

Computer-Mediated and Face-to-Face Groups: Who Makes Riskier Decisions?

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Abstract

Although a significant body of research has focused on understanding the effect of media differences on group behaviors and processes, little is known about how media differences influence groups' risk-taking behaviors. This study reports on a laboratory experiment designed to understand the effects of the group communication environment (face-to-face or computer-mediated) on group risk-taking behaviors while subjects performed a hidden profile decision-making task. Results indicated that computer-mediated groups make riskier decisions than face-to-face groups, and their decisions shift farther away from the positions held by individual group members prior to interaction than in face-to-face groups. Consistent with prior research, computer-mediated groups reported lower process satisfaction, higher and more even participation, and higher intra-group conflict. Two rival theoretical explanations are put forth as to why computer-mediated groups made riskier decisions.

1. Introduction

Recent developments in communication technologies, combined with flatter organizational structures and geographically-dispersed employees, have changed the way in which groups interact [14]. Group meetings using computer-mediated communication systems are on the rise [21]. Consequently, ample recent research has examined the influence of computer-mediated environments on group processes, performance, and behaviors [4]. In this paper we report on the risk taking behaviors of computer-mediated and face-to-face groups, a relatively unexplored question in our quest to understand how computer-mediation influence group

processing and performance. Given the rapid and widespread deployment of computer-based communication in organizations, the findings from this research have important implications for both future research and practice.

In the next section, we briefly review relevant literature and develop several hypotheses. This is followed by a brief description of the research methods. Next, the data analysis methods are described and hypothesis testing is reported. Finally, the paper concludes with a discussion that focuses on interpreting the results and on examining the theoretical and practical implications of the study.

2. Literature review and hypotheses

2.1 Differences between computer-mediated and face-to-face groups

Many differences have been reported between computer-mediated and face-to-face groups. There is evidence that computer-mediated groups produce superior decisions [21], generate more ideas [11], and are more satisfied than face-to-face groups [9]. Particularly relevant to the current research are the results of three experiments that examined the effects of computer-mediated communication on the efficiency of communication, participation, interpersonal behavior, and group choice -- while reaching consensus on a choice-dilemma problem [23]. The study concluded that decisions reached by computer-mediated groups were further away from the members' initial individual choices than in face-to-face groups. In other words, final group solutions for face-to-face groups remained relatively close to the pre-group interaction preferences of the individual group members whereas the final group

solutions for computer-mediated groups were relatively distant to the pre-group interaction preferences.

With respect to risk-taking behavior, much of the prior research has focused on understanding the factors that lead to differences between group-based decisions versus those made by individuals [31, 10]. Early research established that groups tend to be more cautious than individuals [31], but work in the 1970s on "risk-shift paradigm" and "group polarization" [27, 20] concluded that, in general, group decisions reflect higher levels of risk than the average of the individual members. It has been argued that "fear of failure primarily deters an individual's tendency to take risks" [10]. However, in a group decision-making environment, where there is diffusion of responsibility among the group members, the fear of failure for each individual is less, enabling them to take riskier decisions.

We are not aware of any research that addresses whether the new forms of groups created by advances in technology (e.g., computer-mediated groups) make riskier decisions than the traditional face-to-face groups, or if the tendency of groups in computer-mediated environments will follow those of face-to-face groups. As the recent literature suggests [9], computer-mediated groups are in many ways quite different from face-to-face groups. It is possible that some of these differences may influence the level of risk taking within computer-mediated groups.

2.2 Hidden profile tasks

Researchers have also suggested that the experimental task should be carefully considered while conducting group research [15, 18]. Hidden profile tasks have become increasingly popular since the empirical studies of Stasser and colleagues [24, 25, 26] and by other researchers in the area of computer-mediated groups [4, 5, 17]. In these tasks the complete set of information required to complete the exercise is normally hidden from the group members. Different members possess different levels of information, and the group process is often required to pool the information to accomplish the task successfully. Hidden profile tasks, especially in the context of groups, are very relevant in modern organizations, where group members often are required to complete tasks about which they have limited information or where members of a group possess different or unique information [18].

