

# E-Collaboration as a Tool in the Investigation of Occupational Fraud

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## INTRODUCTION

E-collaboration has become a staple of productivity in organizations of all sizes and types in the last decade. As the Fortune 500 companies have now moved to a 100% participation rate in a blended e-mail/instant messenger communication environment, it is estimated that 3% to 6% of the leaders, including such names as General Motors, Microsoft, and Boeing have even instituted official corporate blog sites (Bruner, 2005). As the techniques and uses of e-collaboration become more pronounced in firms, the need for related guidance in the occupational fraud examination field is growing. While both the theoretical and applied e-collaboration literatures are increasing, this is a relatively unexplored area in the field of fraud examination.

Fraud can be widely classified as either fraud *against* or *on behalf* of the organization. While fraud *on behalf* of the organization, such as financial statement fraud, has made the most sensational headlines recently (i.e., Enron, WorldCom, Arthur Anderson), it is occupational fraud *against* the organization that has the most widespread effects. In its most recent account on occupational fraud (ACFE, 2004), the Association of Certified Fraud Examiners reported that the average organization loses 6% of revenues to occupational fraud and abuse, and these losses cut across virtually every size and type of institution.

The default model typically used for reacting to occupational fraud against the organization follows four traditional steps (Albrecht, McDermott, & Williams, 1994). First, an *incident* occurs. Second, an *investigation* ensues centered around interviewing and document examination. Third, at the end of an investigation, a *resolution* is determined on what action, if any, is to be taken. Finally, the company chooses to *act* (or not act) publicly or legally related to the fraud occurrence.

The purpose of this article is to blend previous research in the fields of e-collaboration and fraud examination. Specifically, compensatory adaptation theory (Kock, 1998) is used as a lens through which

to model the optimal use of e-collaboration during the aforementioned second step of the default fraud model; the investigation process of occupational fraud. Finally, examples of investigatory pros and cons are presented to illustrate the model's approach towards local optima usage points.

## BACKGROUND

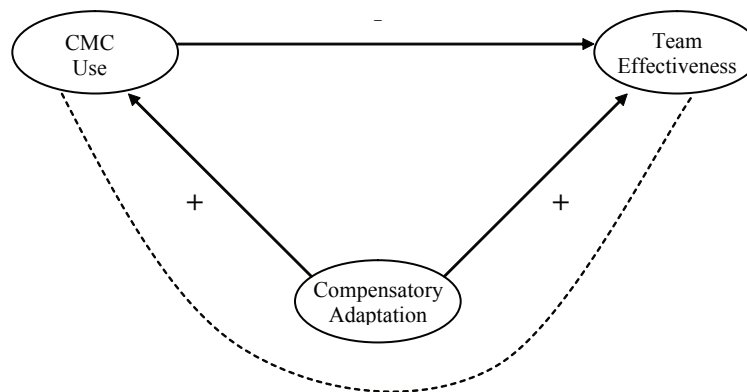
### E-Collaboration Research

The use of computer-mediated communication (CMC) has become a widespread tool in the application of work-related tasks (see Trevino, Daft, & Lengel, 1990; Trevino, Webster, & Stein, 2000 for a comprehensive and longitudinal discussion). A range of suppositions have been applied to explain the various dimensions of CMC, and how these facets interact to enhance or detract from task effectiveness. Three theories have developed over the past 40 years which have become a staple in the information delivery literature. These theories of social presence, media richness, and compensatory adaptation are the basis upon which the optimal use of e-collaboration techniques in fraud examination will be explored.

Social presence theory was first put forth in the 1970's by the Communications Studies Group. As described by Short, Williams, and Christie (1976), the theory describes "the degree of salience of the other person in the interaction and the consequent salience (and perceived intimacy and immediacy) of the interpersonal relationships" (p. 1).

Extending this generic interaction, the social presence theory essentially illustrates that differing communications media causes changes in the degree of social presence, and these changes cause a difference in interaction itself. In the context of CMC, this theory predicts that as a "nonverbal" form of communication, social presence is diminished when compared to face-to-face communication. CMC lacks facial expressions,

Figure 1. Compensatory adaptation model



voice tone, inflection, gaze, posture, dress, and even environmental décor. Therefore, in the a priori, this theory predicts that the use of computer-mediated communication, in any form and to any extent, would lower the effectiveness of a fraud examination which employs it in lieu of a face-to-face investigatory technique.

During the following decade, the theory of social presence was refined and tested by researchers, bringing about a rival though complementary theory of media richness. Media richness theory (Daft & Lengel, 1986) classifies communication media along a “richness” continuum. Daft, Lengel, and Trevino (1987) categorizes “richness” as a media’s ability to carry nonverbal cues, convey personality, provide rapid feedback, and support natural language. Like the social presence theory, media richness theory predicts that CMC conveys less “richness” than face-to-face communication. Therefore, this reinforces the notion that using CMC as a fraud investigation technique should produce suboptimal effectiveness at every level of incorporation.

Sallnas, Rasmus-Grohn, and Sjoström (2000) illustrates that, while social presence theory and media richness theory were developed during the pre-Internet era of communication, they still widely influenced CMC research. However, a recently growing body of empirical studies has failed to support this linear relationship between richness/presence and task effectiveness (Lee, 1994; Markus, 1994; Ngwenyama & Lee, 1997). These studies illustrate that users may actually choose “lean” communication media for secondary reasons, and will modify their behavior independent of the richness/presence level in a compensating manner (Kock, 2004).

Compensatory adaptation theory (Kock, 1998, 2001) attempts to explain these recent empirical findings by a U-shaped effectiveness adaptation model.

This theory first recognizes the inherent negative effect that using CMC will have on task effectiveness (as predicted by the social presence and media richness theories). The compensatory adaptation theory then argues that a team (such as a fraud investigation team) will adapt to these negative effects by employing compensating behavior. According to Kock, Lynn, Dow, and Akgun (2006), this compensating behavior produces an offsetting indirect positive effect on task effectiveness to produce a neutral impact on the quality of team outcomes.

Paradoxically, the theory even suggests that in some situations, this compensatory adaptation behavior may even result in positive outcomes, causing team performance to actually be more effective using CMC than by using only face-to-face communication. It is this paradox first identified by Kock (1998) that explains how humans tend to overcompensate for computer-mediated obstacles and achieve even better outcomes than if those obstacles had never been present in a given task. The remainder of this paper will examine Kock’s paradox of task effectiveness using compensatory adaptation behavior through the lens of an occupational fraud examination.

### Fraud Examination Research

The root of the fraud examination process is the fraud triangle. While there are limitless ways to perpetrate a

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