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### **QUALITY MANAGEMENT**

IN

## 6139

### **COMPUTING SERVICES**

## A STUDY TO DETERMINE THE CURRENT STATE OF QUALITY MANAGEMENT PRACTICES

OF

# COMPUTING SERVICES IN NEW ZEALAND'S INDUSTRIES

A thesis presented in partial fulfilment of the requirements for the degree of Master of Technology in Quality Management

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#### **ABSTRACT**

This thesis reports the results of an empirical investigation into the general perception of quality management practices, the direction the New Zealand industry is taking in quality management and the current status of quality management practices in computing services of organisations and companies.

Computing services is a complex and multi-disciplinary field. It encompasses a broad range of technologies and activities and it involves other disciplines or skills to deliver those services. The range of technologies, activities and disciplines involved in computing services depend largely on the level of complexity and size of the computer systems implemented and of the complexity of the company. The computing services field also involves the understanding of other fields that utilise the computing services.

Adopting a quality management approach for the provision of computing services represents a different from but complementary approach to the traditional information systems engineering methods employed to achieve quality. It ensures that the processes used in the development and management of computing services are designed with the customers' requirements in mind and that the outputs of Information systems and information technologies (IS/IT) are serving the needs of other organisational functions.

It is in this context that the study focused on the use of quality management in the development and management of computing services. Quality management provides a framework (for all those methods and procedures) and the systematic approach for computing services to make IS/IT development more successful. It also incorporates the computing service providers into the overall quality system of a company.

The study involved a national survey. A questionnaire was mailed to 411 companies, 140 of which returned useable questionnaires, giving a 34% response rate. Descriptive statistics, cross-tabulation and chi-square significance tests were used to analyse the research survey data. The results of the study indicated that a large percentage of

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