

# Chapter XV

## Quality Standardization Patterns in ICT Offshore

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### ABSTRACT

*In recent years, the ICT branch has experienced new internationalization impulses through the improvement of offshore practices. Particularly the development of modularization and standardization of some production processes have crucially contributed to enabling offshoring in globalized areas of ICT. Competencies as well as innovation sources have increasingly fragmented; resting upon cooperation and trust principles. Quality standards play a crucial role to satisfy and optimize these coordination and regulation needs so to warrant quality outcomes. In this chapter, I will give an overview of the development of quality standards related to offshore projects, focusing particularly on recent practices in Europe. To illustrate the importance of quality standards and quality management for ICT off- and nearshore projects, and moreover for the internationalization of the ICT branch, I present some preliminary results of my work in progress. From the perspective of project managers in large ICT firms, quality standards play a very important role as the internal controlling instrument of working and communication processes; as well as an external mechanism beyond the ICT network in order to get market advantages.*

### INTRODUCTION

During the late 1990s and particularly in 2000, the ICT sector has shown an enormous expansion, especially influenced by the development of the Internet, extended application areas and the former favorable economic situation. The commercialization and expansion of the Internet as a working basis, particularly in the 1990s, played in this phase a crucial role to begin enabling compatibilities in

cross-national working practices; as well as creating a basis to build common knowledge exchange arenas that are fundamental for the further internationalization of the ICT branch. Thus, the use of the internet as an exchange working platform represented one of the first enabling steps toward the organization of work in global contexts in the sector, overcoming time and space barriers in working processes (Castells, 2001) (Editor note: Castells is not listed in the references section.)

Whereas organization control during the early 1990s concentrated on core firms that operated with local outsourcing companies to compete in an increasingly dynamic environment, involving new actors and customers around the world. In the late 1990s, the new diffusion and communication basis, supported by the Internet, contributed to the development of a new organizational paradigm known as network organization. Competencies, as well as innovation sources, have increasingly fragmented; resting upon cooperation and trust principles. Nonetheless, networks need to coordinate their operation activities and their innovation expectancies to guarantee the quality of their working processes, their staff and their customer-focused outcomes. And moreover, they are often bound to national and international regulations of working and production practices.

Network organizations must find a consensus regarding customer groups, innovation, quality and performance goals. Once these goals, as well as coordinative and regulative standards, are integrated within quality management systems, they serve as a legitimate basis for network performance.

Particularly in recent years, the ICT branch has experienced new internationalization impulses through the improvement of task delegation to foreign organizations, or in other words, offshore practices. The development of modularization and standardization of these production processes have crucially contributed to enabling offshoring in globalized areas of ICT.

Offshore tasks and production segments in the ICT sector are part of the internationalization of the sector and must be understood in the context of the globalization of the whole economy (Ruiz Ben & Wieandt, 2006). In the last few years, offshoring has expanded in the ICT sector due to the maturity of the branch in terms of standardization and consolidation of certain segments of the sector, mostly within the production part and related to the development of standard products. Some authors argue that offshoring constitutes a “prelude to software automation and mechanization,” taking for example the automation of labor-intensive tasks in data centers, software customization, translation, website hosting and reuse of code that is currently

taking place in software service companies (Carmel & Tjia, 2005, p. 7). Although, this argument is still far away from the present situation. Particularly important in the adoption of international quality standards by the current impulse towards internationalization and the increasing global competition in the ICT sector. Thus, even if resistance towards the adoption of international quality standards exists in ICT organizations, due to the additional work it represents for the employees by way of documentation pressure, particularly large ICT organizations adopt them in order to accomplish the perceived expectations in the sector (Boiral, 2006). Another way to accomplish such market expectations is for the organization to develop particular quality management systems on the basis of internationally recognized quality standards (Ruiz Ben, 2007). However, the speed of innovation in the ICT sector is often too fast and the documentation of software development process needed in quality management systems is often neglected due to time pressure or lack of habitualization among employees (Ruiz Ben, 2005). In the context of the internationalization of the ICT sector, the adoption and adaptation of quality standards and documentation practices are not yet very well researched. Questions such as the existence of quality management systems in organizations or of the dynamics brought about in organizations when new quality standards are implemented to address qualification development, task definition and performance in international settings are still unexplored. In this chapter, I will give an overview of the development of quality standards and management mechanisms related to offshore projects, focusing particularly on recent practices in Europe and especially in the German ICT branch. I will present definitions of offshoring in ICT, explanations about quality standards in this field and discuss the institutions involved in the development of international standards. Moreover, I will present some of the results of my research regarding the transformation of tasks and qualifications in the internationalization process of the ICT branch, focusing on the importance of quality standards and management systems.

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