Researchers suggest that group members often fail to share information effectively [24]. Dennis (1996a) Some studies concluded that computer-mediated groups (with approximately ten members) shared more information than non-computer-mediated groups, when addressing a

hidden profile task [4]. Other studies found no differences in the information sharing capabilities of computer-mediated versus face-to-face groups [17].

2.3 Decision outcome hypotheses

For generating ideas, a form of information sharing, research has consistently shown that computer-mediated groups have significant advantages over face-to-face groups [11, 4, 5]. Some researchers have argued that the increased participation within computer-mediated groups is due to the "parallelism" of the media [22]. In computer-mediated groups all members can enter information simultaneously, while in face-to-face groups only one person speaks at a time [2]. This parallelism exposes each member to every other member's thoughts and positions regarding a certain decision. Drawing on the "risky-shift" paradigm [15, 27], it can be argued that this social comparison will enable members to take more risks in the group. From this, we conclude our first hypothesis:

H1a: Computer-mediated groups will make riskier decisions than the face-to-face groups.

Additionally, increased and more balanced participation within computer-mediated groups has been a fairly robust observation [1]. The group polarization literature suggests that increased participation, discussion, and arguments lead to greater changes in the opinions of the individuals [20], and based on this literature, it has been argued that decisions reached by computer-mediated groups are further away from members' initial individual choices than decisions reached by face-to-face groups [23].¹ Given the strength of the theoretical arguments and the prior empirical results, we expect the prior findings to be robust to our current experimental setting, suggesting the following hypothesis:

H1b: The difference between individuals' initial position and the final group decision will be larger in

¹ From a practical standpoint, there is a need to replicate the results of the prior work in this area. While we expect our findings to replicate those of Siegel et al. (1986), their study was conducted during a vastly different era of computing. In the mid-1980s, the dominant computing technology was the mainframe with its Spartan monochromatic terminal interface; the personal computing environments of today provide a much friendlier and intuitive environment. Additionally, the level of familiarity with using computing technology by experimental subjects would likely be vastly different today, where computing technology has become commonplace especially for university students who act as research subjects. It is possible, therefore, that *some* of the results from the early studies of computer-mediated groups were artifacts of their computing era. Thus, given the evolution of the technology and the evolution of the sophistication of the subjects in using computing technology, it is important to learn whether these results can be replicated in a vastly different environment.

computer-mediated groups than in face-to-face groups.

The brainstorming literature [11] and the group decision making literature have found that computer-mediated groups engage in more divergent communication than do face-to-face groups [17]. When risky decisions, this lack of focus in the discussion (divergence) may act to limit the extent to which any single decision alternative is examined. Further, the failure to carefully examine specific decision alternatives in adequate depth may result in the selection of a sub-optimal solution [4, 5]. Additionally, the parallel nature of computer-mediated communication may also more readily reveal that others in the group are risk-takers, which can have a contagion affect on overall risk behavior of the group [15]. In summary, the failure to fully consider the consequences of solution alternatives and the exposure to greater risk taking behavior within the group interaction should result in computer-mediated groups making riskier decisions than their individual members. This leads to the following hypothesis:

H1c: Computer-mediated groups will make riskier decisions than their individual members.

On the other hand, face-to-face groups are less divergent in their communication, which is likely a result of the production-blocking phenomena [22] where only one person speaks at a time. As a result, face-to-face groups are more likely to surface and thus consider fewer alternative decisions [30]. Additionally, because face-to-face groups consider fewer alternative decisions and are therefore more focused in their discussions, they are also more likely to consider the broader ramifications of each alternative under consideration. In the context of making decisions that involve risk, it is therefore likely that face-to-face groups will have a fuller understanding of the relative risk associated with alternative solutions. Consequently, this understanding should discourage risk taking and this prediction is consistent with early research that found face-to-face groups to be more conservative than individuals [31]. This suggests the following hypothesis.

H1d: Face-to-face groups will make less risky decisions than their individual members.

