

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. INTRODUCTION**

The purpose of this chapter is to describe the research methodology used in this study.

#### **3.2. DATA DESCRIPTION**

The data used in this study were all from secondary source. The writer used various journals, articles and seminar papers to gather information to write the theoretical part of the study. However, for the purpose of analysing the members' savings, the required data were obtained from the Computer Department of Employees Provident Fund. The Computer Department keeps records pertaining to all the members in the database and the information can be retrieved any time on request. The data used in this study were all extracted as at 31<sup>st</sup> December 1999, because, this is the cut off time used for crediting the annual dividend payments to the respective members accounts and hence the study will be more accurate.

### **3.3. METHODOLOGY**

#### **3.3.1. SAMPLE**

The aim of this study is to examine the adequacy of benefits the Employees Provident Fund provides to its members upon retirement. Therefore, the main subjects of the study are the members who have attained the age of 54 years. This is because, these members will be looking forward to withdraw their savings fully from the fund upon reaching 55 years. Hence, for the purpose of this study we extracted the data relating to members who had attained the age of 54 years as at 31<sup>st</sup> December 1999. In the Employees Provident Fund the total membership as at 31<sup>st</sup> December 1999, was about 9.5 million members. However, at that time only about 21722 members attained the age of 54 years and were actively contributing to the fund, hence, they were selected for this study.

#### **3.3.2. PROCEDURE**

We also extracted the data of the total membership according to savings to study the general savings pattern of the members as a whole. After this was done, the members' data for those who had reached the age of 54 years was separated from the list. A further distinction was made to separate the members who had reached 54 years and actively contributing with those who are dormant.

This was done to establish whether those members who actively contribute to the fund have sufficient savings compared to those who had stopped contributing and also to determine the last drawn salary of the members concerned basing on their monthly contributions. This is because the monthly contribution is based on 23 percent of their monthly salary.

After the members' data had been separated according to active and dormant members, a simulation study was done to investigate the adequacy of the retirement benefits. The definition of adequacy is very controversial and may differ in perception among the members. Therefore, the benchmark used to measure adequacy is the principle laid down through the International Labour Organisation (ILO) Convention No.102, on retirement benefits. According to the convention, "a person should receive an annuity of not less than 40 percent of his last drawn salary per month, as minimum replacement income upon retirement"<sup>1</sup>(ILO 1952)<sup>1</sup>. The annuity payment was computed using the actuarial formula. This formula is widely use by the insurance companies and social security organisations to calculate annuity payment. The formula is stipulated as follows:

$$\text{Annuity formula} = \frac{S \times i \times (1 + i)^t}{12 [(1 + i)^t - 1]} \quad (1)$$

Where,<sup>4</sup>

S = The average savings at the age of 54 years

i = Dividend rate

t = Length of payment

In this computation the following assumptions were also made as stated below.

- 1) The dividend rate is assumed as 3.5 percent per annum and it is the real rate of dividend after discounting the inflation factor.
- 2) It is assumed that the members have all withdrawn 40 percent of their contribution before 54 years leaving only 60 percent of their contributions.
- 3) The average life expectancy is 75 years, therefore the annuity payment is for a period of 20 years after retirement.
- 4) The retirement age is 55 years.

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<sup>1</sup> International Labour Organisation (1952), International Conference on Social Security Minimum Standards No.102, Geneva, ILO.

### 3.4 DATA ANALYSIS

The data was analysed through simple descriptive statistics, such as percentages. However, the annuity payment was computed using the Microsoft Excel software.