

Female Perceptions of the Information Technology Culture

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INTRODUCTION

In the organizational sciences literature, one of the important social forces that affect the productivity, adjustment, attitudes, and retention of employees is culture. Culture can be defined as the shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes, and norms that people have in common with others in a community (Hall, 1959, 1976; Hofstede, 1997; Trice, 1993). Cultures originate as individuals interact with one another. Belonging to a culture involves believing what others believe and doing as they do (Trice & Beyer, 1993). The most obvious manifestations of culture are common language and common ways of thinking (Schein, 1999).

These common ways of thinking are also evident within organizations as employees share basic assumptions on how to do things and solve problems in a way that is considered valid by organization members and, therefore can be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 1992).

Because culture within organizations is multifaceted, it includes both: the overall culture of the organization as well as subcultures shaped by the specific kind of work that people do in the organization. In contrast to organizational cultures, occupational subcultures arise from the shared educational, personal, and work experiences of individuals who pursue the same kind of work or occupation (Trice, 1993; Trice & Beyer, 1993).

The purpose of this chapter is to present a comprehensive summary of previous studies relat-

ing to the concept of occupational subculture of information technologists and the perceptions and difficulties that female students illustrate during their first approaches to the IT occupation. We believe that understanding the difficulties that women face to accommodate to the IT culture can better help academic institutions and industry practitioners develop customized strategies for retention and recruitment of women in the IT field.

BACKGROUND

Occupational cultures have the same characteristics as any culture with a different degree of distinctiveness based on the occupation. Studying cultural characteristics allows managers and academics to develop better human resource strategies that will affect favorable productivity, adjustment, attitudes, and retention of employees in organizations. As stated by Trice (1993) occupational subcultures consist of distinctive clusters of ideologies, beliefs, cultural forms, and other practices that grow uniquely in the context of a particular occupation. Table 1 summarizes the characteristics of an occupational culture based on Trice's theory (Trice, 1993).

THE OCCUPATIONAL CULTURE OF INFORMATION TECHNOLOGISTS

The role of information technology (IT) workers is critical in the development, acquisition, management, use, support, and maintenance of information

Table 1. Summary of the characteristics of an occupational culture

Characteristic	Description
Collective	Cultures are collective, they originate as individuals interact with one another. Cultures are repositories of what their members agree about believing and doing. Belonging to a culture involves believing what others believe and doing as they do.
Emotionally charged	Substance and forms are infused with irrational feelings and elaborate rationales for them. These emotions are propagated through socially accepted channels.
Historically based	Cultures emerge over time but are based on a unique history. The interaction of a particular group in a unique set of physical, social, political, and economic circumstances develops ideologies and forms that are later shared with other individuals who practice those ideologies over time.
Inherently symbolic	Cultures emphasize the expressive side of human behavior. Symbols are the basic unit of cultural expression. Symbols are present everywhere in social life. They can be practically any object, word, act, emblem, dress, etiquette, etc.
Dynamic	Cultures create continuity and persist across generations of members but they are not static. Cultures change constantly. Some of the reasons are the imperfect communication and understanding over time, the individual influences of new members, unconscious transmission, multiple meanings of the symbols of the culture, and the influence from outside.
Inherently fuzzy	Cultures combine contradictions, ambiguities, paradoxes, and confusion. They are also characterized by "enormous multiplicity."
Encourage ethnocentrism	A collectivity may come to be very emotionally attached to a set of ideologies. As a consequence, its culture will be strengthened and the collectivity will come to distrust, fear, and dislike groups with other sets of beliefs. The more emotionally charged these ideas are, the more likely adherents are to be intolerant of those with divergent ideas.
Dysfunctional as well as functional	Strongly held ideologies add to the cohesion among members of an occupation, but at the same time, they make for a rigidity and bitterness toward outside groups, often blocking needed cooperation.
Structure social relations	Cultures, guided by their ideologies, tend to produce mechanisms that arrange the relationship between their members, namely the structure of social relations.

Source: Trice, 1993

technologies and systems. This group of workers with IT skills and knowledge base continually acquired from a variety of formal and informal sources in several specialties, compromise an occupation that crosses and transcends organizations and has its own characteristics. In the 1990s, Duliba and Baroudi (1991) conducted an empirical study in order to identify if the occupational culture of IT workers exists or not. In their study, they concluded that IT personnel indeed form an occupational culture (Duliba & Baroudi, 1991) but back then, this culture did not manifest strong values and cultural forms and instead IT workers formed a weak occupational culture. Because the IT occupation has developed and grown more in the last decade socially and within organizations, recent studies can now better identify the ideologies, beliefs, cultural forms, and other practices that define this community. In other words, we can now identify the features of the occupational culture of information technology workers.

Having that purpose in mind, researchers have recently conducted empirical studies looking for the ideologies, beliefs, cultural forms, and other prac-

tices that IT workers manifest (Gerulat, 2002; Guzman & Stanton, 2004; Guzman et al., 2004). Table 2 summarizes the features of the occupational culture of IT workers.

Individuals who are part of the occupation first come into it with values derived from family, school, and community. As they evolve in their occupational communities, individuals go through a process of adaptation where they manifest positive and negative reactions of adjustment to the culture. We were interested in those reactions, particularly the reactions of female individuals who are currently going through a process of occupational socialization in the information technology field. Occupational socialization is the process by which individuals acquire, learn, and adopt the ideologies, beliefs, cultural forms, and practices of an occupational culture. Because the process of occupational socialization begins while individuals are pursuing an academic major, the participants of this study were students of IT related majors who are learning and adopting the ideologies, beliefs, cultural forms, and practices of the IT occupational culture.

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