

CHAPTER 3

METHODOLOGY

This research project comprised a pilot study and a separate main study. Figure 7 illustrates the steps taken in carrying out these studies.

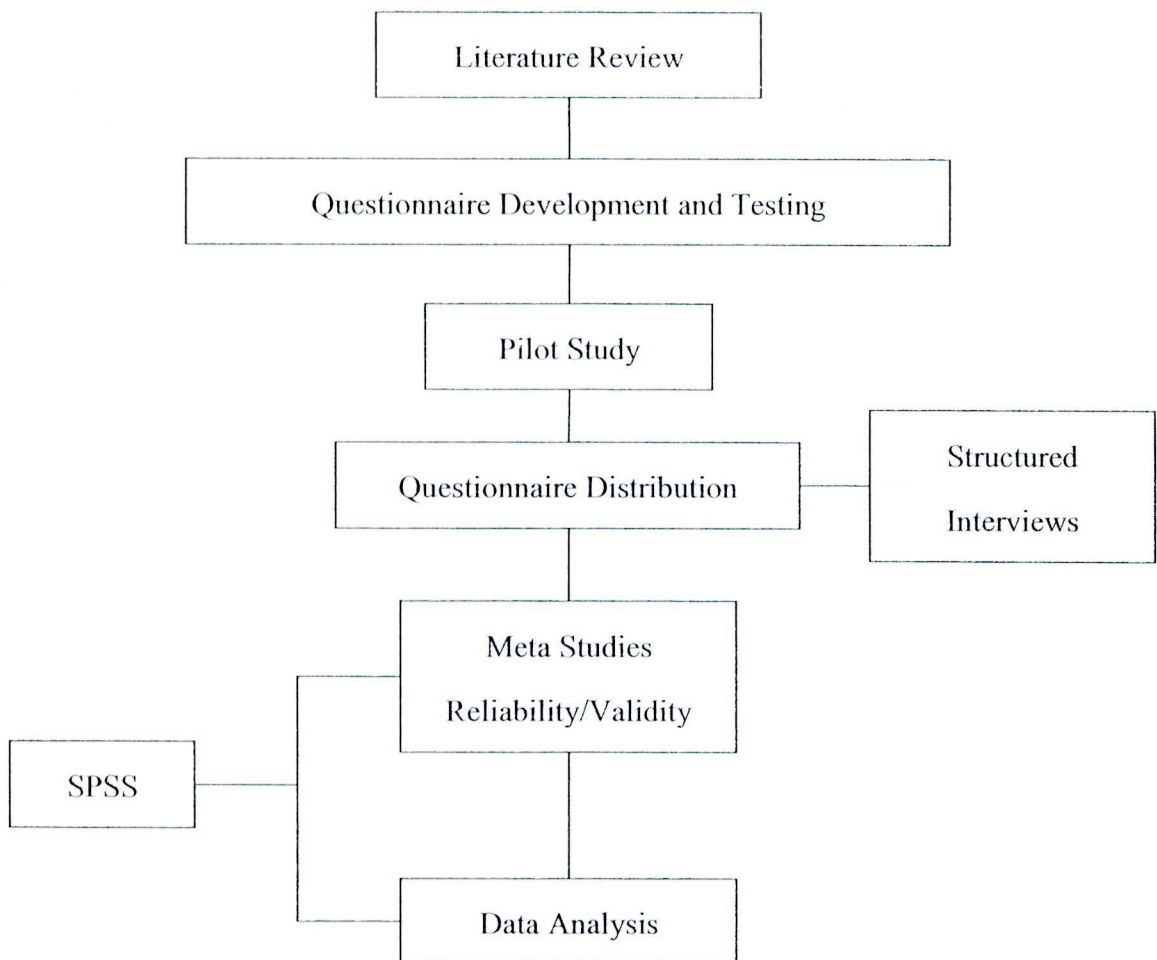


Figure 7 Methodology of research.

Data Analysis

Overview

A brief overview of the nature of each study and the instruments used follows. These will then be explained in more detail.

(a) Pilot Study: Prior to commencing the main research, a small pilot study was undertaken to consider the viability of using interest inventories and job satisfaction measures with subjects. For this study Holland's (1979) Self-Directed Search (SDS) was used, together with an 18-question work satisfaction questionnaire (adapted from Brayfield & Rothe, 1951).

