trust, decision quality, commitment, task conflict and relationship conflict. The means, standard deviations and correlations among study variables are reported in Table II.

The preliminary analysis of correlation reveals significant positive correlations between predictor variables. The largest correlation among predictor variables was 0.68 and the magnitudes of correlations suggest that multicollinearity was not a serious problem in this study (Tsui *et al.*, 1995). As another check of multicollinearity, we examined the variance inflation factor (VIF) of each independent variable. The largest VIF was less than 3, another sign that multicollinearity was not a problem (Hair *et al.*, 1995; Kennedy, 1979).

Table III presents the results of hierarchical regression analysis (Aiken and West, 1991) of the outcomes of competence-based trust among the strategic decision-making teams.

Hypothesis 1 is related to the effect of competence-based trust among the SDMTs on decision quality. To test this hypothesis first we entered the control variables in the regression equation (column 1). The control variables are organizational slack, team size, team tenure, task-based conflict and relationship conflict. Of these control variables cognitive conflict was a significant predictor of decision quality ($\beta = 0.62$, $p < 0.000$) and the model of control variables (step 1) was significant ($F = 12.01$, $p < 0.001$; $R^2 = 0.36$; adjusted $R^2 = 0.34$) explained 36 percent of variance in decision quality. In step 2 we included competence-based trust in the regression equation and

Variable	R_{wg}	Alpha	Standardized loadings (λ_{yi})	Reliability (λ^2_{yi})	Variance ($Var(\varepsilon_i)$)	Variance-extracted estimate $\Sigma\lambda^2_{yi}/[\Sigma\lambda^2_{yi}+\Sigma Var(\varepsilon_i)]$
Cognition-based trust	0.94	0.92				0.68
1. The members in the group approach their job with professionalism and dedication			0.78	0.61	0.39	
2. The track record of members gives no reason to doubt their competence and preparation for the job			0.79	0.62	0.38	
3. The members feel that they can rely on this group not to make their job more difficult by careless work			0.80	0.64	0.36	
4. Team members, even those who are not close friends, have trust and respect for each other			0.87	0.76	0.24	
5. Team members interacting with others consider them to be trustworthy			0.88	0.77	0.23	
6. Team members can be counted on to fulfill their responsibilities in a reliable manner			0.83	0.69	0.31	
Decision quality	0.91	0.85				0.54
1. The effect that that decision has had on company is:			0.73	0.53	0.47	
2. Relative to what we expected, the results of the decision have been:			0.54	0.29	0.71	
3. Overall, the group members feel that the decision was:			0.60	0.36	0.64	
4. The degree to which team's decision rationale was covered the maximum range of relevant issues was:			0.82	0.67	0.33	
5. The degree to which the team's decision rationale was well structured and reflective of interrelationships and intra-relationships among the relevant issues was:			0.85	0.73	0.27	
6. The degree to which the team's decision rationale was expressed in depth was:			0.81	0.66	0.34	

(continued)

Table I.
Results of confirmatory factor analysis and measurement properties

Table I.

Variable	R_{wg}	Alpha	Standardized loadings (λ_{yi})	Reliability (λ^2_{yi})	Variance ($Var(\varepsilon_i)$)	Variance-extracted estimate $\Sigma\lambda^2_{yi}/[\Sigma\lambda^2_{yi}+\Sigma Var(\varepsilon_i)]$
Decision commitment	0.89	0.88				0.55
1. How much were team members willing to do to see that the decision was properly implemented?			0.59	0.35	0.65	
2. How consistent was the final decision with team members personal priorities and interests?			0.70	0.49	0.51	
3. Did that particular decision inspire the members to work hard or enthusiastically?			0.78	0.61	0.39	
4. How pleased were the team members that particular decision was chosen over all of the potential alternatives?			0.87	0.76	0.24	
5. How much did the team members believe that the decision would enhance your hospital's overall performance?			0.76	0.58	0.42	
6. To what extent the team members believe that the decision represented the best of all the possible alternatives?			*0.74*	*0.55*	*0.45*	
Task-based conflict	0.85	0.85				0.65
1. How many disagreements over different ideas about this decision were there?			0.86	0.74	0.26	
2. How many differences about the content of this decision did the group have to work through?			0.78	0.61	0.39	
3. How many differences of opinion were there within the group over this decision?			0.77	0.60	0.40	
Relationship conflict	0.93	0.92				0.74
1. How much anger was there among the group over this decision?			0.83	0.69	0.31	
2. How much personal friction was there in the group during this decision?			0.92	0.85	0.15	
3. How much were personality clashes between group members evident during this decision?			0.83	0.69	0.31	
4. How much tension was there in the group during this decision?			0.85	0.72	0.28	

