

info

ISSN 1463-6697

The following article was published in **info** Vol 2, No 3, June 2000

© 2000 Camford Publishing Ltd

For more information:

<http://www.camfordpublishing.com>

conditions of use

Single copies of this article may be printed for personal use as allowed by national copyright laws. Permission of the publisher/copyright holder is required for all other uses.

article:

distinguishing between industry policy and 'industrial policy': a view from asia

Peter Lovelock and John Ure

The European Commission's 1999 Review is a forward looking study for the European market. However, looked at from Asia it raises a number of concerns and may even have the effect of slowing the pace of liberalization in the region. For while the Commission's report focuses on promoting competition in the converging communications market, it does so in terms of the strategic benefits to Europe. To many communications bureaucracies across Asia, faced with the challenge of stimulating the development of e-commerce, the report may well sound like a call to competitive advantage, rather than the promotion of open competition. In this paper we provide a snapshot of how the themes of convergence, competition and forthcoming communication services, as raised in the Commission's review, are playing out across Asia. We argue that domination by North American and European service companies remains a strong concern of many Asian governments and that in order to combat such domination, a number of Asian governments can be expected to promote strong domestic markets – at the expense of ongoing liberalization.

Peter Lovelock is Deputy Director of the Telecommunications Research Project, Centre of Asian Studies, University of Hong Kong, Pokfulam Road, Hong Kong (Tel: +852 2881 1274; fax: +852 2857 9434; email: lovelock@hkusua.hku.hk).

John Ure is Director of the Telecommunications Research Project (Tel: +852 2868 3985; fax: +852 2868 4734; email: jcure@hkucc.hku.hk).

The creation of a dynamic and truly competitive Information Society is vital for Europe's competitiveness. Information Society industries contribute around 15% to the EU's Gross Domestic Product; they are the driving force for economic growth and job creation.

1999 Communications Review, p 1.

Competitiveness is a meaningless word when applied to national economies. And the obsession with competitiveness is both wrong and dangerous... a government wedded to the ideology of competitiveness is as unlikely to make good economic policy as a government committed to creationism is to make good science policy.

Paul Krugman¹

Looked at from Asia, the European Commission's 1999 Review is an interesting study – albeit one that could have unintended consequences on the pace of liberalization in Asia. 'Towards a New Framework for Electronic Communications Infrastructure and Associated Services' will be interesting to the Asian communications community *not* because of the legislative and regulatory prescriptions, and not because of the ostensible promotion of competition and liberalization, but because of the document's underlying promotion of convergence and, more particularly, e-commerce.

While the Communication does not deal directly with the development of e-commerce or e-commerce services,² the document is careful to spell out the links between the converging telecommunication platforms and the resultant market for e-commerce services.³ Indeed, it is in anticipation of the next generation of commercial communication services that the Review is framed. In particular, there appears to be a broad recognition on the part of the authorities – implicit in some parts, stated in others⁴ – that e-commerce in Europe is lagging behind development in the USA, and that the Commission (and national governments respectively) need to help set – or seed – the necessary environment to provide a proactive push.

It is this government-oriented, developmental subtext within what is otherwise a framework for market liberalization, which can be expected to provoke interest in many Asian regulatory agencies. Communications regulatory agencies – and their telecom incumbents – in countries as diverse as Singapore, China, India and Japan are likely to see basic infrastructure access being liberalized in the name of national (or in this case, supranational) market competitiveness. This is just as likely to resonate as 'industrial policy' across much of Asia – particularly at a time when mass consumer e-commerce has come to be seen as central to future economic growth, but in Asia has yet to take off. The result may be, ironically, a perceived justification for taking a competitive stance *against* further market liberalization in a bid to achieve domestic critical mass and promote national e-commerce and communications champions.