Difficulties were found with using the SDS, as it was quite time-consuming.

The Subjects

The subjects in the final Sample comprised 400 individuals, all of whom were employed in mostly clerical, managerial and administrative occupations while also pursuing post-graduate education.

Table 1

Summary of Characteristics of the Subjects in Each Sample

Section	Sample 1: Pilot	Sample2: Clerical/Administrative/ Managerial/Students
Number of subjects	40	400
Female		247
Male		153

Instruments

The instruments used in this study were:

1. Holland's Self-Directed Search
 2. The Career Interest Card Sort (Hosking & Athanasou, 1995)
 3. The Brayfield and Rothe (1951) job satisfaction questionnaire
 4. The O'Brien, Dowling, and Kabanoff (1978) job satisfaction questionnaire
 5. A questionnaire (incorporating interest measure and O'Brien et al. (1978) job satisfaction measure) used with the group of technical teachers.
- Each of these tools will be described in turn.

Holland's Self-Directed Search (SDS) Holland (1979) is a widely known and easily scored method of assessing vocational interest types. It can be completed in 20 to 30 minutes, can be administered in bulk, and even encourages subjects to work out their own "scores". To gain familiarity with this inventory, the researcher used it in the small pilot study. The exercise took about 25 minutes per subject, and subjects were asked for their impressions of the measurement instruments. Comments from the subjects about the SDS included: terminology too 'American', and sometimes hard to choose between items, need a 'neutral' or 'undecided' category. The decision was made not to use the SDS instrument in the main studies, as it was too time-consuming and could be inappropriate for use with the target population as they might not have the time to fill it out, might be wary of researchers, or could have literacy difficulties. The SDS categories, however (Realistic,

Investigative, Artistic, Social, Enterprising and Conventional) were used in the recording and analysis of subjects' responses.

Once the researcher was satisfied with the career interest card sort's reliability, the questions on the cards were then translated in to questions as administering the cards would be difficult. The Brayfield and Rothe (1951) work satisfaction questionnaire was used in the pilot study. This measure consists of eighteen statements to which subjects indicate their responses according to five-point scale, ranging from "strongly agree" to "strongly disagree". Each item is scored from 1 to 5, giving a total potential score of between 18 (low) and 90 (high). The questionnaire asked respondents for their emotional reactions to their jobs, rather than asking them about specific aspects of the jobs. Although an old measure, the scale has continued to be used up to more recent times. Reliability and validity statistics, and norms, as follows, were taken with the internal consistency reliability of the scale at .87. The results of three studies supported the validity claims of the instrument. The first study concerned person-environment fit or congruence, finding satisfaction levels of congruent individuals to be higher than those of non-congruent individuals; the second study correlated the test scores with the Hoppock Job Satisfaction Questionnaire obtaining a correlation of .92; and the third study correlated scores with Job Descriptive Index (JDI) scores, obtaining a correlation of .66 (British Telecom, 1984).

The internal-consistency ('split half') reliability of the two job satisfaction questionnaires was also measured. The split-half reliability

correlations obtained, corrected for test length using the Spearman-Brown formula, were:

Sample 1 (Brayfield and Rothe measure): 0.82

Sample 2 (Brayfield and Rothe measure): 0.92

It would therefore appear that both questionnaires have adequate split-half reliability.

Procedure

One-on-one interviews were the chosen method of data gathering for the pilot study (Cohen & Manion, 1989).

The current research project used, among other methods of data collection, a structured interview process which was tried out on a very small sample (10) to test the questionnaire. In planning the interviews, a schedule was devised, detailing the questions to be asked (including wordings), the order the questions were to be asked, and the explanations to be made to the interviewee. While the wording and order of the questions was adhered to, some flexibility was required to clarify questions on occasion, where subjects queried meanings. The issues of informed consent, and the establishment of rapport, were paramount in the project. If participants were not volunteers, or did not feel goodwill toward the researcher, they were unlikely to contribute anything useful to the project. Fortunately, most people who were invited to participate appeared willing to oblige; perhaps because they enjoyed the opportunity to talk about themselves.

