

# Chapter 1


## A Cross–Cultural Evaluation of Axiomatic Theories and Models of Technology Acceptance: A Review of Literature

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### ABSTRACT

*In analyzing the adoption and use of information systems, theories have been crucial. The adoption of technology has been studied using several theories; however, very few have taken into account cross-cultural influences on technology acceptance. This chapter compares how technology acceptance theories have been used in various cultures to identify cultural factors that might affect how technologies are embraced by people from different cultural backgrounds. In this chapter, papers from referred journals are reviewed. The reviews revealed that TAM and UTAUT were the two most prevalent theories of technology adoption. The review also revealed that different cultural factors, including power distance, individualism vs. collectivism, aversion to uncertainty, long-term orientation, and masculinity vs. femininity, all had an impact on people's acceptance of technology, but their significance depended on the culture in question. The study suggested additional research to enhance the parsimony of modern theories on technology acceptance and incorporate cultural factors into these ideas.*

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## **INTRODUCTION**

The production of new knowledge in information system research depends on the efficient application of theory to the field. Organizations that create information systems have recognized the potential presented by globalization. Globally, discussions about the appropriateness, application, and reliability of current theories and models of technology acceptance and adoption have come to characterize the field of information systems research (Straub, Keil and Brenner, 1997; Lin, 2014). The extensive use of information technologies across cultures makes it difficult to generalize research results across cultures and the connection between the cultural acceptability of technology has remained hazy. This necessitates an investigation into the effectiveness of modern theories in understanding the adoption and application of information systems in organizations. These calls have been made as a result of research that demonstrates how these theories have varied in their predictive validity across cultures in terms of explaining the adoption and use of information technologies. According to some researchers, among them Straub et al., (1997) and Merchant (2007) the axiomatic links between the constructs vary according to the culture, indicating that diverse environmental and demographic factors have an impact on how people accept and use technology. Few scholars have made an effort to validate these ideas across cultures and situations, with particular attention to Hofstede's cultural aspects, despite the conspicuous lack of agreement on which theories best explain the acceptance or rejection of an information system.

Theory is a way to define relationships, constructions, declarations of relationships, and scope such that causal explanations, testable positions, and prescriptive statements can be made based on the theory's goals. These theoretical abstractions have significance for researchers' capacity to inform practice by illuminating axiomatic links that exist between variables of a theory, and they are not only academic. They foster a deeper comprehension of the phenomenon, assisting researchers in establishing their claims and placing their research in the proper context to justify investments in information systems investments. Globally investments in information systems development and adoption are justified by the corresponding usage among users. Park et al. (2009) claim that the underutilization of information systems in many developing nations is mostly due to the paucity of research on the user side of information system adoption. As a result, researchers have given the application of theory in information systems across broader settings greater consideration, which has led to the establishment of several IS research strands (Lim et al., 2014). According to Lim et al. (2014), theories from the fields of psychology, economics, sociology, and organizational science have been used in information system research. However, there are disagreements regarding whether information system research should continue to use theories from other fields, how these theories should be used,

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