## CHAPTER I

#### INTRODUCTION

The international health industry is going through numerous changes that are brought about by factors such as managed care, increased globalization, governmental pressures of cost-containment, declining profit-margin and regulatory complexities. Malaysia which has recorded an unprecedented average growth rate of about 8% over 1985-1995 is already experiencing a growth rate of 13% in the pharmaceutical sector in 1994 (IMS Newsletter June 1995).

There is a lack of accurate market intelligence on the pharmaceutical industry in Malaysia. The only main source of market information of the industry is the IMS audit which is expensive and beyond the budgets of most local manufacturers. Thus most of the product portfolio decisions are made by the top management without any solid research data to back them up. Moreover, there are very few product managers in most marketing teams of local pharmaceutical companies.

Thus a good product portfolio would enable managers to know their portfolio options and understand the risks associated with each option, select a portfolio strategy that is in line with their corporate strategy and objectives and lay out an action plan for the successful implementation and achievement of these objectives.

The capital investment required to set up a pharmaceutical plant is very high and the payback period is rather long. Local manufacturers constantly undergo extensive, costly, time consuming and complex drug regulations and compliance inspections (carried out by the Drug Control Authorities) of facilities. There exists intense rivalry amongst the local firms to retain and if possible, to increase the size of their market share. Besides meeting regularly at a common forum, that is, the Malaysian Organization of Pharmaceutical Industries (MOPI) and tackling the problems encountered by the industry with the drug regulatory authorities, customs and revenue departments, and the Ministry of International Trade and Industry, interaction among the local manufacturers is minimal

# CURRENT PRODUCT PORTFOLIO OF LOCAL PHARMACEUTICAL COMPANIES

This study is targeted at the needs of the local pharmaceutical organizations which manufacture drugs that have gone off-patent. It would be confined only to generic products (clones of the original product). The products in the portfolio of a pharmaceutical company can be broadly classified into 11 major therapeutic (disease) categories as follows:-

1.	Cardiovascular	Heart and related diseases
2.	Alimentary	Conditions associated with the stomach and intesting (digestive system)
_		intestine (digestive system)
3.	Metabolism	Processes in the body that are involved in the
		wear and tear of tissues and normal functioning
		of the body systems.
4.	Central nervous system	Conditions associated with the brain and the
		nervous system.
5.	Anti-infectives	Drugs that treat bacteria, fungi and viral infections.

6.	Respiratory	Conditions related to the breathing process and organs involved in it.
7.	Genito-urinary	Ailments of the reproductive and urinary system.
8.	Dermatologicals	Skin preparations.
9.	Cytostatics	Drugs that arrest the growth of cancerous cells.
10.	Musculoskeletal	Ailments of the muscle and bones
11.	Hormones	Secretions produced in the tubeless glands that are secreted directly into the blood. Hormones are given externally in the form of drugs when the body produces lower than normal blood levels, as in contraception and to treat certain serious ailments, such as severe asthma and inflammatory conditions.
12.	Vitamins	Substances present in certain food stuffs and essential for health and normal growth.

Each main therapeutic category can be further subdivided according to the specific mode of action, e.g. anti-infectives can be divided further into antibiotics (drugs that treat bacterial/fungal infections), antibacterials (drugs used in the treatment of bacterial infections), antifungals (drugs used in fungal infections), antiviral (drugs that treat viral infection). To date there are more than 5000 different medicinal chemicals (Michael Barber and Associates, International Consultancy, September 1994 -Script magazine) to treat the numerous diseases prevalent. In order to minimize erroneous past decisions, loss of time, money and frustration, it is imperative that decision makers adopt strategic portfolio planning and management

Product portfolio planning becomes a vital starting point especially due to the present complex worldwide regulatory environment, increased pressure to improve the overall return on investment and increased globalization. It would

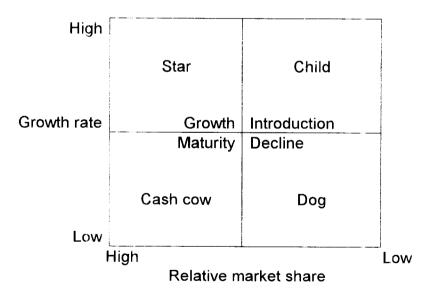
sharpen senior manager's focus on issues such as prioritizing investment across therapeutic areas and allocation of scarce resources to product development.