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Organizational Slack	4.41	0.55								
2. Team size	4.68	1.51	0.03							
3. Team tenure	9.70	6.24	0.08	0.14						
4. Task-based conflict	2.34	0.56	−0.09	0.21*	0.13					
5. Relationship conflict	2.04	0.59	−0.04	0.23*	0.11	0.40**				
6. Competence-based trust	5.35	1.23	0.01	−0.04	0.10	0.62**	0.15			
7. Decision quality	3.21	0.57	0.01	0.18*	0.15	0.58**	0.14	0.64**		
8. Understanding	7.74	1.28	0.11	−0.03	0.18	0.41**	0.19*	0.41**	0.44**	
9. Commitment	5.78	0.69	0.02	0.10	0.12	0.68**	0.12	0.56**	0.64**	0.31**

Notes: *$p < 0.05$, **$p < 0.001$

Table II.
Descriptive statistics and correlations between variables

the results are presented in column 2. The results show that, among the control variables, team size ($\beta = 0.15$, $p < 0.05$) and cognitive conflict ($\beta = 0.28$, $p < 0.01$) were significant. In addition, the relationship between competence-based trust and decision quality is positive and significant ($\beta = 0.48$, $p < 0.000$). The results of hierarchical regression model in step 2 was significant ($F = 16.79$, $p < 0.001$), explaining 49 percent of the variance in decision quality. In step 2, the inclusion of competence-based trust accounted for additional 12.9 percent of the variance in decision quality ($\Delta F = 26.08$, $p < 0.001$). These results support Hypothesis *H1*.

It was argued that competence-based trust between the team members enables them to understand the rationale behind the decisions (*H2*). This is because members would assess their co-member's trustworthiness on task-related issues; positively interpret the information they provide and act on this information. Competence-based trust creates conditions whereby members exchange the information and interpret it such that it enhances their understanding of the rationale of decisions. The results of testing this hypothesis are presented in columns 3 and 4 of Table III.

The model of control variables (column 3) suggest that organizational resources positively ($\beta = 0.15$, $p < 0.10$) and team size negatively ($\beta = -0.16$, $p < 0.10$) related to understanding whereas cognitive conflict is significantly positively related ($\beta = 0.42$, $p < 0.000$). The control variables model is significant ($F = 6.06$, $p < 0.001$), explaining 23 percent of the variance in understanding. Inclusion of competence-based trust in the regression equation (column 4) resulted in moderately significant beta coefficient for competence-based trust ($\beta = 0.21$, $p < 0.10$) and increased the explained variance by 2.5 percent ($\Delta F = 3.37$, $p < 0.10$) with the full model being significant ($F = 5.73$, $p < 0.000$; $R^2 = 0.25$ and adjusted $R^2 = 0.21$). These results suggest that Hypothesis *H2* has received moderate support.

Since competence and responsibility are central to the competence-based trust (Cook and Wall, 1980), they strengthen the beliefs of the members about successful implementation through the commitment (Bandura, 1986). It was, therefore, hypothesized that competence-based trust will result in increased commitment of the members towards decision implementation (*H3*). The results of hierarchical regression are presented in columns 5 and 6 of Table III.

