CHAPTER FOUR
RESEARCH METHODOLOGY

4.0. Introduction

The purpose of the study is to examine the perception of managers towards the effectiveness of management of change to achieve quality culture at IIUM. This chapter is divided into four sections as follows: (1) the sample and sampling technique; (2) research instrument; (3) data collection procedures; and (4) data analysis techniques.

4.1. The Sample and Sampling Technique

The populations of this research involved all managers of Category A, i.e., Professional & Management Group and Category B, i.e., Support Group with a total number of 395. The sample of this study was 160 staff which is selected by using the disproportionate stratified random sampling technique.

According to Sekaran (1984: 185), stratified random sampling involves 'a process of stratification or segregation, followed by random selection of subjects from the strata. He added that, by using this technique, population is first divided into mutually exclusive groups that are relevant and appropriate in the context of the study. In this research, the population is divided by its position's category such as Director (54), Deputy Director (48) and the like. The reasons for choosing this technique, according to Emory & Cooper (1991: 266), are to: (1) increase a sample's statistical efficiency; and (2) provide adequate data for analyzing the various subpopulations.
Disproportionate is a situation where the number of sample in each stratum is altered and the sample size remains unaltered. This is done to ensure that each stratum would be considered more appropriate and representative for the study (Sekaran, 2003: 273). Table 2 shows the distribution of samples and respondents of the study according to position categories.

Table 2: Distribution of samples and respondents' of the study according to position categories

<table>
<thead>
<tr>
<th>Position Categories</th>
<th>No. of elements</th>
<th>No. of sample</th>
<th>No. of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director (N54 and the like)</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>3.4</td>
</tr>
<tr>
<td>Deputy Director (N48 and the like)</td>
<td>35</td>
<td>20</td>
<td>16</td>
<td>13.7</td>
</tr>
<tr>
<td>Administrative Officer and the like (N41 and the like)</td>
<td>186</td>
<td>70</td>
<td>55</td>
<td>46.2</td>
</tr>
<tr>
<td>Sen. Assist. Adm. Officer and the like (N32 and the like)</td>
<td>27</td>
<td>14</td>
<td>6</td>
<td>5.1</td>
</tr>
<tr>
<td>Assist. Adm. Officer and the like (N27 and the like)</td>
<td>139</td>
<td>52</td>
<td>37</td>
<td>31.6</td>
</tr>
<tr>
<td>Total</td>
<td>395</td>
<td>160</td>
<td>118</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2. Research Instrument

The questionnaire was used as the main instrument for the collection of data. It is chosen as it 'is an efficient data-collection mechanism when the researcher knows exactly what is required and how to measure the variables of interest' (Sekaran, 1984: 145). In addition to that, when time constraints exist, Sekaran states that the questionnaire could help researcher to collect data within a short period of time. In this research, the
questionnaire consists of five parts, i.e., Part I, II, III, IV & V. The questions in Part II, III, IV & V were adopted from various questionnaires developed by other researches. They were chosen as they test the same dimension of variables of this research. The details of each part are as follows:

*Part I: Demography and Organization Related Characteristics*

It tries to collect respondents' information related to position, qualification, age, gender, status and length of services.

*Part II: Perception on Management of Change*

It consists of 25 items and this part gathers information pertaining to the respondents' perception on the dimensions that indicates the effectiveness of management of change. Items 1, 6, 11, 16 and 21 measure the organizational commitment; items 2, 7, 12, 17 and 22 measure work culture; items 3, 8, 13, 18 and 23 measure participative management; items 4, 9, 14, 19 and 24 measure communication system; and finally items 5, 10, 15, 20, 25 measure organizational learning.

The questions were adapted from previous researches. Items for organizational commitment, work culture, communication system and participative management are adapted from the research on 'Organizational Climate and Communication Climate as Predictors of Commitment to the Organization: A Case Study' in Malaysian Management Review (Vol. 31, Issue 4, 1996). Whilst questions for organizational learning are adapted

The respondents were asked to state their response (the degree to which they perceive each statement) by circling the relevant number based on Likert Scale which can be interpreted as follows: (1) Strongly disagree; (2) Disagree; (3) Not sure; (4) Agree; and (5) Strongly agree. The internal reliability of the 25 items was measured by using the Cronbach's alpha and its value is .8005, greater than the minimum acceptable value. According to Mohd Salleh & Zaidatun (2001: 261), research instrument with alpha close to 1 has high reliability coefficient.

**Part III: Attitude Towards Change**

It consists 15 items which tries to examine the respondents' attitude towards change. The questions are adapted from the research conducted by Yong Lee Fen entitled 'Organization Development and Change Management for INTAN' in Intan Management Journal (1998 - Vol. 4 (1): 36 – 69) and questionnaire designed to determine the wellness of the organization works by Carnall (1995: 91 – 92). The value of the 15 items' internal reliability in this study, which was measured by alpha Cronbach is .8588.