In this article a snapshot is provided of how these themes of convergence, competition and forthcoming communication services (broadly encompassed here as e-commerce) are being debated across Asia and what impact the European Commission's Communications Review may have. Our position is two-fold. First, that in order to combat domination by European and American operators and

1. Paul Krugman. *Pop Internationalism*, MIT Press, Cambridge, MA, p 21.

2. These are stated to be outside the scope of the Communications Review, and covered in related Communications.

'Regulation of services provided over the internet (for example in the field of electronic commerce) is not covered by this Communication; other measures, for example the draft directive on certain legal aspects of electronic commerce in the internal market, would apply to such services.' (p vii); 'The Commission intends to play an important role in this process by introducing focused initiatives, such as the e-Europe initiative...' (p iii).

3. See the diagram on p 20 of the Review.

4. For example, under Policy Objectives (p iv), see 'To consolidate the internal market in a converging environment'. See also p 1, 'The Rationale for the 1999 Communications Review'.

service providers within next generation telecommunication services (such as the services associated with third-generation mobile, broadband, IP-based networks, and digital broadcast), Asian governments are likely to promote strong domestic markets by pursuing similar state-managed policies to those which they have pursued previously. The Commission's perception of a forthcoming wave of mergers and industry consolidation⁵ and the inherent industry uncertainty as we move towards broadband are both likely to reinforce this retreat from market liberalization, not further it.

Second, it is the link between current infrastructure development and forthcoming e-commerce which is fundamental to understanding how Asian regulators will respond. Until now e-commerce has lagged behind in development across Asia, and it will continue to lag until governments become involved in providing the necessary infrastructural environment. By this we mean a transparent regulatory framework encompassing convergence and ongoing market liberalization, a secure trading environment for merchants and consumers and a new, more appropriate emphasis upon education, training, research and development.⁶

Not a United States of Asia, nor an Asian Common Market

The place to begin any review of the pace of market liberalization in Asia is with the obvious: Asia is not a single market (see Table 1). It is a heterogeneous polyglot of markets with different languages (and, importantly for data communications services, different written scripts), different currencies (which in some cases include problems of convertibility, again meaning problems for e-commerce), different cultures, different economic structures, and different cultural sensibilities. Although this can also be said to be true of Europe, in Asia there is no supranational legal or administrative infrastructure. Nor is there any form of overarching policy coordination process.

The market differences that can result from such diversity are all too often masked by talking in terms of 'Asia'. Yet these differences can be profound. For example, while Asia represents perhaps the largest potential market for third generation mobile telephony,⁷ it is a market which comprises: the largest GSM market in the world (China); the world's second largest CDMA market (Korea); and the world's largest PCS market (Japan) – all *contending* second generation telephony standards. This, of course, compares quite *unfavourably* to the European-wide GSM market or the American CDMA market. There may therefore be very little short-term incentive for market openness if it means that a country's manufacturing and services national champion could be steamrolled by a different global standard and the country's consumers will bear the brunt of the cost in switching.⁸ Hence, China's desire to involve itself in the standards setting process for 3G mobile, so as to give its domestic champions (Huawei, Zhongxing, et al) the opportunity to reclaim the China mobiles market from Nokia, Ericsson and Motorola.

5. 'Liberalization both at European and global level is bringing with it mergers, acquisitions and new alliances, which are profoundly changing the nature of the industry' (p iii).

6. TIF, *Hong Kong as an Internet Financial Hub*, Position Paper, No 2, Telecoms InfoTech Forum, Hong Kong, September 1999, p 7.

7. TIF, *Hong Kong: A Test-bed for Third Generation (3G) Wireless?*, Position Paper, No 3, Telecoms InfoTech Forum, Hong Kong, December 1999, p 13.

