Relationship between Information Richness and Exchange Outcomes: Moderating Effects of Media Richness and Governance Mechanisms

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ABSTRACT

The present study identifies the richness levels of various Internet media and empirically examines the moderating effects of Internet media richness (rich and lean media) and Internet communication governance mechanisms (legal contracts and relational norms) on the relationships between rich and lean information communication, and exchange outcomes. This study uses regression analysis to analyze data collected from 284 Chinese companies. The analysis reveals that: (1) Rich information exchange is effective when rich Internet media is frequently used. Conversely, the effectiveness of lean information exchange is not significantly affected by the frequent use of lean Internet media; (2) While lean information exchange is effective when legal contracts are extensively utilized as a governance mechanism, rich information exchange is effective when high levels of relational norms exist; and (3) Lean information exchange is effective when a high level of plural form governance (i.e., a combination of relational norms and legal contracts) exists.

Keywords: Governance Mechanism, Internet Communication, Media Richness Theory, Purchasing Performance, Supply Chain Management

INTRODUCTION

Daft and Lengel’s (1984) media richness theory (MRT) has originally claimed that the computer-based communication channel is low in the level of media richness and thus incapable of carrying rich information (i.e., information with capacity to provide substantial cues and a new understanding). However, Internet technologies have greatly changed the way that companies conduct intra- and inter-organizational communication. Notably, many of these Internet media including email have been frequently used to exchange rich information (Ambrose, Marshall, 2003).
Fynes, & Lynch, 2008; A. S. Lee, 1994; Markus, 1994). Thus, it appears that the low richness of electronic media asserted by Daft and Lengel (1984) may not always hold true, particularly in the environment of Internet communication. Although the original MRT argument related to computer-mediated communication has already become outdated, its theoretical framework and underlying assumptions still play a key role in the development of information theory. A number of recent studies have applied MRT in their endeavor to examine the effectiveness of various Internet communication tools, such as online discussion forum (Balaji & Chakrabarti, 2010), instant messenger (Sheer, 2011), and Web site (Cho, Phillips, Hageman, & Patten, 2009).

However, to date, there has been little empirical research on ascertaining the richness levels of diverse Internet communication media, which should be an initial and essential step to take in applying traditional MRT to today’s advanced information systems environment. For example, most of the prior studies grounded in MRT (Cockrell & Stone, 2011; e.g., Fulk, Schmitz, & Ryu, 1995; A. S. Lee, 1994; Ngwenyama & Lee, 1997; Vickery, Droge, Stank, Goldsby, & Markland, 2004) have either focused on a single Internet medium, such as email or e-chat (Cockrell & Stone, 2011; e.g., Kock, 1998; A. S. Lee, 1994), or treated all Internet media as having the same media richness level (Vickery et al., 2004). Yet, there are various types of Internet media that have different degrees of capabilities in delivering information as communication channels. For instance, unlike Internet video conferencing, it is very difficult for the sender and the receiver to communicate information through email in a real time fashion. Therefore, the lack of consensus among researchers on the richness levels of diverse Internet media makes it difficult for managers to determine how their limited financial and human resources can best be allocated to various Internet-based communication technologies to effectively exchange necessary information and data with trading partners.

Furthermore, when it comes to inter-organizational Internet communication, communication effectiveness depends not only on the media used (Ambrose et al., 2008; Chen, Yen, Hung, & Huang, 2008; Neureuther & Kenyon, 2008) but also on the governance mechanisms adopted, under which the communication activities are performed (Mohr et al., 1996), they could greatly affect communication outcomes (Hannås & Andersen, 2011). Accordingly, we suggest that companies consider two major factors in their endeavor to achieve effective Internet communication with trading partners: (1) the selection of appropriate Internet media and (2) the adoption of appropriate governance forms. Therefore, an Internet communication model encompassing these two key variables would be desirable. The purpose of the present study is to empirically examine, in the context of inter-organizational Internet communication, the moderating effects of media richness levels and governance mechanisms on the relationship between information richness levels and exchange outcomes.

THEORETICAL FOUNDATION

MRT in the Context of Internet Communication

Daft and Lengel (1984) suggest that information could be broadly classified into two groups: rich and lean information. Between these two, rich information is more capable than lean information in reducing equivocality on the receiver side (Daft & Lengel, 1984; Vickery et al., 2004). Similarly, Daft and Lengel (1984) also propose a classification scheme for communication media based on the capability to support exchange of rich information. In order of decreasing richness, they are: (1) face-to-face, (2) telephone, (3) personal documents, such as letters and memos, (4) impersonal written documents, and (5) numeric documents. Specifically, Daft and Lengel (1984) use four criteria in the
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