



## **Chapter XIX**

# **Information Technology Project Management to Achieve Efficiency in Brazilian Companies**

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## **ABSTRACT**

*This chapter focuses on applying the best practices in Information Technology (IT) project management in Brazil. The theoretical models adopted to discuss this issue are the Capability Maturity Model - CMM (Humphrey, 1989; Paulk et al., 1995), Project Management Maturity Model - PMMM (Kerzner, 2000 and 2001); the Project Management Body of Knowledge - PMBoK (PMI, 2000), and Quality Systems for software - ISO9000-3 (2001) and ISO 12207 (1995).*

*Several problems have been discussed regarding the efficiency of IT projects. Evaluation of efficiency is a controversial issue, and meeting project efficiency goals involves balancing scope expectations and the available resources.*

*This chapter presents IT project cases in Brazilian companies and a comparative analysis of their IT projects management models. The study is based on multiple cases: financial services, telecommunications and building materials companies. Interviews with the main actors from different levels of the organisational hierarchy have been done.*

## INTRODUCTION

Information Technology (IT) has an important role in the strategic function of the leading companies in the competitive markets (Porter, 2001). On the other hand, there is still an important discussion about the difficulties of finding evidence of returns over the investments in IT, called the “productivity paradox,” (Willcocks & Lester, 1997; Brynjolfsson, 1993; Strassman, 1990).

The evaluation of project efficiency is a rather controversial issue. The uncertainty and the complexity inherent to IT projects pose a hindrance to the evaluation of their efficiency, both regarding cost and time frames, and in terms of quality. Meeting project efficiency goals involves balancing scope expectations and the available resources (Rabechini Jr. & Carvalho, 1999). Thus, IT project management addresses the full range of concepts, tools and techniques to improve project performance and organizational effectiveness and efficiency (Carvalho et al., 2002; Laurindo et al., 2002).

This chapter presents the results of studying the adoption of efficiency models in Information Technology area in the selected Brazilian companies. A comparative analysis among project management models adopted is done. The study is based on multiple cases, financial, telecommunications and building materials companies.

## METHODOLOGICAL ASPECTS

In order to investigate the application of efficiency models to Information Technology area of Brazilian companies, the adopted methodological approach was multiple cases (Yin, 1991; Claver et al., 2000). The cases selection criteria was the following: the role that IT plays in the company; IT management model and organizational structure; local dispersion; and IT application complexity. Based on these criteria, three cases were selected: a financial company, a telecommunication and a building materials company. Interviews were performed with executives from the IT area and others from different hierarchical levels and areas. The characteristics of the cases analyzed are as follows:

- Case “A” is a Brazilian manufacturing company that belongs to the agribusiness and building materials industries; in 2000 it had revenue of US\$ 400 millions and hired 6,000 employees, but our focus was restricted to a business unit hereafter called AN1; that achieved 60% of company total revenue.
- Case “B” is a Brazilian multiple bank with revenue of US\$4,500 millions and 17,000 employees in 2000.
- Case “C” is a global manufacturing company that belongs to the electronics industry which, in 2000, achieved revenue of US\$2,000 million from its Latin American branch with 2,700 employees.

## EFFICIENCY MODELS IN IT FIELD

In spite of different approaches regarding the best practices in the IT area, there is a general consensus about the importance of three, widely used efficiency models: the Capability Maturity Model - CMM (Humphrey, 1989; Paulk et al, 1995), the Project Management Maturity Model – PMMM (Kerzner, 2000, 2001); the Project Management Body of Knowledge - PMBoK (PMI, 2000), and Quality Systems for software - ISO9000-3 (2001) and

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