Stasser and Titus (1985) Based on multiple experiments designed to examine the processes within a student council group entrusted with the task of selecting a presidential candidate, it was concluded that group members are not successful in pooling information when given hidden profile tasks [26].

Another study found that there was limited information exchange in both face-to-face and computer-mediated groups, and that there was no difference between the two [5]. Due to factors such as production

blocking, face-to-face groups often exchanged very little new information. For computer-mediated groups, it was suggested that the lack of information exchanged might have been due to the relatively more anonymous and depersonalized nature of mediated communication [5]. It appears that group members attach less credibility to the information provided by others in a computer-mediated environment.

Together, this suggests that groups – whether face-to-face or computer-mediated – fail to exchange information effectively, especially when information is uniquely known to only a subset of the members. To the extent that this information reflects consequences associated with alternative actions, group decisions may not reflect an appreciation for the risks associated with certain choices, leading to the following hypothesis:

H2: Groups whose members possess unique information required to fulfill a task, will make riskier decisions than groups whose members possess the full information.

2.4 Perceptual outcome hypotheses

There is evidence in the literature that computer-mediated and face-to-face groups differ with respect to group member participation, process satisfaction and level of inter-group conflict. Although these constructs have been examined in prior studies, their inclusion here is primarily to replicate these measures within the context of this study, as there is a need to build a cumulative knowledge of technology-supported groups [9].

Regarding participation, prior research has found individuals within computer-mediated groups to report higher participation than those within face-to-face groups [1]. This result can be attributed to the parallelism of the medium and to the increased structure of the communication process. This suggests the following hypothesis:

H3: Computer-mediated groups will report higher level of participation towards the group's solution than face-to-face groups.

Regarding process satisfaction, prior research has found somewhat inconsistent results [6]. Nonetheless, more recent work, especially for decision-making type tasks, has been more consistent in finding computer-mediated groups to report lower levels of process satisfaction than face-to-face groups [28, 17]. Because computer-mediated groups tend to have much more difficulty reaching final agreement, this acts to negatively influence process satisfaction. This suggests the following hypothesis:

H4: Computer-mediated groups will report lower process satisfaction than face-to-face groups.

Regarding intra-group conflict, it seems likely that the phenomenon of "flaming" in electronic communication -- the expression of uninhibited comments, use of strong language, and the like [23]-- is related to the impersonal nature of the media. Additionally, computer-mediated groups have more difficulty reaching agreement than do face-to-face groups [1]. Collectively, the depersonalization of the interaction and the greater difficulty in reaching agreement will influence the groups' perceptions of conflict within their interaction, suggesting the following hypothesis:

H5: Computer-mediated groups will report higher conflict than face-to-face groups.

3. Methods

3.1 Subjects

Two hundred and seventy four students enrolled in the spring and summer terms of an intermediate financial accounting course at a major U.S. University participated in an experiment, satisfying part of the course requirement. All subjects had completed nine hours of introductory classes on financial and managerial accounting. Subjects were also compensated with cash for participation in the study. Subjects were randomly assigned to three-person groups, each of which served as an executive compensation committee. The groups were then randomly assigned to four different experimental conditions, which included being assigned to computer-mediated or face-to-face groups, and being assigned to groups where group members either received full information or partial information about the scenario on which the experimental task is based.

3.2 Task

The task had two components to it. First, subjects were given a case that contained information about a growing retail company, its board of directors, and its executive compensation committee. Subjects were also informed that the company has a single shareholder and the shareholder is risk averse. They were then asked to refer to the information provided and make an individual choice about the type of compensation contract for the company's chief executive officer (CEO). To make the choice, subjects were given a 6-point scale of executive compensation options that ranged from 100% salary/0% bonus to 0% salary/100% bonus. In the second part of the task subjects discussed the same case with their group members and provided a group recommendation using the 6-point scale used in the individual recommendation.

3.3 Setting

The experiment was conducted in the business school of a large U.S. University located in the Midwest. The individual and the face-to-face group tasks were performed in regular classrooms. Members of computer-mediated groups were relocated to a computer lab after the individual part of the task was accomplished. The personal computers in the lab were connected through a local area network. Subjects entered into real time text discussion with other members of their groups using the chat feature of the Microsoft NetMeeting software.