## PORTFOLIO EVALUATION

Two popular portfolio evaluation models are the Boston Consulting Group model growth-share matrix and the General Electric model McKinsey's market attractiveness / business position model. Both models provide managers with analytical tools for classifying products by the profit potential of the products.

The Boston Box in Figure 1 illustrates the phases of a pharmaceutical product life cycle.

Figure 1 - The 'Boston Box' and the Life Cycle of a Pharmaceutical Product.



Source: Kotler Philip, Marketing Management, p. 71.

The vertical axis represents the annual growth rate ranging from low to high whilst the horizontal axis represents the market share of a product relative to that of the largest competitor, which also has the same range (i.e. low - high).

A pharmaceutical product goes through four phases throughout its life cycle: Child or question marks are products that have a low market share in high growth situations. Most products start off as a question mark during its introduction phase in which there is already a market leader. If a question mark is successful it becomes a star. A star is a market leader in a high growth market with a high market share, requiring substantial funds. Stars are usually profitable and become the future cash cows of the company. Cash cows generate more cash than is required to maintain them since they represent products with low growth rate but high market share in their maturity phase. Dogs describe products in the decline stage of their life cycle and have weak market shares in low growth markets. They typically generate low profits or losses.

Once all the products are plotted in the growth-share matrix, the manager can determine whether the product portfolio is healthy and balanced. An unbalanced portfolio would have too many dogs or question marks and/or too few stars and cash cows. A product mix should be balanced so that there are enough cash cows to support potential stars and enough stars to ensure future growth. The next task is to determine what objectives, strategy and budget to assign to each product.

Product portfolio analysis should be periodically reviewed to evaluate past decisions and avoid previous pitfalls as well as to ensure that future growth objectives are achieved through a balanced product portfolio of cash generating and cash using products. The Boston box has received impetus from the PIMS study (Buzzell and Gale 1987) which found a very strong relationship between market share and return on investment.

This study would identify potential therapeutic (disease) categories of products that have the highest market share with high growth rates to determine an ideal product portfolio for a local pharmaceutical manufacturer in Malaysia based on the Boston Consulting group model.

## **OBJECTIVES OF THE STUDY**

The purpose of this study is to identify products that are or have the potential of becoming stars and cash cows, and to devise an ideal product portfolio for a pharmaceutical manufacturer in Malaysia to ensure sustainable and profitable growth.

The objectives of this study are:

- to evaluate the product portfolios of the major local pharmaceutical companies,
- to examine the sales trends of products of multinational pharmaceutical companies in Malaysia,

- to identify the disease patterns in the Malaysian healthcare sector for the past five years
- 4. to examine the sales trends of pharmaceutical products in the world market and to identify disease patterns in the world.
- 5. to identify clear, distinguishing trends in therapeutic (disease) segments.

#### IMPORTANCE OF THE STUDY

An ideal product portfolio would enable managers to know their portfolio options and understand the risks associated with each option, select a portfolio strategy that is in line with their corporate strategy and objective and lay out an action plan for successful implementation and achievement of objectives.

It would help to identify the growth and profitability of therapeutic areas as well as to evaluate corporate goals, assessing both the internal and external environment, analyze and evaluate product portfolio options and ultimately select one that has a strategic fit with the organization's objectives.

Information on the present and future stars and cash cows would enable managers to recognize growth options and classify products according to their profit potential, to balance low risk and high risk products, maximize the value of their product portfolio and ensure optimal resource allocation across product categories.

Managers would be able to identify dogs and child that have no future market potential and may wish to eliminate them. Products that are attractive and provide good returns or meet the growth objectives of the company would be maintained.