



Chapter IX

Transfer of Information Technology to the Arab World: A Test of Cultural Influence Modeling

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ABSTRACT

The complex societal beliefs and values of the Arab world provide a rich setting to examine the hypothesized influence of culture on information technology transfer (ITT). Two research questions arise in this context: (1) Do cultural beliefs and values affect the transference of information technology in the Arab world? and (2) Does contact with technologically advanced societies impact ITT and systems outcomes? The present study addresses these research questions by conceptualizing and testing a cultural influence model of ITT. In this model, cultural beliefs and values are one major construct while a counterbalancing variable is the external influence of technologically advanced societies. These constructs along with the variable “national IT development” form the conceptual basis for the model. This study is the second part of a program of research investigating ITT. The setting of the study was Arab society, which allowed us to test our “cultural

influence” model in, perhaps, one of the more complex cultural and social systems in the world. The program of research took place in several phases. In the early phases, Arab-American businessmen and women as well as Arabs studying in American universities were studied. In the latter phases, the cross-disciplinary research team gathered primary data in the Arab cultures of Jordan, Egypt, Saudi Arabia, Lebanon, and the Sudan. Both quantitative and qualitative techniques were used to explore the phenomenon of ITT. This paper reports quantitative findings from the latter phase. Findings suggest that the model has explanatory power. Arab cultural beliefs were a very strong predictor of resistance to systems and thus ITT; technological culturization was also a factor. These results have implications for future theory-testing and for technology policy-setting by responsible Arab leaders. Additionally, there are implications for transnational firms and managers charged with introducing IT in foreign ports, subsidiaries, offices, and plants.

INTRODUCTION

“Transfer means more than just technology....All too often, new technologies fail in the marketplace because of flawed assumptions about considerations totally unrelated to technical merit.”

-Allan Kuchinsky (1996)

Organizations throughout the world experience difficulty and even failure in information technology transfer (ITT), defined as the movement of information technology from creators to users (Cunningham & Srayrah, 1994). This transference of systems, whether they are developed internally or purchased in the commercial software/hardware marketplace, is plagued with problems (Kwon & Zmud, 1987).

The ITT problem is even more acute in developing countries, such as the emerging economies in the Arab world (Antonelli, 1986; Goodman, 1991b; Knight, 1993; La Rovere & Goodman, 1992). Although developing countries are eager to adopt new technologies, the process of adoption has been slow and the current utilization of IT is far below that achieved in industrialized countries (Antonelli, 1986). This disparity in IT use between industrialized and developing countries can be explained in part by the high cost of building and implementing IT, but this explanation is not entirely satisfactory. Substantial anecdotal and descriptive evidence exists for failure in cases where financial hurdles have been overcome (Mahmood, Gemoets, & Gosler, 1995). While finances were not a problem for the affluent countries of Saudi Arabia and Kuwait, they have historically used far less than their available computing capacity (Atiyyah, 1989; Ibrahim, 1985; Yavas, Luqmani, & Quraeshi, 1992). With some notable exceptions (Al-Shanbari & Meadows, 1995; Kamel, 1995; Siddiqui, 1992), sporadic implementation and use are endemic throughout the Arab world (Cunningham & Srayrah, 1994; El-Sayed Noor, 1981; Goodman & Green, 1992; Odedra, Lawrie, Bennett, & Goodman, 1993).

Why is ITT so problematic in developing countries like those in the Arab world? Anthropological studies suggest that much of the technology designed and produced in developed countries is ethnocentric, that is, culturally-biased in favor of their own social and cultural systems. Consequently, developing countries encounter cultural and social obstacles when attempting to transfer technology, created abroad, into practice at home (Yavas et al., 1992).

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