

## **4. External Environment: General Environment**

Analysis of external environment identifies opportunities and threats to an industry or a company. An opportunity is a condition in the general environment that may help a company to achieve strategic competitiveness. A threat is a condition in the general environment that may hinder a company's efforts to achieve strategic competitiveness (Hitt). It can be broken down into 2 parts: general environment and industry analysis. This chapter analyses the general environment. Industry analysis is the subject of the next chapter.

The general environment composed of elements in the broader society that influence an industry and the firms within it. They can be grouped into six environmental segments: demographic, economic, political/legal, sociocultural, technological and global segment.

### **4.1 Economic Environment**

The economic environment refers to the nature and direction of the economy in which a firm (or an industry) competes or may compete. It is a very important segment in the general environment. The communications sector together with transport and storage contributed 8.1% of Malaysia's GDP in 1999, and 8% of GDP in 2000. This sector created 434,000 jobs out of the total 8,928,000 jobs in the same year (Economic Report 2000/2001 pp. 4.12, li).

Telecommunications has traditionally been viewed as an essential public utility.

Economies of scale, combined with political (including military) sensitivity, created high entry barriers. It was believed to be a natural monopoly, an essential public good that

government should provide in a non-commercial mode. Within this environment, development focused primarily on the extension of standard service, the building of basic networks, and improvements in the performance of the operating entities.

#### **4.1.1 Declining Cost of Technology**

In the last twenty years, the process of industrial development (e.g. integrated microcircuits, satellites, optical transmission) has reached a turning point and has become a true technological and economic revolution (Nulty). Cost of basic network components (e.g. switches, cables, microwave links, etc.) and alternative facilities such as cellular radio, small satellite terminals, etc have plummeted per bit transmitted. Technology has made it cheaper and easier for customers and competitors to communicate by means other than the traditional public switched telephone network (PSTN).

Relative cost of processing and transmitting information, as distinct from any other factor of production, has declined steeply. This has stimulated its use in more and more areas.

E.g. global publishing networks permit a book or newspaper article written in one country to be mocked up in a second, typeset by computer in a third, and then transmitted by satellite for printing anywhere in the world.

As a result of the technology and cost revolution, the traditionally high barrier of entry of the telecommunication industry has been lowered significantly.

#### **4.1.2 Commitment of Malaysia Government to GATS**

At the start of the Uruguay Round of the GATT talks in 1986, developing countries agreed to enter into negotiations for trade in services on condition that the exercise should be kept separate from those for merchandise trade and that the interests of developing

countries be given due consideration. Because of the tremendous progress achieved in the group that negotiated on services trade, the General Agreement on Trade in Services (GATS) has emerged as one the most successful accords completed within the World Trade Organisation (WTO) (Sieh 2000).

The GATS forms part and parcel of the WTO which has come into effect on 1 January 1995. The Malaysian Government has not hesitated to keep pace with the new developments on the development of services activities. It has agreed to commit a package of services industries under its obligation to the GATS. Communication service is one of the industries in the package. Please refer to Appendix B for the details of the specific services offered by the Malaysian Government.

The impact of GATS on the Malaysian economy is expected to be substantial because the domestic services sector, which contributes about 45% of the GDP, is likely to grow at a rate between 9% to 10% annually. Services share in the GDP is expected to get larger as the economy reaches a higher level of development. Service sector is important to the Malaysian economy because it has consistently registered large balance of payment deficits. Since 1987, on average, the services deficit has been about 4% of the GDP annually or in value terms, about RM12 billion.

The services trade flow is unbalanced between Developed and Developing Countries because services sectors in Developing Countries are still in infancy while those in Developed ones are already mature. Developed countries have always enjoyed services trade surpluses while Developing countries have suffered deficits.

GATS liberalisation is expected to significantly influence the structure of the domestic communications industry. With lower barriers to market, more firms will enter the industry resulting in higher number of producers and supporting industries. Foreign producers prefer to establish links with large domestic firms in order to take advantage of their market share.