The control variables model (column 5) suggest that the cognitive conflict is positively related to decision commitment ($\beta = 0.76$, $p < 0.000$), affective conflict is

Variables	Column 1 Decision quality Step 1	Column 2 Decision quality Step 2	Column 3 Understanding Step 1[a]	Column 4 Understanding Step 2	Column 5 Decision commitment Step 1	Column 6 Decision commitment Step 2
Organizational slack	0.05 (0.74; 0.46)	0.02 (0.29; 0.76)	0.15**** (1.67; 0.09)	0.13 (1.51; 0.13)	0.08 (1.22; 0.22)	0.07 (1.05; 0.29)
Team size	0.06 (0.81; 0.42)	0.15* (2.04; 0.04)	−0.16**** (−1.8; 0.07)	−0.13 (−1.35; 0.18)	−0.03 (−0.45; 0.65)	0.002 (0.03; 0.97)
Team tenure	0.06 (0.75; 0.45)	0.04 (0.59 0.55)	0.13 (1.44; 0.15)	0.12 (1.37; 0.17)	0.04 (0.50; 0.61)	0.03 (0.40; 0.68)
Task-based conflict	0.62** (7.1 0.000)	0.28** (2.76; 0.007)	0.42*** (4.34; 0.000)	0.27* (2.17; 0.03)	0.76*** (9.88; 0.000)	0.63*** (6.32; 0.000)
Relationship conflict	−0.12 (−1.40; 0.16)	−0.08 (−1.03; 0.30)	0.06 (0.60; 0.54)	0.07 (0.80; 0.42)	−0.18* (−2.31; 0.023)	−0.16* (−2.12; 0.036)
Competence-based trust		0.48*** (5.10; 0.000)		0.21**** (1.83; 0.06)		0.19* (2.10; 0.038)
R^2	0.36	0.49	0.23	0.25	0.50	0.52
Adjusted R^2	0.34	0.46	0.19	0.21	0.48	0.49
F-value	12.01***	16.79***	6.06***	5.73***	20.82***	18.66***
ΔR^2		0.129		0.025		0.021
ΔF-value		26.08***		3.37****		4.42*
df	5,103	1,102	5,103	1,102	5,103	1,102

Notes: *$p < 0.05$, **$p < 0.01$, ***$p<0.001$, ****$p < 0.10$; [a]standardized regression coefficients are reported; t-values and p-values are in parentheses

Table III.
Regression analysis of competence-based trust on decision outcomes

negatively related to decision commitment ($\beta = -0.18$, $p < 0.05$). The model is significant ($F = 20.82$, $p < 0.000$; adjusted $R^2 = 0.48$) and explained 50 percent of the variance in decision commitment. Inclusion of competence-based trust into the regression equation increased the explained variance by 2.1 percent in commitment and is significant ($\Delta F = 4.42$, $p < 0.05$). The results support Hypothesis $H3$.

Discussion

In this study, we examined the effect of competence-based trust on strategic decision-making teams in healthcare on decision outcomes. The data from 109 teams from hospitals support the hypothesis 1 that competence-based trust among the physicians and administrators enhance decision quality. The results moderately support Hypothesis $H2$ that competence-based trust enhance understanding while the Hypothesis $H3$ has received full support that competence-based trust would enhance decision commitment. In a nutshell, the study suggests that when members have perceived trustworthiness among other participants it is more likely that they interpret the information received positively and become committed to the decisions. Lack of trust may hamper the decision quality, understanding as well as commitment. It is therefore essential to promote trust among the team members. It is also important for the CEOs/administrators to engage the participants who have higher trustworthiness rather than inviting the members who do not trust each other. Competence-based trust reassures the team members about the efficacy of the team and strengthens their beliefs about the successful implementation of decisions through commitment. Trust based on competence plays a pivotal role in strategic decisions in hospitals.