The structured interview used in this project consisted of an introduction to the project, assurances of confidentiality, card of interest definitions, questions regarding current occupation and tenure, a written (completed) work satisfaction questionnaire and the collection of non-identifying personal data. In addition to the more quantitative data collection methods used in the interviews and questionnaires, subjects were also asked two open-ended questions. These were:

1. What do you like most about your current position?
2. What do you like least about your current position?

By asking these question, at a late stage in the interview so that (hopefully) the subjects would feel relaxed, the researcher hoped to gain an idea of whether subjects' satisfaction was due to task-related or condition-related factors, that is, whether the tasks performed in the job, or other aspects of employment (such as hours, location, work mates or supervisors) were uppermost in workers' minds when they considered their job satisfaction levels. The interviews were estimated to take 8 to 10 minutes to complete, and appeared more appropriate for use with subjects in professional occupations, than more complicated written procedures such as the Self-Directed Search.

Once the format of the interviews had been planned, the data collection commenced. Subjects were found in several different ways. In the majority of cases existing and ex-MBA students were contacted and permission was granted.

The interviews were carried out over a period of ten months. It was always emphasized to the workers that their participation was voluntary, yet very few chose not to be interviewed.

Analysis

Throughout the data collection process results were recorded, by subject number, on SPSS.

A number of statistical analyses were carried out on the data obtained. Tests were also carried out to see whether males and females, people with differing educational attainment, and people with differing tenure in their jobs showed different levels of 'fit' or fit or congruence.

Job satisfaction was measured next. Average levels of job satisfaction for each subject group were calculated, and comparisons were also made between females and males, and people with differing levels of tenure, and education consistency. Response frequencies to the questionnaires were compared.

Thirdly, relationships between 'fit' or fit or congruence and satisfaction were examined. Rank correlations were used to quantify the level of agreement. Partial correlations were also used, to control for other factors, which may have affected the fit or fit or congruence-satisfaction relationships. The steps taken in the analysis are shown in Chapter 4.

Sample

As stated the sample came from postgraduate students from a number of universities. In Bangkok alone a dozen universities and foreign institutions offer MBAs with an average of 100 students each.

Sample Size

Therefore, the sample size is set using the Yamane's formula allowed for an acceptable error of 0.05 (Yamane, 1967, p. 583).

$$n = \frac{N}{1 + N(e^2)}$$

n = sample size

N = population size

e = sampling error (an acceptable error has been set in this research at .05)

According to the formula, the amount was:

$$\begin{aligned} n &= \frac{1,200}{1 + 1,200(0.005^2)} \\ &= 400 \end{aligned}$$

So, the sample size equals 400.

For random sampling, the researcher employed non-probability sampling by accessible sampling for selecting the sample.

Variables in the Study

Dependent Variables

The dependent variables in this research are Career Interest, Personality and Job Satisfaction.

Independent Variables

The independent variables for this research are the demographic information: the respondents' gender, age, education, types of organization, length of service, and position.

Research Model

Reliability

For the reliability of the research instrument a pre-test with a sample size of 30 subjects with the same characteristics as the research sample was carried out. This test was conducted to assure the clarity of the questions and achieve a mutual understanding as concern the order, correctness, and correspondence between the answer and the study's objectives. Any faults were then corrected for the reliability of the study before the actual data collection. From the collecting of the Pre-test data of 30 respondents, the reliability statistics showed Cronbach's alpha coefficient at 7.40. With a result of more than 0.7000, these questions can therefore be used for the study (Cronbach, 1951, pp. 297-331).

**Table 2***Cronbach's Alpha Coefficient Scores*

Section	Cronbach's Alpha Coefficient
Overall Questions	.740
Career Selection Factors	.870
Career Interest Types	.635
Own Career Interests	.734
Job Satisfaction Factors	.658

Another way of validating the questionnaire was to examine the details of other studies which have used these questions.

The field of vocational counseling has grown based on the central assumption that job satisfaction is related to the degree of fit or congruence (or "fit") between individuals and their work environments. For several decades, people have completed interest tests (such as the Self-Directed Search and the Strong Vocational Interest Blank) and have been advised, because of their results on these tests, to enter particular occupations or fields of study. It is probable that numerous issues such as ability and working conditions, apart from fit or congruence affect whether a person will enjoy a job.

Summary

The chapter detailed the way in which the questionnaire was designed and tested. The sample size and composition was outlined and the reliability of the instruments set out. To further validate the questionnaire meta-analysis of various studies was carried out and analysis made.