16.1 INTRODUCTION

Surveys covering over 8000 projects indicate that the major sources of software project failure lie less with shortfalls in formal methods skills and more with shortfalls in skills to deal with stakeholder value propositions (Johnson, 1999). Five of the top six reasons of failure do not deal with programming languages, development environment or hardware choices, but are related to communications among developers and customers (Boehm, 2002). Moreover, the updated Standish Group study, conducted in 2000, identified 10 software success factors. The second factor is user involvement and the third is experienced project manager. This means that most projects fail because of people and project management issues rather than technical issues (Thomsett, 1993). Several recent studies (Philips, 1998) indicate that project managers are learning how to become more successful at IT project management. To improve the software success, more highly skilled project managers are using improved management processes.

The aim of this chapter is the investigation of the main problems in software development and the adopted solutions from the point of view of managers. We have performed a pre-experimental design based on 21 interviews with software managers. We adopt the Petroski’s views (Petroski, 1982): analyze the causes of failures can do more to advance knowledge than all the successes in the word.

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Our goal is to find out differences and analogies in software management techniques derived by the adoption of AMs and their effectiveness in the improvement of the software production.

16.2 THE STRUCTURE OF THE INVESTIGATION

16.2.1 Goals, Questions and Metrics of the Research

We want to determine how project management is approach dealing both with of people (developers and clients) and with the process (planning and organization).

We use the well-known GQM model by Basili (1992) to determine the overall structure of the study. Here below there are the details. Goals: Monitoring what a Project Manager considers important to develop better processes, organize teams more effectively and deal with problems faster.

Perspectives:

- Main problems in a software development process and main solutions adopted for improving the situation
- Evaluate the software process planning
- Estimate the relationship with the customer
- Assess the real knowledge and use of AMs focusing on their benefits and disadvantages

Context:

- Managers in local and international software companies

Questions:

- Which is the biggest problem in software development? How have you tried to address it?
- How much effective is planning and organizing the software process?
- How much effective is the relationship with the customer to improve the final satisfaction?
- How much effective is the use of AMs in addressing main software problems?
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