3.4 Procedure

The experiment consisted of four different components. In the first stage, subjects met their group members for four-five minutes for introducing themselves and were then briefed by the experimenter on the nature and scope of the experiment. Subjects were then trained on risk assessment and on choosing an option from a set of alternative investments. After this, subjects performed the task individually before working in the group environments. Groups communicating through the computer-medium were instructed not to use any form of verbal communication. Further, in some of the groups, each of the members possessed part of the information required to calculate expected returns. In such groups, members had to pool in their information resources to make an informed judgment about the choice of contract. In the other groups, all members had full information required to complete the task. After working on the tasks, subjects completed a post-experimental questionnaire and were released from the experiment at the same time.

3.5 Measures

The dependent variables used were the group recommendation (contract choice) and the difference between the individual recommendation (contract choice) and the group recommendation (contract choice). The purpose of the first dependent variable was to examine whether computer-mediated groups made riskier decisions than face-to-face groups. The purpose of the second dependent variable was to capture the influence of the group interaction processes on individuals, and examine whether computer-mediated or face-to-face groups made riskier decisions. Apart from the dependent variables, the post-experimental questionnaire was also used to measure the perceptions of the subjects on the media (used as a manipulation check), group members'

process-related satisfaction, perceptions about the individuals' participation in the group process, and the nature of the task conflict under the different media conditions.

The questionnaire for assessing the media manipulation was drawn from an existing media richness scale [7]. Group participation and process satisfaction was measured using a standard scale [13]. Finally, task and group conflict was measured using the group conflict scale [19].

Separate factor-analysis was initially conducted on the different sections of the questionnaire to identify the factors and validate the instrument. A principal components analysis with varimax rotation was used. Cronbach's alpha was also calculated for all the items to ensure the reliability. Table 1 provides the results of the factor analysis and the reliability tests.

4. Results

4.1 Manipulation checks

Impact of the media on subjects' perceptions about the nature of the communication environment and their perceptions about the group interaction were used as the manipulation checks. To test the successfulness of the media richness and the group interaction manipulation, univariate ANOVAs were conducted. Results indicated that the type of media had a significant impact on the individual's perceptions about the nature of the communication environment ($F(1, 110) = 40.047, p = .000$) and the nature of the group interaction ($F(1, 110) = 29.102, p = .000$). Overall, results indicated that subjects in the face-to-face groups felt that the communication environment helped them to better understand each other, perform the task more effectively, and was more sociable and human, than the subjects in the computer-mediated groups.

4.2 Tests of decision outcomes

A two-way ANCOVA was used to investigate the influence of task type and communication media on the group recommendation, using the individual recommendation of the individual team members as the covariate.

Hypothesis 1a predicted that computer-mediated groups would make riskier decisions than the face-to-face groups. In order to conduct an ANCOVA, it is important to establish that there is a significant correlation between the dependent variable and the covariate. First, a correlation analysis was conducted between the

individual recommendation and the group recommendation. Results indicated that the correlation was significant ($r = .465, p = .01$). This established that the dependent variable and the covariate are correlated. Next, the ANCOVA was conducted which found a significant main effect for the communication environment ($F(1, 106) = 7.279, p = .008$) on the group recommendation, with the treatment means in the predicted direction (see Table 2: Group Recommendation). Thus, H1a was supported.

Hypothesis 1b predicted that computer-mediated groups would move further away from pre-interaction preferences than would face-to-face groups. An ANOVA found a significant main effect for communication media ($F(1, 107) = 4.047, p = .047$) with treatment mean values in the predicted direction (see Table 2: Group-Individual Recommendation); thus H1b was supported.

Hypothesis H1c predicted that computer-mediated groups would make riskier decisions than their individual members. A comparison of means in Table 2 shows that computer-mediated groups made riskier decisions than their individual group members. Thus, H1c was supported.

