A Cross-Cultural Analysis of Communication Tools and Communication Outcomes

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ABSTRACT

Computer mediated communication (CMC) technologies have benefited business organizations in many ways. Although there have been numerous studies on email use, studies have only begun to emerge regarding use patterns of instant messaging (IM). This study investigated the use of email and IM within two different cultural settings: United States and Taiwan. Students enrolled in MIS courses from each country were split randomly into the IM and email groups for a problem-solving assignment. The variations of communication outcomes (as measured in volume, quality, and use satisfaction), are checked against two categorical variables (i.e., culture and communication tools), and at the same time controlled for perception on tool ease of use. Results show that culture and communication tools jointly affect all three outcome variables individually. The main effects were also statistically significant for volume and quality, but not for satisfaction. Respondents from different cultures prefer different communication methods, which are also collectively constrained by other factors like preference over contextual information and social norms. Such a difference in media preference, combined with media traits jointly affects the outcomes of communication. Managerial implications are provided.

Keywords: Communication Tools, Computer-Mediated Communication (CMC), Cross-Cultural Studies, Instant Messaging (IM), Media Richness Theory (MRT)

INTRODUCTION

Issues about technology use in different cultures are becoming more important due to increasing reliance on global work teams in today’s business environment (Huang & Yen, 2003). Business partners or work teams located in different geographic locations often have to work under a similar IT platform to minimize technology incompatibilities. Yet, an IT application that is favored in one culture due to compatibility with culture norms and fads may not be considered useful or easy to use in another culture (Guo,
Tan, Turner, & Xu, 2008). An example is the red color that is used to denote stock prices going downward can easily cause confusion in cultures where the same color carries the positive, increasing, and going upward meaning. Culture consists of beliefs, value systems, norms, morals, myths, and structural elements of a given organization, tribe, or society (Watson, Ho, & Raman, 1994). There is evidence in the literature that shows that culture has an effect on individual’s behavior, e.g., technology acceptance (Schepers & Wetzels, 2007; Srite & Karahanna, 2006; Straub, 1994; Tung & Quaddus, 2002), media selection (Chau, Cole, Massey, Montoya-Weiss, & O’keefe, 2002; Chen, Yen, & Huang, 2004; Choe, 2004; Shirani, Tafti, & Affisco, 1999; Srite & Karahanna, 2006; Straub, Keil, & Brenner, 1997; Straub, 1994) and group decisions (Zhang, Lowry, Zhou, & Fu, 2007). Another work (Guo et al., 2008) shows that the difference in preference of instant messaging (IM) and email between China and Australia is also attributed to culture. Therefore, culture is an important element when choosing investment options in communication media, especially for those environments with culture diversity or projects that require collaboration across multiple countries.

Media richness theory (MRT) has generated much interest in IT, since many IT applications are essentially designed to facilitate or improve communication. In the context of IT, richness in media varies across software tools when they are used to reduce different degrees of uncertainty and equivocality (Daft & Lengel, 1986). Rich media are closer to our face-to-face communication, where abundant visual and auditory cues are available during communication. Not all rich communication cues are used or even preferred uniformly. Cultural or societal norms frequently influence how individuals utilize communication media. For example, the preference of social-relational aspects of communication has led Japanese respondents to complain the lack of verbal and nonverbal backchannel responses with answering machines, but none of the American respondents considered that a problem (Miyamoto & Schwarz, 2006). The net result is a higher phone call abandon rate for the Japanese respondents when they reached the answering machine. A similar finding is reported in Massey, Montoya-Weiss, Hung, and Ramesh (2001), where participants of Asian origin considered groupware a better fit to deliver the intended message while U.S. participants found it difficult to sort out the exact information they needed from among the multitude of information that groupware provided. As these authors explained, the difference is mainly attributed to culturally driven communication behavior where Asian cultures tend to prefer high context (i.e., additional information required in addition to straight facts) communication. In sum, culture also plays a role in shaping the preference over how communication media are used.

Therefore, multiple sources of influence jointly contribute to the outcome of communication, but very limited research is available to shed lights on the role of this joint effect and its resulting outcome. In the present study, our focus is the joint effect of culture and media richness on several types of communication outcome. In examining culture and media use for the study, we are interested in not just culture difference in media selection, but also the patterns of outcome derived from such a difference. Therefore, two questions guide our investigation throughout the study. (1) Does culture have an effect on the variation of communication outcomes for the same communication tool? (2) Is the effect on communication outcomes jointly provided by differences between culture and communication tools?

As for the communication media, our focus is on email and IM that are usually considered on two different ends of media richness (Lancaster, Yen, Huang, & Hung, 2007; Huang, Hung, & Yen, 2007). The two communication tools are chosen for several reasons. First, email is one of the most studied electronic communication tools, that is widely accessible and consistent across different platforms (Markus, 1994; Rice, 1992; Rice & Shook, 1988), while IM rapidly gains popularity in the business environment (Perera, 2001; Shukla, 2003). Second, IM’s many features allow participants to present
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