

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the design and the methodology used in this research. The following aspects are described in detail in this chapter:

1. Sources of research data
2. Research design
3. Data collection
4. Research instrument
5. Pre-testing
6. Data screening and checking
7. Data analysis
8. Conclusion

In general, this research attempts to examine the effects of: i) awareness of export assistance programmes among SMEs in Malaysia; ii) satisfaction among SMEs with the programmes provided; iii) benefit of export assistance programmes, with the organizations' performance. The research used the survey approach consisting of multiple-choice questionnaires requiring respondents to give fixed responses to the statements or questions asked. This will accomplish the objectives of the research and answer the issues raised and problem statements put forward through careful analysis.

3.1 Sources of Research Data

The sources of research data include a combination of both primary and secondary data gathered as follows:

3.1.1 Primary Data

Primary data refers to the data collected directly from the original sources for a specific purpose. The primary data for this research was gathered through the distribution of questionnaires to selected respondents. The questionnaire was self-developed to achieve the desired objectives.

3.1.2 Secondary Data

Secondary data is somewhat historical, already assembled and does not require direct access to the respondents. Among the sources for this data were journals and articles from on-line databases such as Emerald, Science Direct and Proquest, and other related periodicals from libraries and resource centres.

3.2 Research Design

Research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information (Zikmund, 2003:65). The objective is to ensure that information gathered is appropriate for solving the problem (Zikmund, 2003). According to Cooper and Emory (1995), there are three purposes for having a research design. First, it provides a detailed plan to choose sources and

types of information that can be used to address the primary research problem. Second, research design explains the relationship between the variables investigated and, finally, it is used to discuss and interpret the development of propositions and hypotheses and the data analysis.

Initially, literature for the constructs of the current study: awareness, satisfaction, benefit and performance, were reviewed to obtain a detailed understanding on these matters. From the literature review, the conceptual framework was developed and then the propositions and hypotheses. Subsequently, preliminary design of the questionnaire was structured, indicating that this study is based on a cross-sectional format intended to provide conclusive findings that will help managers and policy makers to make better decisions to improve the performance of their organisations. Then, the questionnaire was forwarded to the respondents and the responses were analysed and interpreted. Finally, the data was analysed and results were reported.

3.3 Data Collection

The data gathered was mainly from the survey. The process was carried out in several stages including the development of the questionnaire, identification of areas and location for distribution of the questionnaires in the Klang Valley, distribution of questionnaires to selected respondents, randomly reminding respondents of questionnaire deadline, gathering of questionnaire and analyzing of data. The questions and statements were directed to respondents personally to elicit the information such as awareness, satisfaction and benefit of export assistance programmes provided by the government agencies.

The sample consisted of SMEs in any business category, including manufacturing, construction, services and agriculture. These organisations were randomly selected, as long as they fulfilled the criteria and the definition of SMEs in the Malaysian environment. Based on the SME directory available on the Internet, there are 16,349 SMEs from all business categories registered with this directory. Although the entire population of SMEs is not registered in this directory, the directory is seen as a reliable and updated source of reference. For the purpose of current study, there will be no narrowing down the population to a specific industry. A sample of 500 organisations fitting the criteria mentioned was chosen. The mailing list provided by the directories has complete information on the organisations across Malaysia including addresses, contact numbers, types of business activities, number of employees, years of establishment and so forth. The sample of 500 organisations was taken with the anticipation that it provides useable responses in the range of approximately 10 percent, or approximately 50 responses.

The data collection for this study was primarily through the structured questionnaire. The questionnaire, together with a cover letter, was mailed to 500 organizations. It was bound in booklet form comprising seven double sided pages, with the first page as the cover letter. The cover letter described the nature of the research, introduced the researcher and the supervisor as well as a request for the full cooperation from the organisations. Moreover, it specified the objectives of the study. Respondents were also informed about the confidentiality of the study and reassured that only the researcher and the supervisor would have access to the information given and that all reports of the study would only be presented in aggregate.

