CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the hypotheses underlying this research on possible features that could influence the decision of the buying centre of the manufacturing industry, specifically in the Klang Valley area.

These features may support the proposed model in Figure 1 – Buying Centre Decision Process Behaviour, which was partly extracted from the Sheth model (1973) of industrial buyer behaviour and the sixth stage of buying decision process by Robinson, Faris and Wind (1967).

**Influential Features**
- Price
- Recommendation by end users
- Buyer's loyalty
- Transaction value
- Customer-supplier relationship
- Market Orientation
  - Trust
  - Cooperative Norm
  - Satisfaction
  - Commitment

**Industrial Buying Process**
- Evaluation of proposals
- Selection of suppliers or vendors

**Decisions**
- Autonomous
- Joint

Figure 1 – Buying Centre Decision Process Behaviour
3.1 Research Hypotheses

In order to examine the possible features that could influence the buying decision of the buying centre, this study seeks to answer following hypotheses:

*Hypothesis 1, $H_{01}$*: The decision of an industrial buying centre is influenced by the prices of the products or services.

*Hypothesis 2, $H_{02}$*: The decision of an industrial buying centre is influenced by the recommendations from end users who have had experience using the product or services.

*Hypothesis 3, $H_{03}$*: The decision of an industrial buying centre is influenced by customer loyalty to the product or service.

*Hypothesis 4, $H_{04}$*: The decision of an industrial buying centre is influenced by the transaction value of the product or service.

*Hypothesis 5, $H_{05}$*: The decision of an industrial buying centre is influenced by the type of relationship (willingness to stay) developed between customer and supplier.

*Hypothesis 6, $H_{06}$*: The decision of an industrial buying centre is influenced by the market orientation selected variables.
3.2 Research Instrument

The research instrument used in conducting the study utilises a twelve-page questionnaire. The questionnaire was adapted from questionnaires by previous researchers such as Sinha and Smith (2000), Boles, Barksdale and Johnson (1997), Hansen, Swan and Powers (1996), and Baker, Simpson and Siguaw (1999). The questionnaire was divided into three sections; Section A – Buying Decision Process, Section B – Influence of Market Orientation and Section C – Respondent and Company Demographics.

Responses to the statements set in Section A and B are measured using the 5-point Likert scales. The scale is rated from 1 to 5, with 1 = Strongly Agree and 5 = Strongly Disagree. This measures a range of respondent agreements between strongly agree or disagree. Except for the respondent demographics, ordinal scales were used.

The survey questionnaires were then tested and found to be consistent with respondent answers. The full survey to obtain the primary data was conducted on selected companies listed in FMM Directory located in the Klang Valley. There are about 2,000 companies registered with FMM and about 500 selected companies in the Klang valley were issued with the questionnaires via their e-mails as well as direct person-to-person interview. 96 respondents responded to the survey.

3.3 Reliability of Instrument

Cronbach’s Alpha reliability coefficient (Cronbach, 1951) is used to determine the extent to which the items in the questionnaires are related to each other, and an overall index of the repeatability or internal consistency of the scale as a whole is obtained. The index obtained equals an Alpha value that indicates reliability of the survey data level which measures are free from error and therefore yield consistent results (Peter, 1981). Nunnally (1978) suggested
that an *Alpha* value greater than 0.7 is considered internally consistent, however as a guide, minimum *Alpha* = 0.6 is acceptable even though it is in the lower range of survey data reliability (Sekaran, 2000).

Furthermore, most of the questions were adapted from the following previous researches and later amended to suit research objectives.

- Relating to Price – Sinha and Smith. (2000). Consumer’s Perceptions of Promotional Framing of Price. *Journal of Psychology & Marketing*, 3, 257-275. For example is price consciousness such as “I am not willing to go to extra effort to find lower prices”

- Relating to Repeat Purchase (Based on product brands, after sales technical support services) – Hansen, Swan, Powers (1996). The Perceived Effectiveness of Marketer Responses to Industrial Buyer Complaints: Suggestions for improved vendor performance and customer loyalty. *Journal of Business & Industrial Marketing*, 1, 77-89. For examples are seek assistance from vendor.


Industrial Marketing, 1, 77-89. For examples are respondent and company demographics.

3.4 Sampling Procedure

Data was randomly sampled from the companies listed in the FMM directory and located in the Klang Valley. Questionnaires were sent to the respective companies and handed personally to the person in charge at the time of the survey. The completed questionnaires were collected on the same day.

The companies chosen were from different sectors of industry to ensure a fair distribution of respondents, and that the random sample does represent the whole industry.

3.5 Data Collection Procedure

Most questionnaires issued to the respective companies were sent out personally and collected on the same day. Some company representatives prefer to complete it right away when given the questionnaires and requested some explanation of some of the questions asked.

3.6 Data Analysis Techniques

The data collected was analysed using the Statistical Package for Social Science (SPSS). The data was divided into two groups, the dependent variables and independent variables. The dependent variables include answers to questions set in Section A and B. The independent variables were answers to questions set in Section C.

In Section A, Buying Decision Process - there are three major groups of questions related to Price, Transaction Value and Repeat Purchase.
In Section B, Influence of Market Orientation – there are four major groups of questions related to Trust, Cooperative Norms, Satisfaction and Commitment.

In this study, once the reliability and validity analysis has been done, further descriptive analysis based on frequencies of respondents to each of the major variables was conducted. Factor and equality of means or t-test analysis, ANOVA and Multiple Regressions analysis was also carried out to test the hypotheses proposed.