Hypothesis H1d predicted that face-to-face groups would make less riskier decisions than their individual members. A comparison of means in Table 2 shows that face-to-face groups made less risky decisions than their individual group members. Thus, H1d was supported.

Hypothesis 2 predicted that both computer-mediated and face-to-face groups would make riskier decisions when the members possess only part of the information required to fulfill the task versus when members possess the full information. Using the individual members as the covariate in the two-way ANCOVA, a main effect for task type approached significance ($F(1, 106) = 3.236, p = .07$), with treatment means *opposite* of the predicted direction. Thus, H2 was rejected. Interestingly, a communication media by task type interaction was significant ($F(1, 106) = 8.082, p = .005$); this finding will be examined later in the paper.

4.3 Tests of perceptual outcomes

To test the perceptual outcome hypotheses, a series of univariate ANOVAs were used to examine perceptions of process participation, satisfaction, and task-related conflict. Hypothesis H3 predicted that computer-mediated groups would report higher levels of participation than face-to-face groups. Results showed a main effect for communication media ($F(1, 110) = 6.217, p = .014$), with computer-mediated groups feeling more responsible for the group's final solution than face-to-face groups (see Table 2). Thus, H3 was supported.

Hypothesis H4 predicted that computer-mediated groups would report lower process satisfaction than face-to-face groups. A main effect for communication media was found ($F(1, 110) = 5.616, p = .020$), with computer-mediated groups reporting lower process satisfaction than face-to-face groups. Thus, H4 was supported.

Hypothesis H5 predicted that computer-mediated groups would report higher levels of conflict than face-to-face groups. A main effect for communication media was found ($F(1, 110) = 8.413, p = .004$), with computer-mediated groups reporting more task-related conflict than face-to-face groups. Thus, H5 was supported.

5. Discussion

The results of this study can be quickly summarized (see Table 3). Regarding decision-making outcomes, there were greater differences between the individual decisions and group decisions in the case of computer-mediated groups than face-to-face groups. Further, computer-mediated groups made riskier decisions than their individual members while face-to-face groups made less risky decisions than their individual member. Overall, computer-mediated groups made riskier decisions than the face-to-face groups. Contrary to the hypothesis, the task type (hidden profile versus full information) had no main effects on group decision making; however, an unexpected media by task interaction was found (discussed below). Finally, all perceptual measures were as expected with computer-mediated groups reporting higher responsibility and participation towards the group solution, lower process satisfaction, and higher levels of task conflict than face-to-face groups (see Table 3).

5.1 Interpretation of Results

The results of this study support the prediction that in computer-mediated groups there will be greater differences between the individual decisions and group decisions (Hypotheses 1). These findings seem to support the research done on group polarization. For example, Lamm (1967) it has been suggested that active discussion in a group causes more change from initial positions versus when only passively listening to a discussion. Further, many researchers have argued that in groups where there were more conflict and argument, there were greater changes in the opinions of the individuals [20]. Hence, in computer-mediated groups, where there was significant increases in discussion and conflict (due to the impersonal nature of the media) there was also a greater change in the individuals' opinions, and hence a greater

difference between the initial individual and the final group recommendation. This however contradicts an earlier study, which had argued that face-to-face communication can have a greater influence on one's opinion (especially if the communication is with one's friends, coworkers, or family) causing a greater divergence between the individual and group recommendations [16].

These results also support the prediction that computer-mediated groups will make riskier decisions than their individual members, whereas face-to-face groups will make less risky decisions, directly supporting the literature on group risk-taking behaviors. Risk is often "positively valued" in our culture and most people are therefore relatively risk takers [15]. So during a group discussion when one realizes that others are not as cautious as one thinks, he/she is more tempted to move towards a riskier decision. In this context, computer-mediated groups made riskier decisions than their individual members. This outcome is likely a result of the parallelism of the medium, which lead to greater participation (as measured by perceptions and consistently found in the literature) among members, and thus more exposure to the thoughts and opinions of others. Having been more exposed, members were more aware that others were also as risk taking, and hence opted for a riskier decision. In the case of face-to-face groups, production blocking may have led to one or more members dominating the discussion, leading to a lack of understanding of the degree of risk taking of all the members. In the absence of this information members may have been more reluctant to make a riskier decision, and the group ended up making a more cautious decision.