Before the questionnaires were posted, the organisations were first contacted to enquire as to their willingness to participate. To facilitate the response to the survey, stamped return envelopes were included with the questionnaires sent to the 500 organisations. The questionnaires were posted to the organizations starting end of July 2009. The respondents were given 14 days to return the questionnaire. A follow up call and reminder letter ensued in cases in which there was no response after a period of two weeks. Generally, by the end of August 2009, the data collection process was stopped due to time constraints. A sample of the survey questionnaire is attached in the appendix. Out of 500 questionnaires distributed, 58 were received within a period of three weeks. Only 54 of the respondents completed the questionnaire. Four of the returned responses were grossly incomplete, consequently, the data from these responses was excluded from the analysis.

The population for the current study was all SMEs in Malaysia. However due to time and resource constraints, the sampling frame was narrowed down to SMEs in the Klang Valley area. The Klang Valley area was chosen, as it is the centre of commercial and business activities in Malaysia, with a population of about two million residents. It represents the highest income per capita state in the country. Furthermore, many SMEs locate their activities in this area.

In terms of the sampling method, due to the time and resource constraints, non-probability and convenience sampling methods were used for the current research. In this design, the elements in the population have no probabilities attached to their being chosen as sample subjects. This type of method allows the researcher to obtain

the preliminary information about the subject matters in a quick and inexpensive way (Sekaran, 2000).

3.4 Research Instrument

A structured set of questions was used to gather the relevant data for this study. This was used to direct the respondents into the relevant variables that will be tested in the study. This saves time and effort as well as preventing bias while asking questions through personal interviews. From the literature review, questions for the constructs were developed in order to evaluate the constructs of this study. These include awareness of export assistance programmes, satisfaction with the programmes, benefits of the programmes and performance of the organizations.

3.4.1 Questionnaire Structure and Sequencing

The questionnaire was divided into six sections with each section separated by a specific heading. Instructions were clearly and precisely stated after each heading for the convenience of the respondents. Section A consisted of nine demographic questions. This section is very important in identifying the profile of the organizations. Section B consisted of seven questions on the awareness among the SMEs of the export assistance programmes provided by the government agencies. Section C, which comprised five items, discussed the satisfaction of the SMEs with the export assistance programmes offered by the agencies. Nine questions on the benefit of the export assistance programmes were asked in section D. This section examined the benefits gained by the organizations from the programmes provided.

Finally, in Section E, six questions were asked to measure the performance of the organizations. In some cases, the items were represented in reverse scores to check the alertness of the respondents.

3.4.2 Scaling of Measurement

All statements and questions in sections B, C and D were developed using a five-point Likert scale. For the purpose of data interpretation, the descriptive phrases for the main side of the five-point scale are (1) "strongly disagree", (2) "disagree", (3) "neutral", (4) "agree", and (5) "strongly agree". In Section E, the performance of the organizations were developed using seven options, i.e., "decrease more than 20%", "decrease 11-20%", "decrease 1-10%", "no change", "increase 1-10%", "increase 11-20%", and "increase more than 20%". Finally, for the demographic variables, a categorical scale was used. This scale is able to qualitatively distinguish between groups by categorizing them, through which respondents can be assigned into certain mutually exclusive groups.

3.5 Pre Testing

Before the distribution of the questionnaire, pre-testing was conducted. The purpose of pre-testing is to extract feedback concerning understanding, phrasing and design of the questionnaire. In fact, measurement errors often result from the way questions are asked and from the sequence of the questionnaire, which might impede respondents from answering the survey questions correctly (Dillman, 1991). In other words, a pre test is conducted for the purpose of:

- i. Checking for face and content validity of the questionnaire,
- ii. Ensuring that the questions are understood and correctly interpreted,
- iii. Checking for comprehensiveness, syntax errors and the general layout format.

