

# How Do Collaborative Meeting Systems Affect the Bottom Line?

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As technology advances and our global economy strains to stabilize, what can leaders do to enhance productivity and improve their organization's bottom line?

## **Study Background**

Based on long-term, comprehensive research being conducted at Morehead State University (MSU), part of the answer to this question may be for leaders to conduct more effective global meetings. Research indicates that collaborative systems can save time and travel-related expense while enhancing the quality of meeting outcomes. The ultimate goal of this project is to design meeting models that work effectively across time, space and diverse cultures.

Dr. Donna McAlister Kizzier of MSU has been conducting a long-term, comprehensive study on the effectiveness of technologically mediated meetings. The results of her research is being shared with Facilitate Proceedings readers in an effort to not only disseminate the results of her work but to also tap the shared experience of meeting facilitators worldwide.

We have long known that technology is simply a tool to help us all work smarter. And, meeting facilitators understand how important it is to creatively design meetings to meet the needs of diverse corporate cultures. Although collaborative systems had been proven by decades of research to improve meeting effectiveness, this study strives to incorporate a creative element in meeting planning to encourage enhanced effectiveness across time zones and cultures worldwide.

The piece of Dr. Kizzier's research summarized in this blog focuses on the effect of six meeting venues on bottom line and organizational factors. The study so far has involved 737 participants who represent facilitators, participants and observers trained to critically assess effectiveness factors. Additional data is collected continuously to enhance the results and practical application of this work.

The meeting venues studied to date are:

1. Face to face meetings with collaborative systems (CS)
2. Face to face with collaborative systems
3. Teleconference (audio only) with collaborative systems

4. Audio and video with collaborative systems (web cam)
5. Asynchronous text messaging with collaborative systems
6. Synchronous text messaging with collaborative systems

The larger study addresses the effectiveness of the factors found in Figure 1. Previous research by McAlister-Kizzier (2002, 2004, 2006) extracted six constructs from the literature. In constructing the table, the author relied heavily, but not exclusively, upon the results from over 150 research studies conducted over a 12 year period at the University of Arizona, when collaborative systems were still in their infancy (Nunamaker et al., in Coleman, 1995; Nunamaker et al, 1997).

**FIGURE 1: LESSONS LEARNED FROM COLLABORATIVE SYSTEMS (CS) RESEARCH**

**Construct 1: Problem solving/decision making**

*CS can-*

- structure and focus problem solving efforts
- produce unique ideas of higher quality
- increase the amount of ideas generated during divergent process

**Construct 2: Group processes**

*CS can--*

- establish and maintain alignment between personal and group goals
- help role clarification
- minimize gender inequities
- achieve equal participation due to anonymity and parallel input
- increase energy and group focus due to active participation
- encourage more objective idea evaluation due to anonymity as continuous rather than discrete variable

**Construct 3: Leadership/Commitment**

*CS can--*

- increase the likelihood of “buy in” to the final results
- make a poorly planned meeting worse if leadership is ineffective
- be effectively used with diverse leadership styles, situations and organizational cultures
- help resolve counterproductive conflicts between leadership styles

**Construct 4: Bottom line issues**

CS can--

- reduce labor costs by 50% and project time by up to 90%
- improve the quality of ideas through anonymous constructive criticism
- lead to improved quality of results
- lead to higher participant satisfaction

#### **Construct 5: Situational issues**

CS can--

- successfully support multi-language meetings
- display different levels of satisfaction implementation in multicultural settings
- display behavioral differences across cultures in convergent activities, with high power distance cultures being more resistant
- be used effectively in the classroom
- be used effectively in Business Process Re-Engineering projects

#### **Construct 6: Organizational Issues**

*To enhance the success of CS---*

- individuals must have incentives to contribute to the group effort
- organizational incentives should be aligned with EMS
- maintain EMS competence in the organization
- consider successful use of EMS at geographical dispersed sites

### **Significance**

Previous research studied primarily same-time, same-place meetings using face to face facilitation. Developments in CS/groupware meeting technology have for many years enabled different-place, different-time electronic meetings to take place via the web. Meeting facilitators continually strive to achieve optimum meeting effectiveness across the globe.

Expected outcomes from this research are four fold. First, the results will help practitioners choose the highest quality and and cost-effective meeting modes for global meetings. Second, the results will help practioners conduct more effective meetings across time zones using emerging technology. Third, the results will enhance decision research related to CS; and fourth, the information can be applied in business classrooms to educate future global meeting facilitators.

## Research Methods

The broader study from which this study emerges uses a mixed methodology, incorporating quantitative and qualitative methods to triangulate results. In sum, the research methods for this study are powerful and use the latest research tools and methods. Among other research methods experts, Collier et al. (2003, p.74) posit that by combining qualitative and quantitative methods in creative ways, better research can result.

The research reported in this summary focuses on empirical analysis and discussion of the data analyzed for two of the six constructs examined in the larger, more comprehensive study. The constructs addressed for this report are the bottom line and organizational factors. To date, quantitative data from validated surveys have been analyzed from 487 participants, 124 facilitators & 126 observers.

Each meeting included 15-20 participants, 2-4 facilitators, and 3-5 observers. The agenda and time format was controlled across meetings. To simulate reality and keep meeting discussions fresh, study participants were varied for each meeting. Before meetings took place, participants were trained in the technology and facilitation techniques. Facilitators had the freedom to infuse personality and creativity within the time and agenda controls in the study. Each meeting used brainstorming and rating methods to conduct a 30 minute modified SWOT (strengths, weaknesses, opportunities and threat) analysis of an environment with which all participants and facilitators had several years of experience. Facilitate.com was used as the collaborative tool for the meeting venues that incorporated CS. Many forms of technology were available for facilitator use, including web cams, laptop computers, smart boards, office suites, web conferencing, etc. Facilitators used the text functions within facilitate.com for the text venues. Participants were all in the same meeting room for the face to face modes, audio and audio with video modes and were distributed remotely for the text modes.

