Chapter 4

Incidence of Organizational Culture on Management Effectiveness of Information Technology Projects

Dora Alba Ariza

https://orcid.org/0000-0002-9057-474X

Universidad EAN, Colombia

ABSTRACT

This chapter describes the findings of a research aimed to determine the cultural characteristics which have incidence on the management effectiveness of IT projects. A quantitative study was carried out. Confirmatory factor analysis (CFA) and structural equation modelling (SEM) were applied. A random sample of 139 respondents conformed by leaders and team members who developed IT projects in private companies from different economic sectors located in Bogotá, Colombia was used. The evidence shows that the adaptation to solve problems has incidence in the management effectiveness of IT projects and the compliance of stakeholder expectations can be predicted from the alignment level of the projects with the strategy and the consideration of their needs and opinions. The study extends the theory in project management and information technology. The results can guide the efforts of project offices to identify cultural characteristics which can be intervened to enhance the project success.

INTRODUCTION

The organizational culture determines the attitudes of people and their performance in the daily tasks, as well as in the interaction among the areas of the organization (Schein, 2009). Its members learn the behaviors which are accepted and valued by the executive levels and collectively assume those which are considered appropriate. In the same way, these attitudes and behaviors are reflected in the project execution. It has been found that a positive disposition of the organization towards project management, expressed through the support of the executive level, is a cultural aspect that favors its results (Kendra

DOI: 10.4018/978-1-7998-1934-9.ch004
and Taplin, 2004). However, it is necessary to carry out additional research to identify other characteristics of the organizational culture which may facilitate the development of projects (Morrison, Brown and Smit, 2008).

IT is changing the way people interact in the social context, how they develop their work activities and in general, how they act on a day-to-day basis, through the information that technological solutions provide and the possibilities of creation that they are made available to users. The products which are developed with IT projects evolve to the extent that people have new needs. This situation leads this type of projects face a constant degree of uncertainty and changes during its life cycle (Tiwana and Keil, 2009; Standish Group International, 2013).

On the other hand, IT projects require integrating knowledge and skills in people of diverse disciplines, increasing their complexity. In this process of interaction among the stakeholders, several flaws have been detected which are typically presented in IT projects, such as the definition of unrealistic expectations, the difficulty in solving problems at the individual or team level and the lack of involvement of end users (Nelson, 2007). However, these factors leave the context of the individual project and they are a manifestation of cultural characteristics of the organization in which the projects are developed.

The expectations of customers and users determine the functionalities of the products and services generated by IT projects (Tiwana and Keil, 2009). But also, their expectations determine the way in which the effectiveness of their management is measured (Heerkens, 2001; Shenhar, Dvir, Levy and Maltz, 2001). Traditionally, IT projects are valued in terms of compliance with scope, time, cost, requirements and quality (SGI, 2014). In Colombia, according to the perception of 355 IT professionals, while 50% of the participants indicated that the projects accomplish the assigned budget, 35% considered that the projects comply the schedule (Asociación Colombiana de Ingenieros de Sistemas ACIS, 2014). However, this measurement needs to be complemented with other criteria which include aspects related to stakeholders such as customers or users, the work team and contractors.

Particularly in IT projects it has been found that the commitment of the organization to provide time and resources, the level of formalization of project management practices and cooperation among areas are related to compliance with the scope, time and cost (Aladwani, 2002; Milosevic and Patanakul, 2005; Thamhain, 2004). Many of the studies about IT projects carried out so far have identified some cultural factors which affect the project success without having an integrated model of organizational culture. For the reasons which were stated previously, the following research question is formulated:

What are the characteristics of organizational culture that have incidence on the management effectiveness of IT projects?

Therefore, the present research is aimed to establish the incidence of the organizational culture on the management effectiveness of IT projects. The structure of this chapter is as follows. In section 2, 3 and 4, the review of literature is presented; in section 5, the elements of the methodology are detailed including sample and techniques used for the analysis; in section 6, the findings obtained are showed followed by the conclusions.

ORGANIZATIONAL CULTURE

Organizational culture has been studied by different disciplines like anthropology, sociology and psychology. From an anthropological view, the organizational culture is considered a factor of contingency which affects the general functioning of the organization (Allaire and Firsroto, 1984). From a sociologi-