Before discussing the results and their implications acknowledgement of the limitations of this study is warranted. First, as usual in surveys, self-report data are susceptible to biases associated with common method variance. Common method bias is a problem because it is difficult to determine whether the observed covariance among study variables is attributable to valid relationships or to common method variance. We addressed this problem by separating the responses on independent variables from dependent variables. It can also be argued that since the respondents were CEOs and senior level executives from hospitals who possess accurate knowledge common method bias would not be a serious problem (Podsakoff and Organ, 1986). Second, social desirability bias may be another concern of this study. However, the anonymity and confidentiality of the respondents is expected to reduce the social desirability bias (Konrad and Linnehan, 1995). Third, low response rate may raise issues of validity of the results from the present study. However, a comparison between the numbers of responses received and reported top management size showed that the sample represented 50 percent of all decision-making members for the participating hospitals. This response rate is consistent with the previous research (Amason, 1996; Simons and Peterson, 2000; Simons et al., 1999). As pointed out by Simons et al. (1999), "in studies that assess complex relationships among measured variables, such as the current one, sample selection bias unlikely to pose a threat (1999, p. 665). Finally, to the extent strategic decision-making process is similar across other industries, the results from the present study in healthcare industry become generalizable.

Despite these limitations, the present study offers several avenues for research in healthcare. First, the antecedents to competence-based trust need examination. As trust develops over a period of time, it is necessary to examine the gestation period over which trust blooms to produce desirable decision outcomes. Secondly, it is also quite likely that relationship trust (based on emotions) may play a vital role in

smoothening the person-related conflict among the members of the team and produce desirable outcomes. Further, future research needs to examine the CEO power dynamics and trust of the members on CEO in managing decision process affect the way in which members interact in decision platform. Some CEOs have power to control over the teams in conflict while others may not be able to do so. Finally, CEO discretion to invite members of his choice for decision platform may play a vital role in decision-making process. Overall, the findings from this study provide strong support and reinforce the argument that competence-based trust is a very important variable that is central to strategic decision making.

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Appendix
Strategic decisions made by the hospitals
(1) Joining with a large HMO contract with a competing hospital and then joining with a competing HMO/IPA to balance the market.

(2) Closure of satellite outpatient program.

(3) Building a new hospital for the community.

(4) Construction of new hospital 12 miles from existing facility and 10 miles from major competitor.

(5) Termination of HMO contracts and construction of a Cath Lab.

(6) Purchased neighboring rural hospital.

(7) (a) Development of master plan; (b) evaluation of home health, skilled nursing and acute rehabilitation services; (c) decision to implement a chief medical officer position.

(8) (a) Recruitment and retention; (b) productivity improvement; (c) service excellence.

(9) Decision to cancel an HMO contract that covered a large (20-25 percent) of the residents of the area. This decision had a major impact on financial viability.

(10) Decision to replace the hospital.

(11) Improvement of profitability.

(12) (a) New product development; (b) recruitment of physicians and nurses.

(13) (a) Reduction of workforce; (b) negotiate wage increases with nurses; (c) implementation of turnaround plan.

(14) (a) Health sciences strategic plan; (b) new university hospital design and size; (c) negotiations and children's hospital relative to a strategic alliance.

(15) (a) Reorganization of nursing services; (b) open new care sites; (c) efforts to reduce clinic wait times; (d) adherence to clinical practices guidelines.

(16) Build new inpatient and outpatient complex.

(17) Implement open heart surgery program.

(18) A decision to joint venture on ambulatory surgery center plus develop urgent care center and CT scan capabilities.

(19) (a) Development of a new strategy plan; (b) selection of a new Foundation President; (c) joint venture with another organization that establishes us as the premier and dominant (market share) founder of a state-wide specialty services.

(20) (a) Evidence-based medicine; (b) challenging perceived truths with facts; (c) CMS project will change this industry similar to DRG's.