In the pre-test process, the questionnaire was first distributed to colleagues in the Faculty of Business and Accountancy, University of Malaya to comment on the layout, arrangement of content and wording. Then, the questionnaire was sent to a professional English editor to check the phrasing, the flow of the sentences and the overall use of the language. Based on the feedback from colleagues and the editor, the questionnaire was subsequently revised and refined. The final draft of the questionnaire was then submitted for pre-testing in the industry. This was vital to make sure that the questions asked were understood and relevant to the organisations. Three questionnaires were distributed during this process for the purpose of the pre-test. The questions addressed the following issues:

- i. The structure and design of the overall questionnaire such as the layout, spacing, font size and design.
- ii. The instructions of the questionnaire
- iii. The fluidity and flow of the sentences.

The comments and feedback from the organizations were compiled and constructively criticised before the amendments were made. Most of the suggestions were taken into account and corollary changes were made to the questionnaire

before it became the final version to be used in the actual fieldwork. In general, the managers took between 10 to 15 minutes to complete the questionnaire.

3.6 Data Screening and Checking

Screening and checking of data are important to ensure that the data is free from any errors. Inaccuracies might occur during the data entry that spoils the analysis. The following sections discuss the detection of missing values, detecting the outliers and data manipulation.

3.6.1 Detection of Missing Values

During the period of data collection, the missing data was reduced as much as possible by checking all the questionnaires. When questions were found unanswered or incomplete, it was immediately brought to the attention of the related respondents who were asked to complete the missing information. All the data was manually keyed into SPSS version 14. Then, a frequency distribution for each variable in the study, as well as missing values analysis was run to ensure that the data was clean. The results indicated that there was no data missing in the data set.

3.6.2 Detection of Outliers

There are four classes of outliers; a) data entry error or mistake in coding; b) outliers due to extraordinary event; c) extraordinary observations for which the researcher has no explanation; and d) observations that fall within the ordinary range of values on each of the variables (Hair, Black, Babin, Anderson, and Tatham, 2006). Therefore, it is important to make a distinction between outliers that ought to be deleted and those that ought not to be. The data was cleaned by running the frequencies and obtaining the descriptive tables, which can be used to determine the extent of item non-responses, errors on terms of illegitimate responses, and cases with extreme values or outliers. From the output of the descriptive tables, all the items in each section of the questionnaires were examined to ensure that responses were within the range of the items or scales, and the extreme values were identified. The results indicated that no error was detected in the data set of the study.

3.7 Data Analysis

Data analysis is a carefully planned step in the business research process. This step should stem from the purpose of the analysis that is to provide information to solve the problem. The purpose of any analytical method is to convert data information needed to make decisions. Very often it is more important to the business researcher to establish the relationship of two or more variables. In business research, relations are often referred to as encompassing the sameness a variable shares with another or the differences between groups on a certain variable. In analytical terms these are called the analysis of association and differences.

SPSS will be used in this study for data management and analysis. It is powerful software that facilitates the most widely used types of statistical analysis. Analytical techniques such as cluster analysis were used during the quantitative stage of the study. Before conducting any statistical analysis, a reliability analysis is necessary to tackle the issue concerning the scale's internal consistency. To check the reliability of the scale, Cronbach's coefficient alpha was used as an indicator of internal consistency and, as recommended by Nunnally (1967), the coefficient alphas of above 0.6 were considered as having high internal consistency. The statistical analyses to be applied include the Descriptive Statistical Analyses. The one-way independent sample t-test and analysis of variance (ANOVA) were used to determine if the perception means vary among different demographic characteristics and the study construct at 95 percent confidence level. Then, the multivariate analysis technique was used to test the relationship between independent and dependent variables.

3.8 Conclusion

By carrying out the above-mentioned analysis, it was possible to analyze the data and fulfil the objective of the study. This will, in turn, provide some valuable insights to manufacturers and policy makers as a way for them to find ways to improve their businesses. This will also help SMEs to improve their current competitive position and be more prepared to face challenges in the international market. For the policy makers, the results may provide them with the knowledge of how to improve their services in helping the SMEs to be more competitive.