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Michael Cuellar
Georgia State University

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A Study of the Nature of the Deaf Effect Response to bad news Reporting

Michael J. Cuellar
Georgia State University,
Computer Information Systems Department
35 Broad Street, Atlanta, GA 30303 USA
mcuellar@cis.gsu.edu

Abstract

While escalation of commitment is well known in the IS literature, a recent body of literature has arisen focusing on organizational communication as a cause of escalation. Most of this literature has focused on the failure of organization members to communicate bad news about project status. In this dissertation, I focus on the "deaf effect," the failure of managers to hear, respond to or accept reports of project problems and change a failing course of action. I examine the small amount of extant literature on this phenomenon, construct an individual level conceptual model of how this effect might occur and then test that model in three studies: a laboratory experiment in which tests the basic framework of the model; a multi-cultural experiment in which we add cultural variables to the model; and a case-study in which we examine how project status is manipulated in the process of communication.

Introduction

The escalation of commitment to a failing course of action is a well-known phenomenon in IT project management. Much work has been done in researching why managers continue to commit resources in the face of negative signals about the status of projects (Keil 1995; Keil 2000; Keil et al. 2000; Keil et al. 2003; Staw 1976). Information systems project failures typically exhibit ample warning signs of impending failure, and in some cases, these warning signs are frequently ignored. (Computer Business Review 2006). In many cases, there are team members or even a single individual that seek to call

attention to critical issues and ask for a delay or change of course in the project direction. In those cases, it is important to know why senior management did not heed the "bad news reporter" who warned them that the project was in danger of failing. This failure to heed the bad news reporter has been called the "Deaf Effect" (Keil et al. 2001).

Previous Literature

The Deaf Effect is a relatively unstudied area. Keil and Robey (2001) in a study of IS auditors coined the term "deaf effect" which they used to define the phenomenon of when an individual or an organization did not act upon an assertion of a major problem within a project. They described a number of situations in which auditors found the organization deaf to their reports of bad news, but did not hypothesize reasons for its occurrence. Cuellar et al (2006) in a laboratory study which manipulated the credibility of an auditor as the bad news reporter, found that the credibility of an auditor reporting bad news about a project was positively associated with the perceived relevance of the message to a decision maker and that this perceived relevance was positively associated with a decision to discontinue a failing course of action.

This Dissertation

In this dissertation, I will use a multi-paper model to examine the deaf effect response to bad news reporting in IT project management. In these papers, I will outline a model of the deaf effect at the individual level, test it in a laboratory experiment; replicate the experiment in multiple geographies to further examine if cultural issues have a differential effect and how these different effects can shed light on the nature of the phenomenon. Lastly, I will do a case study of a project which experienced the deaf effect to examine whether the model holds within a working project and to examine the organizational factors that may be associated with the deaf effect.

Paper 1 – Individual Level Model Creation and Testing

The research reported here provides a description of conditions under which the deaf effect is likely to occur and an individual level model of how the deaf effect occurs. Using two anecdotal examples of the deaf effect from the IS literature to sensitize myself to the deaf effect conditions and Evans' (1989) Heuristic Analytic Theory of decision making and adding insights from Miceli and Near's (1995) theory of whistle-blowing effectiveness, I constructed an individual level theory of the deaf effect response to bad news reporting. The theory was then tested by using a role-playing laboratory experiment involving 105 undergraduate student subjects. The subjects were placed in the role of a project leader who had just received a report of serious problems with their project. The subject had to decide whether to implement the system or hold it for further testing. Credibility of the reporter and role prescription of the reporter were manipulated and risk perception and risk propensity were measured. The results of a Partial Least Squares (PLS) analysis suggest that when a decision maker

perceives a relevant message, s/he is willing to de-escalate the project. The credibility of a bad news reporter, role prescription and risk perception were found to be key factors in the determination of message relevance. In addition to perceived relevance, risk perception and risk propensity were found to be key factors in the decision to change the current course of action. Also, the Sitkin and Weingart (1995) risk framework was extended to include decision maker confidence in their abilities as having an effect on risk perception and propensity.

