

## Chapter 3 - Research Methodology

This chapter consists of four sections to give a clear view about the methodology to the reader. Firstly, the sections on arguments for triangulation method. This research study employs quantitative and qualitative approaches for the research. Secondly, the research design section presents the procedure to conduct the qualitative research, starting from selecting respondents to doing interviews, and the questions asked to get opinions and information from the respondents. Thirdly, the design for quantitative analysis which contains target population and unit of analysis, methods of data collection and analysis, proposed method for testing SME performance and its competitiveness. Lastly, a summary of the chapter is presented.

### 3.1 Arguments for Triangulation

There are two types of methods of research which are mostly used in the collection of data, quantitative and qualitative methods (Ghauri, 1995). The quantitative method consists of the systematic empirical studies which involves quantifying through the assistance of mathematics and statistics (Bryam and Bell, 2007). Whereas qualitative method is studying things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them (Denzin 1994). Qualitative research encompasses a range of philosophies, research designs and specific techniques including in-depth interviews; participant and non-participant observation; focus groups; document analyses; and a number of other methods of data collection (Pope 2006). Qualitative researchers are interested in understanding what those interpretations are at a particular point in time and in particular context (Sharan 2002). Qualitative research encompasses a range of philosophies, research designs and specific techniques including in-depth interviews; participant and non-participant observation; focus groups; document

analyses; and a number of other methods of data collection (Pope 2006). King, Keohane and Verba (1994) wrote that quantitative and qualitative research has the same fundamentals but different styles. One of their findings was that most research does not fit clearly into one category or the other. The best research combines the best features of each, quantitative and qualitative. In the same project, some data may be collected that is amenable to statistical analysis, while other equally significant information is not. If we are to understand the rapidly changing social world, we will need to include information that cannot be easily quantified (King, Keohane and Verba, 1994, p. 5).

Mandalay SMEs is comprised of numerous SME's, hence quantitative or qualitative analysis alone will not give a clear view and proper understanding of the data and come to a proper conclusion. In order to understand the cluster cooperation and its effects to competitiveness of a region, this research employed a combined method, which includes both quantitative and qualitative, which is also known as Triangulation method. Silverman (2006) explained, there are three main ways to combine quantitative and qualitative research:

1. Using qualitative research to explore a particular topic in order to set up a quantitative study. For example, designing a questionnaire on racial prejudice, it may be useful to begin by holding semi-structured interviews with community leaders and police officers together with focus groups composed of members of different ethnic communities.

2. Beginning with a quantitative study in order to establish a sample of respondents and to establish the broad contours of the field. Then using qualitative research to look in depth at a key issue using some of the earlier sample.

3. Engaging in a qualitative study which uses quantitative data to locate the results in a broader context.

Researcher uses the first method, whereby researcher interviews the respondent to find out the problem in the cluster and then use quantitative methods to analyze the problem. Cooper and Schindler (2008:185) described Triangulation as combination of several qualitative methods or combining qualitative with quantitative methods. Cooper and Schindler (2008:186) went on to explain that qualitative research compensates for the weaknesses of the quantitative research. Triangulation is a powerful technique that facilitates validation of data through cross verification from more than two sources. In particular, it refers to the application and combination of several research methodologies in the study of the same phenomenon.

For this research the purpose of the qualitative analysis is to understand the current scenario of the SMEs in Mandalay, to get a hands-on understanding of the problems faced by SMEs while exporting. On the other hand quantitative method which is more of statistical and mathematical analysis is used to confirm the finding of the qualitative method, showing the competitiveness of the cluster and the firms have decreased or increased during the aforesaid period. The results of the quantitative analysis can be clarified by the qualitative approach to understand and get a clear conclusion from the data. Denzin explained that no single method ever adequately solves the problems of rival casual factors because each factor shows different aspects of empirical reality, multiple methods must be employed (Denzin 1970; 1978, p. 20; 1979).