The telecommunications industry is expected to generate a new source of economic growth for Malaysia because with rising income, demand for telecommunication services is likely to increase. This is in line with the forecast of the year 2001 Economic Report: “In respect of the communications services industry, demand for telecommunications services remains favourable. Number of cell phone subscribers increased to 3.6 million at end-June 2000 (end-Jun 1999: 2.7 mil). ... Fixed lines operated by TMB more than 95% of total fixed line subscribers. End-August number of subscriber increased by 5.5% to 4.5 million (end-Aug 99, 4.3 mil)”. (Economic Report 2000/2001 p69)

## **4.2 Technology Environment**

In the last twenty years, the process of industrial development (e.g. integrated microcircuits, satellites, optical transmission) has reached a turning point and has become a true technological and economic revolution. (Nulty 1989)

Database technology allows organization of complex data and distribution of information. The cost of collecting, processing, storing, retrieving and sharing of information is continually going down. Telecommunications technology and networks increasingly provide fast transmission of all sources of data, including voice, written communications,

and video information. In addition, growth in Internet usage eases the retrieval, sharing and application of data/information.

As information and communication techniques are extended, they have been continuously adapted to the specific needs of widely differing activities. The result has been a proliferation of new services. Development in software, electronic database, modern switching and signalling techniques has generated new services. As more and more transactions have been shifted to electronic media, the superior intrinsic abilities and lower cost of these systems have, in turn, made their use more widespread. The most explosive growth is attributed to communication with and among computers.

The technological revolution has multiplied the available forms of telecommunications access and services apart from drastically altered their costs. New technologies such as GPRS, EDGE and UMTS; and the corresponding services are already discussed in Literature Review.

### **4.3 Global Segment**

The world economy has undergone a radical transformation in the last two decades.

Geographical and cultural distances have shrunk significantly with the advent of airplanes, fax machines, global computer and telephone linkups, and world TV satellite broadcasting. Globalization gives more opportunities and all firms face increasing global competition.

The three critical global markets that frequently referred to as the triad are North America, Europe, Japan & NICs/SEA. At the same time that global markets are expanding,

regional trade blocs are emerging, e.g. NAFTA, EU, AFTA, etc. Protections to local industries such as the use of tariffs, quota and non-tariff barriers of different countries are gradually removed by more and more countries joining WTO. This creates opportunities to firms to export their products and services. There is growing interdependence of economic performance among countries in the world.

Firms should be aware of the different cultural and institutional attributes, and the important political events affecting stability and economic performance of countries, such as the 9/11 terrorist attack which had shaken the world and affected the flight industry enormously. The attack worsens the economy downturn in the US, and it is possible for it to affect the Asian economies, e.g. causing slower growth rates and subsequent decreases in demand in Asia.

Euro has officially started to replace the currency of more than ten countries in the European countries beginning 1 Jan 2002. This might have some impact to the pricing of the product of some European firms.

#### **4.4 Political/Legal Segment**

Malaysia's fundamental legislation in Telecommunications is based on "Telecommunications Act of 1950". This Act provides the telecommunications legal framework, and sets out the exclusive privilege of the Malaysian government to establish, maintain, and operate telecommunications. Another important law is "Telecommunications Services (Successor Company) Act of 1985". This Act provides for the vesting of property, rights and liabilities of the government of Malaysia relating to telecommunications services in a successor company (RITE's First Research Department).

#### **4.4.1 Introducing Liberalisation**

During the 1970s and early 1980s, a number of measures had been implemented which allowed private firms to enter the telecommunications market. These included the Uniphone CCB (Coin Collection Box) franchise, a decision in the late 1970s to permit the use of Private Branch Exchanges (PBXs), and the turnkey contracts (Kenneth). In June 1983, the Ministry (Ministry of energy, Posts, and Telecommunications) announced that from July 1, telephones and teleprinters would be provided by the private sector. Almost immediately there was a rush among telecommunications firms to enter the market. Sapura Holdings began to market US manufactured “Mickey Mouse” telephones and other special feature and novelty equipment. Electcoms began the sale of all types of telecommunications equipment. Major Malaysia conglomerates not formerly operating in telecommunications, such as Sime Darby, also established subsidiaries to market terminal equipment.

Foreign firms moved quickly to enter or expand their presence in the market. Many of these sought partnerships with Malaysian firms in order to gain access to the market. Gaining momentum, within two years, liberalisation was extended to some value added services markets as well.

The first service in which liberalisation was evident was radio paging. In October 1985, the first market entrant was announced. A new firm called Komtel had received a license to provide radio paging. Komtel was 60% owned by Sapura Holdings. Four months later, additional licenses had been provided to 3 other firms: Electcoms Bumi Engineering,

Kilatcom (a subsidiary of Karm Ikram's Binafon), and Telesistem, the firm owned by former Telecoms Director-General Tan Sri Hassan Wahab (Kenneth).

