CHAPTER III
RESEARCH METHODOLOGY

This chapter describes the sample of the study, data sources and data analysis techniques.

SAMPLE
There are 35 licensed local manufacturers that produce both schedule poisons and non-poisons in Malaysia. Since the aim of the study is to develop an ideal product portfolio for a local pharmaceutical company, manufacturers that have a comprehensive product portfolio form the sampling frame. A sample of seven local manufacturers were selected. They include the top four manufacturers namely Pharmmalaysia Berhad, Hovid Pharmacy Sdn. Bhd., Upfa Corporation (M) Sdn. Bhd., and Xepa Soul Pattinson (M) Sdn Bhd. The remaining are made up of Kumpulan Y.S.P. (M) Sdn. Bhd., Ranbaxy (M) Sdn. Bhd. and Setron (M) Sdn. Bhd., all of which are emerging as major companies.

DATA SOURCES
To develop an ideal product portfolio secondary data have been collected from several sources. These include price lists of local pharmaceutical manufacturers as well as local and international publications. The main variable of the study is the products in the portfolios, which were extracted from the price lists of the sample of seven local pharmaceutical companies. Recent sales performance of
products by therapeutic category of multinational pharmaceutical organizations in Malaysia was extracted from MPTMA 20th Turnover Survey of Pharmaceutical Business, MPTMA Basic Industry Data 1994. Top five therapeutic classes with the largest market share for 1994 in Malaysia was retrieved from IMS Asia (1989) Pte Ltd - Newsletter, March 1995. Information regarding Ten Principal Causes of Hospitalization and Deaths for the past five years, 1990-1994 were obtained from the Information and Documentation Unit, Ministry of Health. The IMS Drug Monitor Report January-October 1995 of the World Sales of Pharmaceutical Products by therapeutic category was obtained from IMS International. World Health Organisation document provided the disease patterns of the world.

DATA ANALYSIS

The data were analyzed using percentages to determine market shares and growth rates of the various therapeutic categories for the sample of the local companies and the product portfolio of the industry. Due to the large number of products in the various companies, the products were first classified under several subcategories based on their mechanism of action such as antacids, antihypertensives and analgesics using the Drug Index of Malaysia and Singapore or DIMS (MIMS Malaysia, 1995) and then grouped into major therapeutic categories - viz. cardiovascular, alimentary/metabolism, central nervous system, anti-infectives, respiratory, musculoskeletal, genito-urinary, dermatologicals, sensory organs, hormones and vitamins. The product portfolios
were then presented in percentages to determine the market shares of each therapeutic category.

In the case of multinational pharmaceutical organizations, the market shares and growth rates in percentages were calculated to facilitate identification of outstanding therapeutic categories that exhibit large market shares and high growth rates.

The data are then used to identify clear distinguishing therapeutic categories with a potential of a star, a cash cow or a child with a potential to develop into a star. An ideal product portfolio for a local pharmaceutical organization is subsequently developed.