### **3.1.1 Limitations of the method**

A major concern of using a triangulation strategy is that it uses theories and methods with different philosophies that can lead to theoretical and methodological opportunism and incoherence. Collecting more data requires greater planning and organization—resources that are not always available to lead researchers (Thurmond, 2001). Thurmond (2001: 256) pointed out that the method may include include the “possible disharmony based on investigator biases, conflicts because of theoretical frameworks, and lack of understanding about why triangulation

strategies were used” (Thurmond, 2001, p. 256). Each method has some limitations and disadvantages; hence there is always scope for improvement.

### 3.2 Population and study sample

There are around 500 SMEs in the Mandalay region, being comprised of Medium, small and very small enterprises.

Sample size for the qualitative research interviews were chosen by snowball technique in total 10 interviews were conducted to find variable framework with different groups of interviewees ranging from firms, related industries and government bodies.

Sample sizes for the quantitative analysis were the 100 SMEs and their contact along with relevant information was shared by Mandalay Chamber of Commerce, Myanmar.

### 3.3 Research Design

Researcher uses the triangulation method to shed lights on the problems faced by SME entrepreneurs in SME division. Two types of data have been used in the assessment:

1. Interviews with players selected from all sectors of the cluster. (Companies, Education, Government as well as NGO's)
2. Questionnaire distributed to the member companies in the cluster. Data collection has been done on the basis of Socio-economics factors which can play a major part in hindering the prospect of SMEs going international.
3. Interviews with selected SME Entrepreneurs and Industry expert. (Companies, Education, Government as well as NGO's)

4. Questionnaire distributed to the SME firms. Data collection has been done on the basis of factors which acts as a problem for SME entrepreneurs.

Qualitative analysis claims that a better understanding of casual processes can be obtained from intimate acquaintance with people and their problems resulting from qualitative observations (Guba and Lincoln, 1981: 145; Patton, 1984: 109). Hence, researcher uses this method to get various opinions of the respondents. In order to acquire information and opinions from major players in Mandalay division and their knowhow about the problems faced by SME entrepreneurs, the qualitative method according to Rossi and Freeman (2003), has an important role to play.

#### *3.3.1.2 Sampling and Data Collection*

**Explorative Interviews:** In order to get a preliminary understanding on the issues related to SMEs and entrepreneurs, an explorative study with the support of interviews are conducted. These interviews provide initial awareness about the challenges of SMEs in general and the entrepreneurs in particular for in depth analysis Sample size for the qualitative research interviews were chosen by snowball technique in total 10 interviews were conducted to find variable framework with different groups of interviewees ranging from SME firms, related industries and government bodies. Sample size for the quantitative analysis were 100 SME firms in the Mandalay Region.

To gather data for analysis, data collection will be done through open ended semi structured in depth interviews. The researcher will first start the qualitative research by getting a purposive sampling and used snowball technique to interview 10 respondents within the Industry in Mandalay. The interviews to be conducted in English, and the researcher will be accompanied by a local Myanmar citizen with proficiency in local and English Language. One of the main reasons to do this research is to get into the core of the problem, hence researcher wants the interviewee to

be in ease to speak their mind out rather than being stereotype. Two-way communication processes between the interviewer and interviewees will be conducted, to get the true reasons. The purpose of gathering data is to get individual opinions and described the details facets and problems of the cluster of the ceramic industry and moreover any recommendation which they thought will enhance the competitiveness. The whole idea was to look at the problems and understanding then further writing of the paper. The samples were arbitrarily selected as the interviewer wanted the respondent who are directly involved in the cluster and the firms involved in it.

Face to face interviews were used, and the time spend on each interview was forty-five minutes to one hour. The interviews were done in confidence and confidentially hence encouraging the respondents to give their correct views and ideas as well as warm cooperation which is very essential during interviews. All respondents were high-level officials, professors, entrepreneurs and government officials therefore knowing the real strategies and situations of their organization and the cluster.

