Telecommunications: Fueling Asia Pacific Growth?

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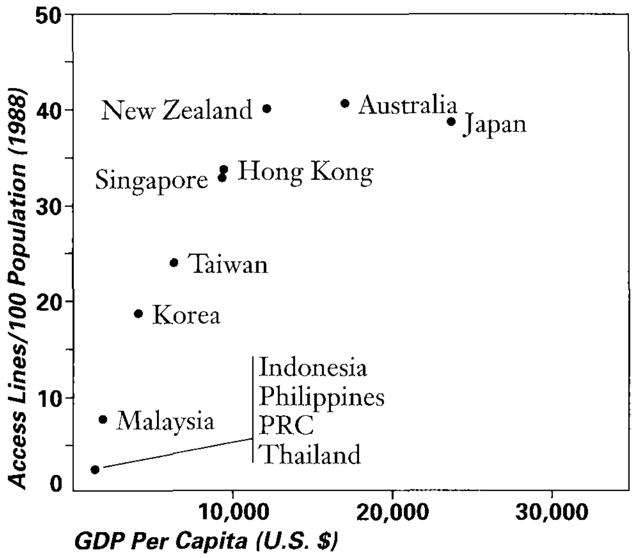
If information is the oxygen of modern economic development, then telecommunications provides the essential circulatory system. A health check on the state of Asia Pacific telecommunications today would reveal both bad news and good news.

The bad news is that telecommunications today does not foster economic integration between the countries of the region. In Asia Pacific, communications services are not nearly as homogeneous as in the European or North American trading regions. There are wide disparities in services among the developed, the newly industrialised, and the developing countries, as reflected in the penetration of basic telephone service (Figure 1). The good news is that regional governments recognise this problem and are trying to do something about it. But what can they do? Any cure depends on an accurate diagnosis, and an accurate diagnosis is complicated by the complex nature of the symptoms.

Figure 1

Basic Telephone Service Penetration and GDP



The symptoms vary. In the advanced countries of the region, communications requirements are expanding from widespread basic telephony service to include the advanced business services – data services of various speeds, electronic messaging, graphics and image transmission, networking and mobile services – that will support the next phases of economic growth. Monopolistic public utilities cannot provide these new services as effectively as they can basic service. The best way to stimulate and regulate their development is to establish open, competitive markets that allow investors to take risks and customers to make choices. The cure is for governments of developed Asia Pacific countries to create the appropriate regulatory frameworks for open competition and to encourage public telecommunications utilities to reorganise to compete fairly and effectively. For these countries, the issues are primarily economic and political rather than technical.

In contrast, in the less-developed countries, telecommunications networks are under enormous strain. Their inability to meet the demand even for basic service is a serious brake on economic development, which depends on good communications within the region. They need to make substantial new investment in their telecommunications networks. While this investment is now available, efforts to increase it are hampered by restrictive bureaucracy and weak management. The cure is for these governments to provide the telecommunications corporations with the independence to organise themselves and operate in a manner that can support rapid growth. The mechanisms for creating the necessary degrees of independence may vary. For developing countries, the symptoms are most pronounced and the cures are often difficult to administer. However, for developed and developing countries alike, the medicines to effect the cures are available and have been applied successfully elsewhere. They consist of varying doses of liberalisation, reregulation, and restructuring.

The Regional Economy and Telecommunications

Economic developments will have a dramatic effect on the need for telecommunications services in the region. Foremost among these is the growing interdependence among Asia Pacific countries. As discussed elsewhere in this issue of *Prism*, Japan will expand its leadership role as Japanese investment continues to grow. Australia and New Zealand, too, will increase their trading relationships with the other Asia Pacific nations. The „four tigers“ – Hong Kong, Korea, Singapore, and Taiwan – will continue their rapid economic growth. These economies will also shift from basic industries and assembly services to higher-value-added, service-oriented industries with local product development and manufacturing. Leading this growth will be indigenous multinationals such as Acer/Multitech, Goldstar, Samsung, and Singapore Technologies.