Paper 2 – Replication Study of Cultural Effects on Deaf Effect Model

This paper will report on a study replicating the first paper across different cultures in order to identify any effects that culture may have on the occurrence of the deaf effect. I have hypothesized that collectivism, uncertainty avoidance, power distance, performance orientation and future orientation will have an effect on the occurrence of the deaf effect. Institutional Collectivism will have a positive moderating effect on role prescription and a negative direct effect on the decision. This may occur because in collectivist cultures, the individual subordinates himself to the team. If the organization has determined that the reporter's role is to report on projects, the subject will be more likely to place credibility on them and thus consider their report relevant and change the course of action. Uncertainty avoidance will have a similar moderating effect on role prescription and a negative direct effect on risk propensity. Here, cultures like to have defined rules and to avoid risk. Therefore, they will place more credibility and hence relevance on the report of a role prescribed reporter and combined with a desire to avoid risk, will seek to change the course of action. Power Distance will tend to decrease message relevance and increase the likelihood of continuing the same course of action. Power distance cultures put an emphasis on the power of the management. Since in this scenario, the management is pressuring the subject to put the project into production, therefore, the relevance of the reporter's message will be lessened and they will tend to be more willing to maintain the current course of action. Performance orientation places the focus on meeting project goals. This orientation will therefore place less relevance on the report and be more likely to put the project into production. Future Oriented cultures place emphasis on achieving good results, and will therefore have the opposite effect from performance orientation. They will tend to increase the message relevance and decrease the likelihood of continuing the same course of action.

While the instrument and data collection mechanism will be identical to that of the first paper, additional questionnaire items have been added to collect cultural information. For this purpose, I am using the GLOBE measures (House et al. 2002). These metrics have been subjected to extensive statistical validation and appear to be superior to those used by Hofstede (2001). I have selected the following geographies based on the GLOBE analysis of cultural practices in order to gain access to populations that display different combinations of the cultural characteristics: United States, Germany, South Africa (both

white and black subcultures), a Confucian Asian Country and either a South American or Middle Eastern country. I have commitments for the three named countries and am working to identify co-workers in the two remaining geographic locations. At present, all geographies report that no translation into the native language is required as the students are reported to have good facility with English.

As in the first paper, I will be using PLS to perform the statistical analysis. The GLOBE measures have only been validated at the societal or organizational level; therefore, I will collect the data on the cultural dimensions for each individual and then average the results to create measures for each geography. These measures will then be associated with each subject's responses to the original questionnaire for the statistical analysis. Additionally, given the moderating effects expected, I will need to check for confounds between mediation and moderation as well as to verify measurement invariance between the geographies.

Paper 3 – Case Study of the Deaf Effect

While some of the effects of the individual decision maker's cognitive map on the decision will have been examined in the previous studies, what has been largely untested so far are the nature and the strength of effects the organizational environment has on the decision maker. Another additional area that has not been investigated is the impact that message characteristics exert on the receiver. I propose to perform a case study of an existing project in order to investigate these two questions as well as to perform a validation of the model developed in laboratory experiments.

We have identified a potential research site in the U.S. Department of Homeland Security's US-VISIT project that is designed to create an entry and exit capability to track visitors to the U.S. We will conduct a series of semi-structured interviews with project personnel to gain their understanding of the project context and narratives of how the decisions to continue/discontinue courses of action were made. The number of interviews and subjects are not determined at this point. However, we will seek to identify those project members who made, influenced or sought to influence decisions to continue or change courses of action. As we do these interviews, we will do some initial analysis to identify themes. These themes may drive us to do initial interviews with previous subjects. These interviews will be recorded and then transcribed into text files. The set of narratives will then be subjected to further content analysis. The process of iterative reading and coding and follow up questioning will continue until a local stability is experienced when the researchers encounter a text.

We will use textual narrative analysis, content analysis and discourse analysis research techniques to reduce and extract meaning from the data. These analysis techniques have been used has been used in different studies within information systems (IS) and outside of IS studies (Alvesson et al. 2000; Klein et al. 1996) We anticipate that analyzing the various

reports as part of this discourse taking place in an emotionally charged and emergent context will yield a number of plausible narratives from which we will be extracting themes and inferences.

While we are beginning with no established set of codes, we expect to find the constructs and concepts we have identified in the preceding text and models. The question is how or if those constructs are represented in the language people use and the audit report texts. The coding protocol used with each project report involves multiple readings through the transcripts to identify relevant portions of the text. With each pass through the data we assign text fragments to one of content codes representing reasons for decisions or background information using open coding to establish initial characterizations of concepts.. Two coders will perform this analysis which will then be reconciled with each other to establish a jointly agreed upon set of codes and coding assignments. This iterative coding provides cues as to when further interviews with project participants are required. The interviews afford the chance to test and validate the factors identified in the project audits. We anticipate that it will enrich the understanding of the relative importance and character of the project risk factors we identify.

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