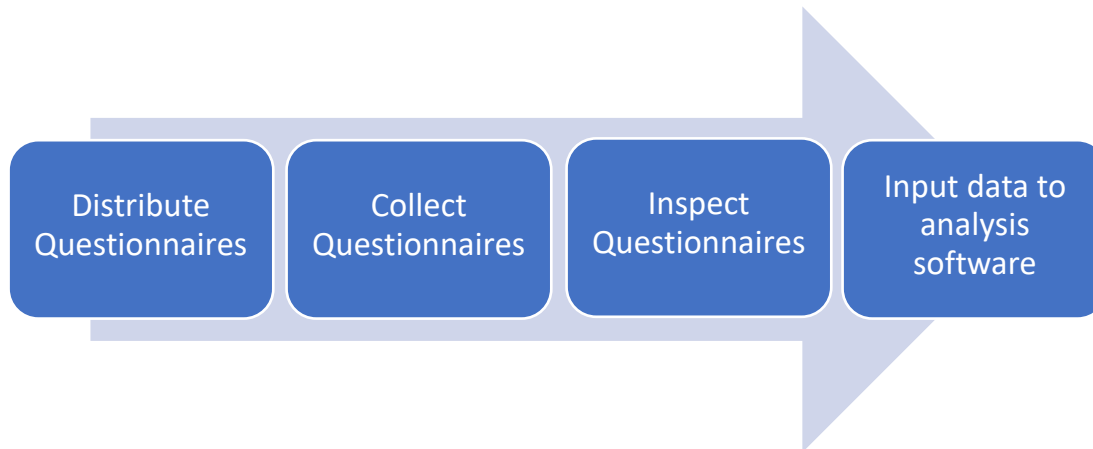
Table 3.1 Summary of respondents in interviews

Groups	Occupation	Number
(A) Related Industries	High ranking officials	2
(B)SME firms	Entrepreneur and senior officials	8
(C) Education Institutes	Presidents and Deans	2

Data found from the in-depth interviews needs to be confirmed and cross checked; hence quantitative methods will be used. Quantitative methods are employed to understand the phenomenon in the cluster and how different variables recognized through qualitative research.

There are around 500 SME firms in the Mandalay region. To conduct the research, the researcher got the list of SME firms from Mandalay chamber of commerce. The sample population was asked to answer a survey with questions pertaining to this research topic.

### 3.3.2.2 Method of Data collection



*Figure 3.2: Quantitative Analysis Process Design*

All the questionnaires were inspected for their correctness and that all categories were answered, and the Burmese translated questionnaires were aligned with the English questionnaires.

All the received data were input into statistical analysis software, along with the variables. Followings are the statistical tools utilized in analyzing and interpreting the data collected:

- **Percentage**

Percentage is the ratio of a part of the whole multiplied by a hundred. The respondents' answers were analyzed and interpreted using percentage. It gives a clear view as how much percentage of respondents agreed or disagreed on a questionnaire.

- **Frequency Distribution**

Frequency distribution is the arrangement of data that shows the frequency of occurrence of different values of variables. Frequency shows the number of respondents' who agreed or

disagreed to the given variables, it shows the quantity part which gives a view about the respondents behavior.

- **One Simple T-test:** To test whether the proposed variables (raw materials, finance and credit, infrastructure and technology. Globalization, marketing and human resource) act as problems for SME Entrepreneur in Mandalay region.

### 3.4 Translation / Back Translation

Language barrier is one of the initial problem in conducting the study as Mandalay is located in North of Myanmar, and the population use Burmese to communicate, moreover a section of population is well versed in English Language. Though, most of the Entrepreneurs of the large ceramic firms were well versed, but the main problem will be getting data from the smaller firms. This is where the researchers used translation and back translation. Researcher sought the help of Lecturer at Victoria University College to translate the questionnaire into Burmese Language. Again, the questionnaire in Burmese Language was translated back into English with Assistance with senior lecturers and Dean of Business faculty.

Interviews were conducted in English as all the interviewees being Entrepreneurs and officials holding high position in Government bodies and educational institutes.