The larger, comprehensive study addressed the following research questions: What are the perceptions of meeting participants and facilitators toward each construct/factor? Does a significant difference exist in perception toward each factor/construct among the meeting venues? What quantity and quality of ideas are generated for each of the meeting venues? Does a significant difference in quantity/quality exist among meeting venues? What are the perceptions of session observers toward six constructs (containing multiple factors) across meeting venues? Does a significant difference exist for observer factors among the meeting venues?

Figure 2 summarizes the constructs and factors addressed in the portion of the study reported in this blog report. The following three empirical research questions are summarized briefly:

What are the perceptions of meeting participants and facilitators toward each bottom line and organizational construct and factor?

Does a significant difference exist in perception toward each bottom line and organizational construct and factor among the meeting venues?

What are the perceptions of session observers toward the organizational factor across meeting venues? Does a significant difference exist in observer perceptions for organizational factor among the meeting venues?

**Figure 2: Bottom Line and Organizational Factors**

<p><b>Bottom Line Factors</b></p> <ul style="list-style-type: none"> <li>• Could reduce labor costs through such factors as productivity increases, travel time savings, etc.</li> <li>• Could improve the quality of ideas through anonymous constructive criticism</li> <li>• Contributed to improved quality of meeting results</li> <li>• Lead to higher participant satisfaction</li> <li>•</li> </ul> <p><b>Organizational Factor</b></p> <ul style="list-style-type: none"> <li>• Could be used successfully at geographically dispersed sites</li> </ul>
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**Results**

Table 1 summarizes the results of Dr. Kizzier’s empirical research on the bottom line and organizational factors. A brief summary of the results follows the table.

**TABLE 1**  
**FACILITATOR, PARTICIPANT AND OBSERVER COMPOSITE RESULTS**  
**BOTTOM LINE AND ORGANIZATIONAL FACTOR EFFECTIVENESS BY MEETING VENUE**

Constructs and Factors	Meeting Venue					
	Face to Face without EMS	With EMS				
		Face to Face	Audio	Audio & Video	Synch Text	Asynch Text
<p><i>1 = most effective</i></p> <p><i>6 = least effective</i></p>						
<b>Bottom line construct</b>	6**	1*	5	2*	4	3
BL 1: Ability to reduce labor costs	6**	3	5	2	4	1
BL 2: Improved idea quality	5**	1*	3 (tie)	3 (tie)	4	2

BL 3: Improved meeting results quality	3	1*	5**	2*	4**	6**
BL 4: Higher participant satisfaction	3	1*	5**	2*	4	6**
Org 1: Geographically dispersed effectiveness (Participant and Observer)	6**	3	5	1	4	2
Org 1: Geographically dispersed effectiveness (Observer)	6**	2*	1*	3*	4	5

\*significantly more effective for this factor/construct

\*\*significantly less effective for this factor/construct

When the goal of a meeting is to achieve bottom line advantages, the most effective venue choice, according to facilitators and participants, is face to face with Collaborative Systems (CS). This face to face venue trades off increased costs to achieve high participant satisfaction, high quality ideas and effective meeting results.

Facilitators and participants reported web conferencing with audio and video capability with CS to be an effective second choice to achieve bottom line results. Although asynchronous text messaging with CS was rated to be the most effective to reduce labor costs, it was rated significantly less effective than the other venues to achieve quality meeting results and high participant satisfaction. Asynchronous text messaging can overcome time differences, but is not perceived as effective to achieve bottom line and organizational effectiveness.

The results suggested that when the goal of a meeting is to achieve effectiveness at geographically dispersed sites, audio and video (using a simple web cam) with a rich CS system such as FacilitatePro was perceived by participants and facilitators as the most effective meeting mode. Readily available inexpensive or web conferencing tools can be used to achieve this effect across time and space. Today's tools enable archiving/recording of the meeting for enhanced time and location flexibility.

Based on the factors studied, all CS-enhanced venues were perceived as effective in global environments; however, meeting observers perceived audio with CS and audio and video with CS as the most effective venues across time zones. It was interesting to note that with enhanced video quality of more recent web cams and the ability to archive/record video and audio, the effectiveness of this mode has increased over time.

This research also assessed the effectiveness of face to face meetings without CS: these were significantly less effective to achieve any of the bottom line factors studied.

So, if you want to conduct an effective meeting with high quality results across the globe, save wear and tear on your employees, and save on travel costs, consider supplementing

your facilitate.com meeting with web cams. If you can afford to conduct the meeting face to face, face to face with a good CS system is still the most effective approach.

For readers desiring to review a more detailed report, this study is published under Dr. McAlister-Kizzier's name in both the Journal of Applied Business and Economics (ISSN# 1499-691X) Volume 10(4), 2009 and in the Proceedings of the National Business and Economics Society Ninth Annual Conference, March 11 - 14, 2009, St. Kitts.

Dr. McAlister Kizzier will continue to share additional results of these long-term comprehensive studies on this blog to inform those who facilitate meetings using technology. This research is being conducted independently by Dr. McAlister-Kizzier without support from any organization that provides meeting technology. The research reported here was partially supported by a fellowship awarded by MSU's Office of Research and Creative Production and a research sabbatical awarded by MSU. Dr. Kizzier can be contacted at [kizzier1234@earthlink.net](mailto:kizzier1234@earthlink.net) or [d.kizzier@moreheadstate.edu](mailto:d.kizzier@moreheadstate.edu)