Does Within-Culture Variation Matter?  
An Empirical Study of Computer Usage  

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ABSTRACT  
This article examines within-culture variance in the influence of values on perceptions and use of information technology (IT). Based on cross-cultural research, we suggest that cultural values influence technology acceptance and use. Specifically, we argue that masculinity/femininity and individualism/collectivism directly influence personal innovativeness with IT, computer anxiety, and computer self-efficacy, and have a mediated effect on perceived usefulness, perceived ease of use, and use of IT. Overall, analysis provides support for the research model. Our results suggest that masculinity/femininity influences computer self-efficacy, computer anxiety, and personal innovativeness with IT. We also offer implications for research and practice.  
Keywords: culture; personality; technology acceptance  

INTRODUCTION  
Because migration has resulted in increasingly diverse nation states, information technology (IT) managers have had to develop IT implementation strategies that accommodate diverse cultural values in organizations. Within the existing cross-cultural MIS literature, researchers have examined national culture’s influence on IT use in organizations. In general, culture has been synonymous with national boundaries, but a nation could be composed of people of various cultures, and these cultures could also be present in more than one country (Straub, Loch, Evaristo, Karahanna, & Srite, 2002).  
Despite challenges posed by globalization for IT managers, limited management information system (MIS) research has examined the cultural implications of values for IT in organizations (Gallupe & Tan, 1999), a notable exception being Cyr, Bonanni, Bowes, and Ilsever’s (2005) study of within and between culture preferences of Web design elements, and Zahedi, van Pelt, and Srite’s (2006) study of cultural signifiers of masculinity/femininity.
in Web sites. Within-culture differences refers to examining the relationship between cultural values and beliefs, attitudes, or behaviors of individuals within a single nation-state (Berry, 1979). Examining within-culture differences is important because cultural psychologists generally agree that indicators such as citizenship or location are weak proxies for individuals’ value systems (Fiske, 2002). Research has found that variations in cultural values within nation-states influence individuals’ situation-specific behavior and beliefs (Oysterman, Coon, & Kemmelmeir, 2002). When extended to the domain of IT, this suggests that cultural values may predispose individuals to respond differently to information technologies (Karahanna, Evaristo, & Srite, 2005). Hence, this article examines the following question: Does within-culture variation influence information technology acceptance and use?

The article unfolds as follows: First, cultural values and their relationship to situation-specific traits are reviewed. The research model is then developed. The next section empirically examines the hypothesized relationships, and the article concludes with a discussion of findings, limitations, implications for research and practice, and future directions.

LITERATURE REVIEW
Culture refers to values, traits, beliefs, and behavioral patterns that may characterize a group of people. Hofstede (1991) suggests that culture reflects a composite of human nature (i.e., inherited predispositions shared by all human beings) and personality (i.e., values and more malleable traits inherited or learned by individuals). Although human nature is intransigent, values and traits are shaped by individuals’ life experiences (Hofstede, 1991). Values are acquired early in life, mainly through the family, the neighborhood, and later through school (while traits are learned later).

Within countries, individuals’ values vary with their participation in groups based on, for example, nationality, religion, and ethnicity. As a result, Straub et al. (2002) suggest that an individual’s cultural values “represent that amalgamation of cultures across boundaries (national, organizational, professional, etc.) which fuse together to create one’s overall culture. This combination is unique to each individual” (p. 4). Because values are enduring and relatively stable, they may influence the development of more malleable traits that influence individuals’ behavior. Traits (also termed practices) are learned later, through socialization at the workplace, after an individual’s values are firmly in place. In this article we look at two particular measures of cultural values (masculinity/femininity and individualism/collectivism) and how these values influence three traits (personal innovativeness with IT, computer anxiety, and computer self-efficacy). In turn we examine how these traits affect beliefs of usefulness and ease of use and, ultimately, IT usage.

Traits refer to predispositions to respond to stimuli. Individual traits can be viewed on a continuum from stable to malleable (Ghiselli, Campbell, & Zedeck, 1981). Not unlike values, stable traits influence individual behavior across situations. However, some traits are considered to be more malleable, such as computer anxiety and computer self-efficacy, as examined in this article (Chen, Gully, Whiteman, & Kilcullen, 2000). Unlike stable traits, malleable, situation-specific traits may vary with the stimuli and may be changed through interventions such as training. For example, where the general trait of anxiety exerts an influence across multiple stimuli, computer anxiety is a response linked to a specific stimulus (i.e., computers or IT) that may be reduced through training or experience. Research suggests that values may predispose individuals to express malleable, situation-specific traits (Bandura, Adams, & Beyer, 1977; Draguns, 1979; Steenkamp, Hofstede, & Wedel, 1999). Hence, while organizational interventions may evoke changes in malleable traits, cultural values may predispose individuals to express malleable traits such as computer anxiety or innovativeness over time.

Within the cross-cultural psychology literature, a growing body of research suggests that examining links between values and malleable traits should extend understanding of how to