

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Hypotheses

This chapter describes the details of research methodology used in this study, which fundamentally was a research survey to determine whether the TQM implementation go parallel with productivity enhancement or it go diversely. This was intended to discern if possible the implementation of TQM would enhance the productivity achievement. With this information it was planned to improve further the TQM implementation process in order to enable for those manufacturing sectors to realize its corporate ambitions in achieving overall superior performance standards.

This chapter provides a description of the design of the research instruments, the sampling procedure, data collection procedure, and the statistical technique used in the analysis of data.

3.2 Research Instruments

This study utilized the survey instrument, which consisted of a six-page questionnaire. The questionnaire was divided into three sections. Section I of the questionnaire measured the company background of the respondents' firm. Among the questions asked were numbers of years in implementation, form of investment, organization's product, numbers of employees, organization's turnover and organization's market. The company profile variables were measured using the close-end multiple choice-format.

Section II of the questionnaire consisted of a number of close-ended questions inquiring about the TQM, ISO9000 or the equivalent Quality improvement program implementation. In Section III, a number of questions were asked. The respondents were asked the consequences of the Quality improvement program that effect the enhancement of productivity and effect on the variables of productivity. Three alternatives were given: one, two and three. The respondents were required to tick one response only.

All the participating respondents were informed of the purpose of this study. They were also assured of the confidentiality of their answers.

3.3 Sampling and Data Collection Procedure

The respondents chosen were those manufacturing firms throughout the peninsular Malaysia that has acquired ISO9000 certification or the equivalent Quality standard. Therefore, the sample population represented those firms that directly involved with TQM or the related from the manufacturing sectors. Standard Institute of Research Industries Malaysia (SIRIM) and National Productivity council (NPC) assisted in the distribution and administration of the questionnaires to the respective firms.

The questionnaire forms were distributed through friends working in various organizations, respondents' E-mail address and posted out to them. They were briefed beforehand about the requirements needed to be adhered to when conducting the survey. Self-administered methods questionnaires had been employed.

3.4 Data Analysis Techniques

The Statistical Package for Social Science (SPSS) software program was used to analyze data obtained from the survey. The raw data were edited by means of the frequency distribution and percentage distribution to determine the general characteristics of the respondents' company profiles. Reliability analyses were performed on the chosen scales (variables) to determine if they form an additive scale. In other words, it provides a means to simplify the analysis and reporting of survey data by showing that a group of variables, possibly all form a scale that is reliable measure of a concept. The relationship of one variable to another was also measured by correlation analysis. This was done to determine the association between each pair of variables, whether they were positively or negatively related.