



CHAPTER III

METHODOLOGY

1. CONCEPTION FRAMEWORK

Leaders and managers in the central hospitals located in Hanoi were interviewed using a questionnaire to determine the research objectives.

2. RESEARCH QUESTION

What is the most essential information that managers need for their routine work who are at three divisions namely, pharmacy, OPD and medical service in central hospitals located in HANOI ?

3. SECONDARY RESEARCH QUESTIONS

1. What is the average volume of data that the hospital managers have to handle and storage periodically?

2. What is the method by which the information needs are currently being collected ?

4. HYPOTHESIS

The importance of different types of management information in central hospitals is not the same; some types have higher priority than the others.

5. ASSUMPTION

There are assumptions that computerization can improve the quality of health services in hospitals, firstly the management information system, and that the budget for MIS is limited.

6. RESEARCH DESIGN : Cross-sectional survey

7. POPULATION SAMPLE

Target population :

Leaders, managers of central hospital located in Hanoi.

Study population :

Leaders, managers of central hospital located in Hanoi in three divisions : OPD, medical record and pharmacy.

Sample selection procedure :

the whole study population.

8. SELECTION CRITERIA

Inclusion criteria :

Director and vice-director of hospital, head and assistant head of the following departments or divisions:

- OPD
- Pharmacy
- Medical record

Exclusion criteria :

- Subjects who are not willing to take part.
- Subjects who cannot be accessed for the survey.

9. OBSERVATION AND MEASUREMENT

Manoeuvre :

One researcher and one hired interviewer collected data using the questionnaire.

The questionnaire consisted of 2 parts :

Self-administered part

The respondent who had been aware of the objectives of the study and other necessary information eg. concept of MIS, how computers can help the manager to control information etc. was requested to complete the demography data ie. name, position and to rank 12 types of information according to his need are completed by respondent.

Interviewer completed section :

Volume of data, method to collect and process data was completed by the interviewer based on respondent's historic data in log-book, report, medical report, drug description etc.

Further details can be found in the questionnaire in the appendix.

Measurement

The respondent was asked to prioritize the essential information for them by a rating scale from 5 to 1. Data later will be summarized means of rank. The higher the value is, the more important the information is.

Average Volume of Data (VD) :

Measured in characters, is calculated by the formula below :

$$VD = \text{Rec} \times \text{Item} \times \text{Char}$$

where Rec : average number of periodical record

Item : average number of items in a record

Char : average number of character in an item

Volume of Data Storage (VDS)

$$VDS = VD \times D$$

where VD : volume of data

D : average duration to keep data.

10. ANALYSIS

Data were entered by Foxpro/LAN ver. 2.00 then converted and processed by SPSS/PC + ver.3.0 package in micro-computer. Percentage, mean, SEM were used to present

the demography data, volume of data and method to handle information.

Non-parametric Kendall t-test was utilized for mean of rank score.

11. MINIMIZE BIASES IN THE ADMINISTERING THE MANOEUVRE

- To avoid misunderstanding about MIS and other concerning concepts, each questionnaire had an explanation and the interviewer explained more details to the respondents.

- Before the actual survey, a validity test had been done by experts (my advisors, two hospital directors and one MIS expert) checking if the questionnaire faced the research objectives and improving the explanation.

- Interviewers included a researcher and one staff from the human resource department who knew the hospitals well.

- Key answers were conveniently coded.

- Subjects who were absent were interviewed again one week later.

- To minimize the bias in data volume, the interviewer helped the respondent to evaluate based on existing reports or a registered book etc.

- Mostly Close-questions are used in the questionnaire.

12. ETHICAL CONSIDERATION

The study did not touch any ethical problem.

13. LIMITATION AND OBSTACLE

- To generalize the findings from the study to other divisions and hospitals, their mission must be taken into account with analogous method.

- All study's subjects are very important persons and always busy with their own work. It took much time and effort to contact them.

- The study's budget was inadequate.

- Communication from Vietnam to Thailand is difficult and takes a long time (3 weeks at least).

- We did not have opportunity to get information from subjects that were unaccessible. This limits the possibility of the generation from the study results.