

## Chapter 4

# Research Methodology, Questionnaire, Sampling, Data Analysis Techniques

### ABSTRACT

*The previous chapter developed the research model and hypotheses. This chapter now explains the methodology. It gives more information on the research variables, including the independent, dependent, and moderator variables, and discusses the research sample size and sampling frame, together with the justification for choice of sampling technique. It describes the pilot study and reports on the reliability of the scales chosen. It explains the data collection procedure for the main study, including activities related to the administration of the research questionnaire and communication with the target companies, and provides details of the number of responses received from each company and the response rate. It also covers ethical considerations, including the actions taken to maintain the respondents' anonymity and protect data from unauthorized use.*

## **RESEARCH DESIGN**

This research aims to answer two questions about the relationship of organizational culture type with components of organizational excellence, and to discover how ICT use moderates these relationships, via 25 hypotheses. The logical nature of this study required the use of a quantitative applied research approach, because it focuses on analyzing and evaluating several variables, as well as exploring their relationships. The quantitative approach allows comparisons between the cultures of several organizations (Cameron & Quinn, 2005), using a numerical analysis to provide an in-depth understanding of the information, theories, and concepts related to the research questions and hypotheses. Responses were coded to facilitate the use of statistical methods of analysis to compare different variables related to organizational culture and business excellence. Quantitative methods also have demonstrated validity and reliability, unlike qualitative methods, which focus on developing themes and interpreting data (Bhattacharjee, 2012).

### **Independent Variables**

The four organizational culture types were the independent variables in this research. This approach enabled more focus on each culture type, to generate detailed and insightful conclusions. Figure 1 shows the independent variables in this study.

### **Dependent Variables**

The EFQM organizational excellence results criteria were used as dependent variables (see Figure 2).

## **POPULATION AND SAMPLE**

The sample population is companies in the UAE who have demonstrated a high level of organizational excellence. The parameter used to identify these companies was excellence awards, and particularly, previous winners. There are several quality and business excellence awards in the UAE. Some accept applications only from the government or private sector, and a few are open

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