(21) Improving access through expansion of facilities.

(22) Implementation of a Resident Recovery Model utilizing an internationally known and tested procedure.

(23) Strategy to control self-pay utilization.

(24) Restructure departments of hospital affiliates resulting in hospital organization.

(25) Implementation of computerized electronic medical records.

(26) To purchase a competing hospital.

(27) (a) Development of outpatient services; (b) cardiac cath lab; (c) wound care program; (d) MRI center.

(28) Building a new hospital in a new market.

(29) To expand ICU services and implement open heart program.

(30) Approval of $12 million bond issue for outpatient services building of 34K sq ft.

(31) Sell the hospital.

(32) Purchase of CT scan.

(33) (a) Maximize reimbursement of patient access process; (b) seek a strong health system to merge into; (c) determine what assets are disposable for cash flow.

(34) (a) Customer service; (b) changing the culture.

(35) Proforma development for new free standing facility.

(36) Changes in staff recruiting.

(37) (a) Decision to bring a comprehensive program of customer service excellent in an effort to differentiate ourselves from the market place; (b) bring forward a program to reduce medical errors.

(38) Spun of two separate product lines under the corporate umbrella.

(39) Remodel of nurse station and installation of new call system in hospital.

(40) Twenty-four-hour physician coverage in a long-term acute care hospital.

(41) To implement bar coding for patient medications and mod-passing.

(42) Recruit a surgeon.

(43) Focus on improving clinical quality even at the expense of the bottom-line.

(44) Improved salary schedule for staff.

(45) Complete IT conversion and implementation of clinical systems.

(46) (a) Resolve management program; (b) restructure organization for ongoing regulatory compliance; (c) building leadership and development strategies; (d) building better benefit package for the employees; (e) development of systems and processes that are efficient and effective.

(47) Plant expansion: A plan was developed and being implemented to add five operating rooms, 16 additional critical care beds, 95 additional private rooms over the next 24 months.

(48) Continued expansion of inpatient capacity and the commitment of the capital dollars required.

(49) Installing PACS and going to a digital format.

(50) Expanding market share and implement processes to ensure the highest quality and customer service.

(51) (a) Relocate to a new replacement facility; (b) recruit specialist physicians; (c) implement employee satisfaction survey and action plans.

(52) Emerge from Chapter 11 bankruptcy.

(53) Expansion of the number of outpatient locations from 3 to 5, adding two brand new, geographically dispersed locations.

(54) Prioritization regarding the growth of the facilities and geographical expansion.

(55) Physician growth (in numbers).

(56) Closure of the pediatric program.

(57) Reduction in bed capacity of one component of service delivery.

(58) Recruitment of new physicians to the community to succeed those current physicians approaching retirement.

(59) Development of 20-year strategic plan with proposals to replace a building, open new clinics in community and expand community specialty services.

(60) Decision to hire general surgeon and promote surgery services.

(61) Completion of move to the new campus.

(62) (a) Changing clinical practices to reduce length of stay; (b) development of a nine-year strategic plan that includes a replacement facility.

(63) Commitment to remain at our current location and expand our plant facilities.

(64) Creating new patient service – Ex chemical dependent unit.

(65) (a) Expansion of plant's and facilities; (b) revision of wage and salary program; (c) addition of new services.

(66) Developed written leadership principles that established behavioural parameters within which all levels of management would be expected to act.

(67) (a) Replace our vision to emphasize specialty care; (b) change care delivery to surgical focus; (c) restructure organization and resources towards safety initiative.

(68) Bed expansion.

(69) Community role and inpatient care.

(70) Decision on whether or not to offer services to the Beach Community.

(71) Restructure the revenue cycle process.

(72) Reorganization of medical coverage for the community.

(73) Change in culture.

(74) Service line modifications reducing emphasis from in-patient to outpatient services.

(75) Approval of a facilities master plan including land acquisition, a building expansion, and construction of a new building.

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