The less-developed nations, such as Thailand, the Philippines, Indonesia, and possibly China, will benefit in turn from the growth taking place in the more advanced countries in the region. As other countries move up to higher-value-added enterprises, more investment pours into these countries, expanding their role as manufacturing locations. Thailand, for example, is experiencing an economic boom as a result of considerable foreign investment, together with its own efforts to develop tourism and indigenous industry.

The developed and newly industrialized economies will need advanced business services to support the growth of the more service-oriented and higher-value-added manufacturing industries. Penetration of residential telephony will also increase to meet the social aspirations of increasingly wealthy populations, and to serve increased numbers of families as younger people start to own their own accommodations.

International call traffic will rise substantially to support the growing trading relationships and interdependence among the member countries of the Asia Pacific region. It will also grow to support the dispersal of related family units, not only throughout the region but also to North America and Europe. International call traffic within the region, and from the region to other key regions, is expected to grow more than 25 percent a year in real terms. In the less-developed nations, the need for basic communications services will grow enormously to support the rapid increase in foreign investments.

Liberalisation of Telecommunications Services

There are several areas and degrees of liberalisation. Most of the Asia Pacific governments appreciate the economic benefit of liberalising the market for customer-premises equipment to allow open competition in the equipment attached to the telecommunications network – telephone sets, computer terminals, facsimile machines, PABXs, and so on. Appropriate regulation has been enacted to create free markets in the provision of equipment and related services.

Many of the region’s governments also appreciate the need to encourage free (or partial) competition in the provision of new advanced services and mobile services. However, in this area the absence of specific regulations that define the limits of competition makes the whole situation very fuzzy. As a result, the monopoly provider of telecommunications services (which is often, de facto, the regulator) really controls who can or cannot compete with it, and to what extent. Clearly, this is a very ineffective form of liberalisation, and the situation must be clarified. Furthermore, few regional governments yet appreciate the benefits of competition in the provision of basic telephony services. Currently, efforts toward liberalisation vary considerably from country to country.

Japan. Within the region, only Japan has established competition in the provision of basic telephony services, the main source of revenue for most telecommunications corporations today. Competition in the provision of basic telephony services is of great relevance to advanced countries with fully penetrated networks: it leads to production efficiencies and redistribution of prices in line with costs.

Overall, Japan has set the pace in telecommunications liberalisation in the region. The telecommunications services industry was liberalised in April 1985. Since then, more than 300 new carriers have entered this potentially lucrative market, which is expected to grow from $40 billion in 1988 to $50 billion in 1992. The carriers divide into two types. Type 1 carriers provide a full range of public services with their own circuits. Type 2 carriers provide services using the circuits of Type 1 carriers. NTT’s monopoly on domestic long-distance calls has now been challenged by Daini-Denden, Inc. (DDI), Japan Telecom Co. (JTC), and Teleway Japan Corp. (TJC). But competition has been slow to develop, and the government is again attempting an AT&T-style breakup of NTT. However, this is unlikely to happen soon, as NTT’s management and union strongly oppose it.

In international services, Kokusai Denshin Denwa (KDD) faces competition from International Telecom Japan (ITJ), formed by a group that includes Mitsubishi and Mitsui, and from International Data Communications (IDC), whose members include C. Itoh, Toyota Motor, the United Kingdom’s Cable and Wireless, and Pacific Telesis of the United States. Both are offering international calls at rates 23 percent below KDD’s. KDD has also reduced its rates, which were among the highest in the world.

Hong Kong. In Hong Kong, the franchise for public domestic switched services is held by Hong Kong Telephone and the licence for international telecommunications by Cable and Wireless (Hong Kong). Both companies are owned by the Hong Kong Telecom Group, which is in turn owned 75 percent by Cable and Wireless PLC of the United Kingdom. The franchise expires in 1995 and the licence in 2006. The Hong Kong government is positioning itself for possible competition in basic services in the future. The government has just awarded to Hong Kong Cable Communications, a joint-venture company in which U.S. West has a 2 5 percent interest, the licence to install a cable TV service and a competing telecommunications network. The network is to provide competition in nonfranchised services, but will likely be allowed to compete in basic services after 1995.

