

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Qualitative Approach Using Delphi Technique

A qualitative approach employing the Delphi technique was used in this research. The research was an attempt to document and understand perceptions from an informal perspective that focus on individuals and groups i.e. Power Station Executives on activities in the everyday organizational world in which they live i.e. TNB Generation. The data collected from this informal method was mainly descriptive rather than statistical. This research was carried in two phases. Phase 1 involved the solicitation and preparation of key managerial problems from the perception of the respondents. A ranking process was then carried out to identify the top 20 most-mentioned problems based on the number of times the problems were being mentioned by the respondents. A list of the top 20 most-mentioned problems was being prepared for the Phase 2 part of this survey. Phase 2 involved a single round ranking of the top 20 most-mentioned problems identified and ranked earlier in Phase 1 and the top ten most important problems would finally be identified.

The steps in the sampling design process in this research survey were:

1. **Target population**: Power Station Executives with minimum grade of JG19 from all the 12 Power Stations of the TNB Generation. The summary of executive

job position in power station is listed in the Appendix A. The total number of the Power Station Executives were 315. The breakdown on the job grades of the survey population is as below:

<u>Grade</u>	<u>Position</u>
JG19-20	- Technical Executives
JG21	- Engineers/ Chemists
JG22-23	- Senior Engineers/ Chemists
JG24-25	- Middle / Top Managers Depending On Power Station
JG26-28	- Top/Middle Managers Depending On Power Station

2. **Sampling Technique**: Convenience sampling technique was used throughout this survey whereby the Phase 1 problem identification forms and the Phase 2 ranking forms were mailed to all the 12 stations. Those forms were later being distributed either by the researcher's representatives or by the stations to all its executives.

3.2 **Phase 1: Solicitation and preparation of managerial problems of TNB Generation SBU**

In Phase 1 the respondents have been asked to identify and describe between 5 to 10 managerial problems which in their opinion were the current problems of the TNB Generation that might hinder the success of TNB Generation in attaining its objectives and goals. The title of each problem identified by the respondents must be written at the column provided followed by a brief description of the problem. In this Phase a total of 315 problem identification forms were mailed to the 12 Power Stations. Respondents were reminded to identify the problems of TNB Generation SBU only and not of TNB as a whole. The conditions for eligibility to participate in the survey were: 1. Must be a permanent staff of TNB Power Station. 2. Must be an

executive with Grade JG19 and above. No limit was set on the number of respondents. However the respondents were required to write their salary grades and the power stations at which they were attached on the column provided. Once completed, the forms were later returned either by mail or being handed over personally by the appointed representatives. The researcher would then list-up those problems identified by the respondents and rank them from No.1 to No.20 according to the number of times each problem was mentioned by the respondents. Problems ranked from No.21 and above would be recorded but would not be used in Phase 2 part of the study.

A total number of 64 respondents responded with 304 problems. However the number of problems mentioned by the respondents ranged between 1 to 10 problems. Each respondent has been assigned an identification number to avoid complication and error. A list was then prepared for each of the respondents together with the problems identified by him. Those problems collected were later summarized by calculating the number of times they were being mentioned by the respondents and were later grouped into categories. Similar problem mentioned more than once by each respondent was counted as being mentioned only once. A list of the top twenty most-mentioned problems was then developed. The top twenty most-mentioned problems were then used as the basis for the Phase 2 of the study. A sample of the survey forms for Phase 1 of the research study is attached as Appendix B in this report.

3.3 Phase 2: The ranking process

In Phase 2, the respondents were required to rank the top 20 problems identified earlier in Phase 1 in the order of importance according to their opinion. A ranking form displaying the twenty most-mentioned problems together with their

descriptions were distributed to the respondents. In this Phase a total of 315 problem ranking forms were mailed to the 12 Power Stations. The respondents were told to rank the problems given in the ranking form in the order of importance from No.1 (the most important problem) to No. 20 (the least important problem) according to their opinion. No equal rankings were allowed in this part of the survey. The conditions for eligibility to participate were the same as those of Phase 1. Executives who did not participate in the Phase 1 of the study were still eligible to participate in this Phase.

A total number of 145 ranking forms were returned but 9 of them were rejected leaving the number of respondents to 136. A score has been assigned to the top ten most important managerial problems ranked by each respondent in the order below:

Problems Ranked No:

No. 1	=	10 points
No. 2	=	9 points
No. 3	=	8 points
No. 4	=	7 points
No. 5	=	6 points
No. 6	=	5 points
No. 7	=	4 points
No. 8	=	3 points
No. 9	=	2 points
No.10	=	1 points
No.11 to 20	=	0 points

The ranks given by each respondent was then translated into scores. Those scores of every respondent were then fed into the computer using Microsoft Access. The scores for each of the top 20 managerial problems were then added-up and the ranking of the top ten most important problems was then finalized. The higher the scores the more important the problem was. Hence by using the method described above, the top ten most important problems of TNB Generation were being identified and later ranked from the most important problem to the tenth most important problem by the respondents. A sample of the survey or ranking forms for Phase 2 is attached as Appendix C in this report.