As in Part II, the respondents were asked to state the degree to which they feel for each statement by writing the relevant number based on Likert Scale which can be interpreted as follows: (1) Strongly disagree; (2) Disagree; (3) Not sure; (4) Agree; and (5) Strongly agree.
Part IV: Behavior Towards the Implementation of Quality Principles

This part consists of 14 items. It collects information pertaining to the respondents' behavior towards the implementation of quality principles in their respective departments as well as at the University level. The questions are adapted from the research conducted by Wong Foong Lai (1996/1997) entitled 'A Study of Quality Culture in the Department of Environment', i.e., a Research Report submitted in partial fulfillment of the requirements for the Degree of Masters of Public Administration, University Malaya. The value of the 14 items' internal reliability in this study, which was measured by alpha Cronbach, is .8737.

In this part the respondents were asked to state their response (the degree to which they do for each statement) by circling the relevant number based on Likert Scale which denote the following responses: (1) Never; (2) Rarely; (3) Sometimes; (4) Most of the times; and (5) Always.

Part V: Perception on the Organizational Functions

This part consists of 30 items which tries to collect information pertaining to the respondents' perception on the organizational functions. The questions are adapted from the research conducted by Yong Lee Fen entitled 'Organization Development and Change Management for INTAN' (1998 - Vol. 4 (1): 36 – 69). The detail of the distribution of items are as follows: items 1, 7, 13, 19 and 25 measure the organization purpose; items 2, 8, 14, 20 and 26 measure organization structure; items 3, 12, 18, 24 and 30 measure mechanisms; items 4, 10, 16, 22 and 28 measure within organization relationships; items 5, 11, 17, 23 and 29 measure rewards system; and items 6, 9, 15, 21 and 27 measure leadership...
contribution. The value of the 30 items' internal reliability, which is measured by using alpha Cronbach's, is .9414.

In this part the respondents were asked to state their response (the degree to which they do for each statement) by writing the relevant number based on a 7-point Likert Scale which denote the following responses: (1) Strongly disagree; (2) Disagree; (3) Slightly disagree; (4) Neutral; (5) Slightly agree; (6) Agree; and (7) Strongly agree.

4.3. Data collection procedures

Notification to the International Islamic University was sent to obtain permission to conduct this research. There were two main procedures used for the collection of data. The first procedure was interview and the second was a self-administered survey. The first procedure was used to collect preliminary data for the exploratory purposes. Interviews with several key figures such as head of division and with support staff as well as managers were conducted. The second method was employed for the actual data collection.

The questionnaires were sent to (and receive from) the respondents through the internal mail services available at the institution. This exercise took about two weeks i.e. from 14 till 31 July 2003. Prior to this exercise, the pre-testing of the research instrument was done.

The pre-test was administered among the students of Masters of Corporate Communication, University Putra Malaysia, with the assistance of one of its Instructors in early July 2003. A total of 24 respondents were involved in this exercise. Minor correction in Part I was done in response to the comment made, i.e., (1) the deletion of previous
working experiences; (2) Educational background is changed to Highest Educational Qualification; and (3) Position is asked in an open-ended manner. The improved version of the questionnaire was used.

4.4. Data analysis techniques

The data collected were coded and computed. In dealing with the blank responses (less than 25% left unanswered) the mid-point to an interval-scale was assigned (Sekaran, 2003: 303). If the question is on 5-point scale the average is three (3) and if the question falls under 7-point scale the average is four (4). The statistical analysis was carried out by using the Statistical Package for the Social Sciences (SPSS 10.0). A descriptive statistic technique - frequency count - was used to analyse the demographic and organizational related characteristics of the variables.

To answer the research questions, i.e., to examine the respondents' perception towards the dimensions that indicate the effectiveness of management of change and the effectiveness of the organizational functions, descriptive statistic technique was also employed to know its mean and standard deviation. In order to get the mean for each variable, 'the sum of the observed values in the distribution is divided by the number of observation' (Emory & Cooper, 1991: 472). As to interpret or determine the mean obtained, Emory & Cooper (1991: 475) explained that, 'when the tail stretches to the left, to the smaller values, it is negatively skewed. Scores stretching toward the right, toward larger values, skew the distribution positively'. In this research, it can be inferred that, if the mean for the 5-point scale and 7-point scale skewed to be below than three (3) and four (4) respectively, this explain that the managers' perception on the evaluated variables is low, and vice versa.

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To test the hypotheses, Pearson Correlation was used to measure the relationship between the dependent variables and the independent variables. In order to determine the strength of the correlation, Blaikie (2003: 100) suggests the following convention:

Table 3: Convention of correlation value

<table>
<thead>
<tr>
<th>r value</th>
<th>Strength of the correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>None</td>
</tr>
<tr>
<td>0.01 – 0.09</td>
<td>Negligible</td>
</tr>
<tr>
<td>0.10 – 0.29</td>
<td>Weak</td>
</tr>
<tr>
<td>0.30 – 0.59</td>
<td>Moderate</td>
</tr>
<tr>
<td>0.60 – 0.74</td>
<td>Strong</td>
</tr>
<tr>
<td>0.75 – 0.99</td>
<td>Very strong</td>
</tr>
<tr>
<td>1.00</td>
<td>Perfect</td>
</tr>
</tbody>
</table>