In Hong Kong, customer equipment, computer services, mobile radio, paging, and value-added services are not franchised and competition is intense. As a result, Hong Kong has the most dense usage of mobile telephones in the region and a vibrant market for equipment and services, at low prices.

Taiwan. In Taiwan, partial deregulation of the telecommunications network took effect in the middle of 1989, when the government announced that private Taiwanese firms could offer value-added networks. The government will still control basic services such as telephone, telegraph and telex, and packet switching. The existing telecommunications law, which is several decades old, prohibits foreign firms from providing telecommunications services, but this is under review.

South Korea. In South Korea, the state-owned Korea Telecommunications Authority (KTA) operates the domestic and international voice services, while value-added services are now run by Data Communications Corp. (DACOM), in which the government and KTA have stakes. Next year, KTA will dispose of its shareholding in DACOM, and both companies will be able to compete for each other’s markets, thus creating two telecom companies. The United States wants the value-added sector opened to foreign firms; the Communications Ministry says this will take two or three years to organise.

Malaysia and Singapore. The equipment markets in both Malaysia and Singapore have been formally liberalised. Malaysia has gone further, liberalising the provision of paging and mobile services. The privatisation of the national telecommunications corporation, Syarikat Telecom Malaysia, suggests that competition in advanced and basic services would be encouraged by the government if suitable competitors were to emerge. Although competition with Singapore Telecom has not been encouraged, the government’s position is likely to change now that the privatisation of Singapore Telecom has been announced.

Australia and New Zealand. The New Zealand government is encouraging a free-for-all in telecommunications, while the Australian government is moving more cautiously. New Zealand Telecom has been incorporated and substantially restructured into several autonomous regional operating units. Australia Telecom underwent a major reorganisation during 1988 to increase its competitiveness.

Thailand and Indonesia. In Thailand and Indonesia, national telecommunications is handled by government-owned corporations struggling with long waiting lists, unfulfilled demand for service, traffic congestion, poor service, and a lack of both technical and managerial resources. International communications is handled in Indonesia by a profitable, progressive corporation, and in Thailand by the Communications Authority of Thailand (CAT), a highly bureaucratic organization whose concerns include postal service problems. In both countries, difficulties at the interface between domestic and international communications reduce the overall quality of international call service. Liberalisation policy is very unclear, but competition has been introduced in certain areas, such as mobile radio.

Key Questions for Liberalisation

There is no move to harmonise telecommunications policy throughout the region. Neither is there any regulatory mechanism similar to the Federal Communications Commission in the United States or the Commission in the European Community. In determining the right degree of liberalisation and its timing, each government must take into account its own imperatives. Key questions to be asked are:

• *Where will liberalisation yield the greatest economic benefit?* Up to a certain point, the greater the extent of liberalisation, the greater the economic benefit. However, there is a strong case for excluding the basic network from full and open competition in developing countries to help meet goals such as universal service coverage.

• *Where are the bottlenecks in meeting demand, and how will liberalisation alleviate those bottlenecks?*

• *What effect will liberalisation have on the existing telecommunications industry?* Will it make the industry more competitive or will it serve to sweep it away? Usually, liberalisation increases competitiveness, but some local operations (e.g., manufacturing) may not prove viable if they cannot adapt. The goal of liberalisation is not competitiveness, but expanded and improved telecom service at affordable prices – and at less capital cost to the government.

Reregulation

The telecommunications laws in most Asia Pacific countries are out of date; they have not been revised fully to cope with the competitive implications of greater liberalisation. Reregulation (revision of existing regulation) is needed to ensure that competition takes place under clear ground rules and in the best interests of economic and social development. Since telecommunications is a fast-moving business, an efficient regulatory body is needed to interpret the regulations fairly as competition and unforeseen issues emerge. Regulation – and, in practice, the regulator – needs to define such issues as:

• The boundary between monopoly and competitive services

• The rights of competitive carriers to interconnect with the dominant carrier

• Revenue sharing between interconnecting carriers

• Fair trading questions (To what extent can dominant carriers respond without unduly exploiting their market position? At what point is a market segment sufficiently competitive so that all restrictions, apart from the legal ones, can be removed?)