The riskier decisions made by the computer-mediated groups can also be explained by the GSS and the media comparison literature. In a recent study, it has been found that the computer-mediated groups processed very little information even though it was available to them [5]. In the context of risk-taking behaviors, when groups are making decisions that may involve certain degree of risk taking, in the absence of the capability to process the information, groups may end up making riskier decisions. In other words, though they might have the cumulative knowledge required to complete the task, their inability to process that knowledge and the distrust of the other members' information (depersonalization in computer-mediated environments leads to lack of credibility) may make them unaware of the seriousness of the situation, resulting in a riskier decision. In the case of face-to-face discussions, group members have to focus on one speaker at a time and will therefore be more likely to focus more on the same information. As a result, face-to-face groups are more likely to have a "shared" picture of the problem

at hand. This interpretation is consistent with the prior media research [3, 8].

Contrary to the predictions in Hypothesis 2, hidden profile tasks did not have a main effect on the risk-taking behaviors of groups (face-to-face or computer-mediated). Based on prior literature, it was hypothesized that groups would make riskier decisions when members possessed only part of the information as opposed to the entire task information. However, results indicated that the type of information possessed by the group members did not have a significant main effect on risk-taking behaviors of the group. This result further confirms some of the earlier conclusions made by Stasser and his colleagues [24, 26] that, groups in general are not successful in pooling and exchanging information amongst themselves, and that there are no significant differences between face-to-face groups and computer-mediated groups in terms of their information exchange capabilities [5].

There was, however, a significant interaction for task type and the group communication environment on the group decision, with computer-mediated groups with full task information making the riskiest decisions (see Table 2 – a lower value equates to greater risk). This result is likely an artifact of the pre-session individual decisions, where subjects in this treatment, on average, also made the riskiest decisions. The significant correlation ($r=.465$, $p=.01$) between individual pre-interaction decisions and the eventual group decisions (after interaction) provides strong evidence for this interpretation. It is, however, unknown as to why the pre-session individual decisions for the computer-mediated / full information treatment were significantly different from the other pre-session conditions given the strong experimental controls – scripted procedures, randomization, and so on – that were consistently applied to all groups in all conditions. Thus, void of any theoretical or procedural reasons as to why these groups were different in this condition, it is likely that this result is anomalous; of course, future research is needed to confirm or refute this interpretation.

All perceptual hypotheses – H3, H4 and H5 – were supported. For H3, computer-mediated groups reported higher participation than did face-to-face groups. This outcome is largely consistent with the prior literature where the parallelism of the electronic media has been put forth as the primary cause of this consistent result [1]. Likewise, H4 predicted that computer-mediated groups would report lower process satisfaction than face-to-face groups. Earlier research had suggested that the level of communication and process support available to the group members affect the process satisfaction. Specifically, studies have concluded that computer-mediated groups using Level-2 GSS (process structuring and modeling support) reported higher levels of process

satisfaction than when members were provided with a simple communication support (level-1 GSS) [1]. Since in the current study members were given only computer-communication support, the process satisfaction levels were lower. Finally, the increase in divergence caused due to parallel communication in computer-supported groups and the associated greater difficulty in reaching consensus was the likely cause of the higher levels of conflict reported by the computer-mediated groups (Hypothesis 5). However, since this study was a laboratory experiment, the results obtained should be interpreted cautiously and re-evaluated for other populations, problems, and settings.

6. Conclusion

6.1 Implications for IS research and practice

While a significant amount of IS group literature has examined the nature of group processes and behaviors in computer-mediated and face-to-face groups, there is a lack of literature examining risk-taking behaviors of such groups. This study attempts to fill that void by providing greater insights into the risk-taking behaviors of computer-mediated and face-to-face groups, especially when compared with their individual members. Through a controlled experimental study, this paper suggests that computer-mediated groups take riskier decisions than face-to-face groups, and also reaffirms the earlier findings reported in the literature, that decisions reached by computer-mediated groups are further away from their individual member choices [23].

