

## CHAPTER 1

### THE PROBLEM

#### 1.1 Introduction

In recent times quality has come under the spotlight in South Africa. This is due to various factors including increased globalisation, which opened world markets to South African producers. It also meant that foreign producers started competing for local market share. In order to get products into the foreign markets, products had to comply to standards like ISO9000. In South Africa, products had to be of an acceptable quality while the price had to be competitive in relation to those of foreign products, which often came from established world-wide brand names.

At the same time foreign markets opened for South African construction companies, especially in Africa and the Middle East. The South African construction companies were eager to generate foreign income following the disastrous effects of the sharp interest rate hikes of 1998 on the construction industry, and foreign income were to sustain turnover should the same happen again.

Although the construction industry is not an exporter of completed products, there is an export of expertise and abilities when a South African construction company ventures onto foreign soil.

The need for producing quality buildings in South Africa increased as buildings built locally could be used as examples of what a company could produce and therefore impact on the decision to award a contract to a specific company.

The economic downswing in the South African construction sector in 1998 was followed by negative growth figures in the following years which subsequently caused an increase in competition between local companies in the construction sector. The increased competition forced margins down and this, coupled with decreasing contract periods, caused quality to suffer. It is a well-known fact that if either time or cost comes under pressure, quality is usually the first constraints of a contract to be sacrificed.

The general decrease in quality standards and increased competition highlighted the need for companies who wanted to survive, to look at ways of ensuring a good name with clients which could lead to follow-on work. The expected economic upswing in the construction sector would further find companies who can produce quality buildings at an immediate advantage over their rivals. This is where Quality Management came into

the picture. Although not a new theme, it is one that has not received the proper attention in the construction industry.

This study endeavours to shed some light on the efforts necessary to install and maintain a quality system, and maybe more importantly a quality-culture, for producing quality buildings in a South African construction company.

## **1.2 The problem**

“The establishment of critical success factors required for the successful implementation and maintenance of a Total Quality Management system for the South-African Construction Company in the building sector”

## **1.3 The sub-problems**

Sub-problem 1      “The definition of the critical success factors required for the successful implementation of a Total Quality Management system”  
  
(What are the critical success factors required for the successful implementation of a Total Quality Management system?)

Sub-problem 2      “The definition of the critical success factors required for the successful maintenance of a Total Quality Management system”  
  
(What are the critical success factors required for the successful maintenance of a Total Quality Management system?)

#### **1.4    The hypothesis**

Hypothesis 1      “The most important factors that should be present for the successful implementation of a Total Quality Management system is a systematic approach with training and empowering of employees as a major focus”

Hypothesis 2      “Factors critical for the successful maintenance of a Total Quality Management system are persistent senior management involvement, suitable continuous training of employees and effective motivation of employees resulting in a quality-culture”

## **1.5 Delimitations**

The study will focus on the implementation and maintenance of a TQM system for construction companies in the building sector of the construction industries. The building sector should be understood as the part concerned with the construction of buildings according to normal methods i.e. not civil engineering projects or projects requiring extremely advanced construction techniques.

## **1.6 Definition of terms**

Patent defects as used in this treatise means defects that should be exposed by a reasonable inspection.

Latent defects as used means defects that would not have been identified during a reasonable inspection

Critical success factors are those factors that need to be present for the successful implementation or maintenance of a system.

## **1.7 Assumptions**

Due to the literary nature of this study, no assumptions had to be made.

## **1.8 Importance of the study**

The importance of this study stems from the increased competition in the construction industry forcing construction companies to focus more attention on ways of improving their market image, market share and ultimately their profits. With an increase of 16.1 percent in building costs, as measured by the Bureau for Economic Research at the University of Stellenbosch, in the third quarter of 2002, as compared with the same period in 2001, and the high level of competition in tendering prevalent in the industry (Business Report, “Real growth in construction slowing – bureau”, 11 October 2002, Roy Cokayne), construction companies will need to show a pro-active approach to bettering quality, resulting in increased profitability.

## **1.9 Research methodology**

The study will be based mainly on research into literature on the subject of quality management implementation and maintenance as well as limited interviews.