• Access to facilities by competitive carriers

• Tariff reviews of noncompetitive services

• Quality of service

The reformulation of the regulatory framework is not as well defined in the Asia Pacific countries, as, for example, in the United States and the United Kingdom. Without a clear regulatory framework, it is difficult for potential competitors to understand the ground rules and, therefore, difficult for effective competition to develop. The Hong Kong government is expected to upgrade its regulatory framework with the introduction of the second telecommunications network; other countries must follow suit.

Restructuring the Industry

Most of Asia Pacific's telecommunications services have been provided by organizations that are, or were until recently, government-owned monopolies. Liberalisation of the industry will require its restructuring, including clarification of the structure and role of these corporations. The necessary changes are summarized in Figure 2 and discussed below.

Figure 2

Structural Changes Required for Liberalisation

Close relation to government	Arm's-length relation
Bureaucratic	Commercial
Functionally oriented	Market-oriented
Facility-expansion focus	Business-management focus
Source of employment	Highly automated; lean and mean
Narrowly defined jobs	Broadly based jobs
Highly decentralised operations and highly centralised support services	Centrally determined architecture, decentralised business management, and decentralised support services

The national telecommunications corporations must move from being, in effect, arms of government, to having arm's-length relationships with government. In the advanced countries, this shift is needed to ensure that the ground rules necessary to encourage competition and private management apply explicitly to the national carrier. In developing countries, the telecommunications organisations must break away from the bureaucracy of government so that they can raise the necessary investment, acquire the necessary skills, and manage their operations in a manner that supports rapid network growth.

Much restructuring is in process. The government of Japan has privatised its national carrier, NTT. Hong Kong Telephone has always been a private-sector corporation. The governments of Malaysia, New Zealand, and Singapore, have annouced their intention to privatise (i.e., sell stock in) their national telecommunications corporations. The governments of Thailand and Taiwan are thinking about corporatisation and privatisation.

Of course, privatisation is not the sole prerequisite of an „arm's-length relationship," as can be seen in the experience of the privately owned Philippines Long Distance Telephone Company under the Marcos regime. An appropriate regulatory framework must go hand-in-hand with privatisation.

A key element in the process of corporatisation and privatisation is the conversion of the national carrier's mindset from bureaucratic to commercial, and of its organisation from functional to market-oriented. Advanced telecommunications corporations must shift their focus from a solely functional orientation, in which the primary goal is facility expansion, to a marketing orientation geared to meeting the needs of particular customer groups, such as individual industry sectors or residential customers. Typically, a shift of this kind generates a new corporate structure based on market-oriented business units (Figure 3). Telecom corporations must clearly identify these business units and give their management teams full responsibility for their operations, including planning, financing, marketing, provisioning, and human resource management. For many business unit managers, this broad responsibility represents a dramatic change from their role in earlier bureaucratic organisations in which they oversaw only single functions.

The telecommunications corporations of Australia, Singapore, and Malaysia have already adopted these business unit structures. In addition, NTT in Japan and KTA in Korea have special business units to provide data and VANs services.

Figure 3

Typical Telecommunications Business Units

Business communications

Residential communications

National mobile communications

International mobile communications

Pay-station services

Directory services

Value-added services

Turnkey projects

Consultancy

Equipment sales and services

Whereas business unit restructuring is essential in the more-developed countries, telecommunications organizations in less-developed countries should remain focused on facility expansion, with strong emphasis on project management.

Conclusion

A dose of liberalisation, reregulation, and restructuring appropriate to each country will help to ensure that telecommunications plays its full role in supporting regional economic development. For governments in the region, the challenge is to identify the correct dose and then take the medicine. For local telecommunications firms, the challenge is to restructure themselves to become more competitive so that they earn their market shares, rather than having them awarded by government. And for companies doing business in the Asia Pacific region, the opportunities to provide services and equipment will grow enormously as governments become open and receptive to more and more players having roles in their nations' communications industries.

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