Further, the current study extends past research conducted on group risk-taking by concluding that computer-mediated groups make riskier decisions than their individual member choices. The study presents two theoretical explanations (i.e. drawing on group polarization and media comparison) as to why computer-mediated groups made riskier decisions than their individual members, while face-to-face groups made less risky decisions. Future research should focus on understanding which of these theoretical approaches best explain the risk-taking behaviors of both face-to-face and computer-mediated groups.

Results of this study will have significant implications for managers as well. Most of the decisions made in an organizational setting involve some amount of risk. The differential impact of computer-mediation and face-to-face interaction on a group's risk-taking will enable managers to make more informed and effective decisions regarding the choice of communication medium

for group activities that involve a certain amount of risk-taking.

This study has uncovered certain isolated relationships between the type of communication medium (especially computer-mediation) and risk-taking behaviors of groups. Future research should focus on examining "how" and "why" such phenomena occur. It is hoped that this study will motivate researchers to examine other aspects of risk-taking behaviors in both computer-mediated and face-to-face environments.

7. References

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Table 1- Results of Factor Analysis

Factors	Variance Explained (%)	Reliability (Cronbach's Alpha)
Perceptions about the richness of the media	58.05	.8947
Group Interaction	65.61	.8224
Participation	78.66	.7168
Process Satisfaction	70.73	.8962
Extent of task-related conflict	65.59	.8161

Table 2- Means and Standard Deviations of all Measures

	<i>Face-to-Face</i>			<i>Computer-Mediated</i>		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
<u>Manipulation Checks</u>						
Media Richness	54	5.439	.862	60	4.046	1.392
Partial Task	27	5.463	.829	30	4.229	1.202
Full Task	27	5.417	.909	30	3.863	1.559
Group Interaction	54	3.857	.761	60	3.025	.862
Partial Task	27	3.861	.795	30	3.091	.715
Full Task	27	3.852	.741	30	2.958	.996
<u>Decision Outcomes</u>						
Group - Individual						
Recommendation	53	.189	1.455	58	-.362	1.411
Partial Task	27	.150	1.230	28	-.390	1.340
Full Task	26	.230	1.680	30	-.330	1.680
Group Recommendation	53	3.230	.990	58	2.710	1.270
Partial Task	27	3.110	.890	28	3.360	1.060
Full Task	26	3.350	1.090	30	2.100	1.160
Individual Recommendation	53	3.090	1.400	58	3.070	1.670
Partial Task	27	3.040	1.470	28	3.750	1.580
Full Task	26	3.150	1.350	30	2.430	1.520
<u>Perceptual Outcomes</u>						
Level of Participation						
Level of Participation	54	3.537	.686	60	3.875	.763
Partial Task	27	3.463	.619	30	3.717	.773
Full Task	27	3.611	.751	30	4.033	.730
Process Satisfaction						
Process Satisfaction	54	4.411	.614	60	4.113	.709
Partial Task	27	4.348	.655	30	4.127	.710
Full Task	27	4.474	.574	30	4.100	.720
Task Conflict						
Task Conflict	54	3.383	1.279	60	4.044	1.143
Partial Task	27	3.241	1.148	30	4.044	1.332
Full Task	27	3.525	1.406	30	4.044	.940

Table 3- Summary of Hypotheses Testing

Hypotheses	Dependent variable	Risk Taking Prediction	Outcome
1a	Group Recommendation	CM > FTF	Supported
1b	Group Recommendation - Individual Recommendation	CM > FTF	Supported
1c	Group Recommendation (CM) - Individual Recommendation (CM)	CM (group) > CM (ind.)	Supported
1d	Group Recommendation - Individual Recommendation	FTF (group) > FTF (ind.)	Supported
2	Riskiness of Group Recommendation (FTF and CM)	Hidden Profile > Full Information	Rejected
3	Participation	CM > FTF	Supported
4	Process Satisfaction	CM < FTF	Supported
5	Task Conflict	CM > FTF	Supported