A second area for enhanced competition has been cellular communications. It provided JTM a success when its 450 MHz ATUR system was introduced in 1985.

#### **4.4.2 Privatisation**

Effective 1 Jan 1987, the telecommunications scene in Malaysia changed in the legal and corporate sense with the transfer of the telecommunications operating functions to Syarikat Telekom Malaysia (now Telekom Malaysia Bhd, or TMB), a wholly owned government company incorporated in accordance with the Company Act of Malaysia. The privatisation of the telecommunications operating business is the single largest privatisation exercise undertaken to date (1989) by the Malaysian government. Because telecommunications has a pervasive influence on individuals, corporations, and the government, the performance of this company has attracted wide attention and critical comment (Isahak)

Before 1 Jan 1987, the telecommunications business in Malaysia had been operated by Jabatan Telekom Malaysia (JTM), a government department reporting to the Ministry of energy, Posts, and Telecommunications. JTM, being a government department, was also entrusted with certain regulatory functions covering the telecommunications business in Malaysia.



The objectives of the privatisation were to reduce the financial and administrative burden of the government and simultaneously reduce the size and presence of the public sector in the economy, to promote competition and increase efficiency and productivity, to stimulate private entrepreneurship and promote economic growth, and to achieve the objectives of the new economic policy (NEP).

In a general sense, the government, the users of the services, and the general public expect substantial improvement in the quality and character of customer services and in the manner in which the personnel regard and perform their functions.

The government's objective of privatisation was to introduce competition. However, looking at the market share TMB has in the fixed line market, i.e. more than 95%, it is obvious that the fixed line market is still monopolised by TMB.

Kenneth (1990) suggested that the Malaysian telecommunications industry is driven by political more than economic forces. Hence, it is important for operators in the industry to scan the political segment.

#### **4.5 Demographic Segment**

Refer to Table 2, as of September 2001, the Malaysian population is about 23.4 million with a population growth rate of 2.40%. The GDP/capita is US\$8,513, with GDP growth of 7.70%. The GNP/capita is US\$3,248. People/TV is 4.7 but people/telephone is slightly higher at 5. The number of homes with TV is 3.39 million and the number of

dial-up Internet subscribers is 1.85 million. The total number of fixed-line subscriber is 4.69 million.

The population density is higher in cities than in rural areas.

#### **4.6 Sociocultural Segment**

Malaysia is a multi-racial multi-cultural country. Islam is the national religion, and has strong influence on the Malays, who has the majority of the population share. Traditions of different ethnics groups are quite well preserved.

Due to the rapid development of the country and Vision 2020, there is increasing number of women joining the workforce.

In general, urban residents have higher awareness of health, fitness and work life quality issues than rural residents.

#### **4.7 Summary of General Environment Analysis**

From the general environment analysis, it is found that the telecommunications industry has moved from being a collection of largely government owned and financed monopoly carriers to an increasingly private sector competitive business. The management of the business has become like that of any other commercial business - to deliver satisfaction to customers and to shareholders. This provides opportunity for new entrants to enter the market, compete with incumbent, bring down prices and create value to customers while earning good returns. Providers can take the opportunity to maximise profit as there is less regulations governing the industry and less social responsibility as a result of deregulation and liberalisation. However, more entrants increase the competitiveness of the industry, and are a threat to incumbent operators.

Merging communications and computer technologies have sparked innovations that are transforming global and local activities of all sorts. No economic, political, or social entity can be exempted from the influence of the telecommunications and IT revolution. The lowering of cost of equipment and progress in globalisation have resulted in the lowering of entry barrier. The industry is getting more and more competitive.

Availability of high bandwidth technologies such as GPRS and UMTS, will shift the competition model, from facilities competition to service competition. This was predicted by Neumann as early as 1989 in his paper "Models of Service Competition in Telecommunications". While network carriers provide their services on their own facilities, service providers may use leased facilities to provide services and cannibalise portion of the market of the carriers. This model can avoid wasteful duplication of facilities and at the same time promote competition in the whole field of telecommunications and value-added services (VAS).

The next chapter analyses the industry structure of the wireless communications industry.