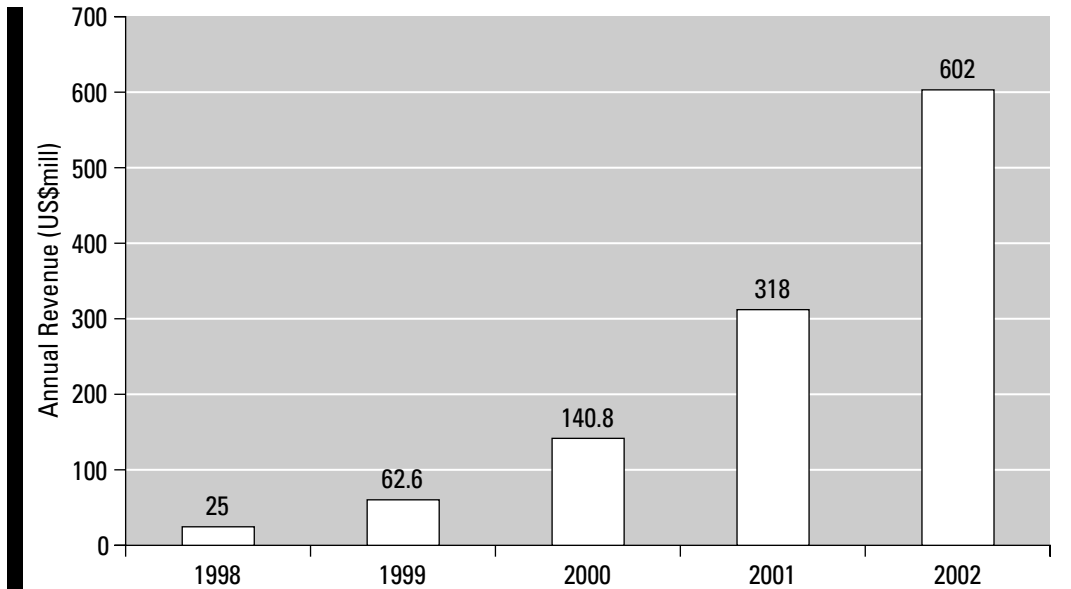
8. The counter argument of higher costs resulting from isolated standards is, of course, well documented, but often fails to take into account the political issues involved.

Table 1: Asia's disparate telecoms markets.

Country	Population (mill)	GDP per person	Fixed lines (mill)	Mobiles (mill)	Teledensity (fix + mob)	Net hosts
China	1269	780	141	33.1	13.7	62935
India	989	440	21.7	1.2	2.3	17979
Singapore	4	21800	1.8	1.4	80	103862
Taiwan	22	12000	11.6	5.9	79	424209
Hong Kong	7	24700	3.8	3.7	107	98183
Malaysia	23	10700	4.4	2.6	30	53447
Indonesia	208	460	5.6	2.6	3.9	15766
Philippines	75	900	2.8	2.4	6.9	9942
Australia	19	18800	9.6	6.5	85	907637
New Zealand	4	13000	1.9	0.9	70	182021
South Korea	47	6800	20.1	18.2	81	260146
Japan	127	30300	63.6	56.5	95	2072529
Thailand	62	1800	5.1	2.2	11.7	27690
Pakistan	137	500	2.7	0.4	2.2	3027
Vietnam	79	300	2.04	0.3	2.9	2
Bangladesh	130	290	0.38	0.1	0.3	0
Laos	5	260	0.03	0.01	0.8	0
Macau	0.4	16000	0.2	0.1	75	155
Mongolia	3	400	0.1	0.01	3.6	11
Brunei	0.3	20400	0.1	0.05	50	289
Papua New Guinea	4	1000	0.05	0	0.13	231
Cambodia	11	270	0.025	0.1	1.1	144
Myanmar	49	770	0.25	n/a	0.5	0
Sri Lanka	19	830	0.54	0.2	3.8	983
Nepal	23	230	0.2	0	0.8	160
Bhutan	1	450	0.008	0	0.8	68

Source: *TelecomAsia*, December 1999, p 56.

Similarly, the voice over IP (VoIP) market in 'Asia' has extraordinary potential (see Figure 1), but again, it is a market which encompasses countries where VoIP is effectively not possible (Myanmar), not allowed (Vietnam), limited to state-sanctioned ('trial') licensees (China), partially open (Singapore), and completely unfettered (Hong Kong). Thus, while companies such as VocalTec can exploit the scale and scope of solutions that target the American market or the European market in those localities, in Asia there is no such aggregation.

Figure 1: Asian VoIP market.

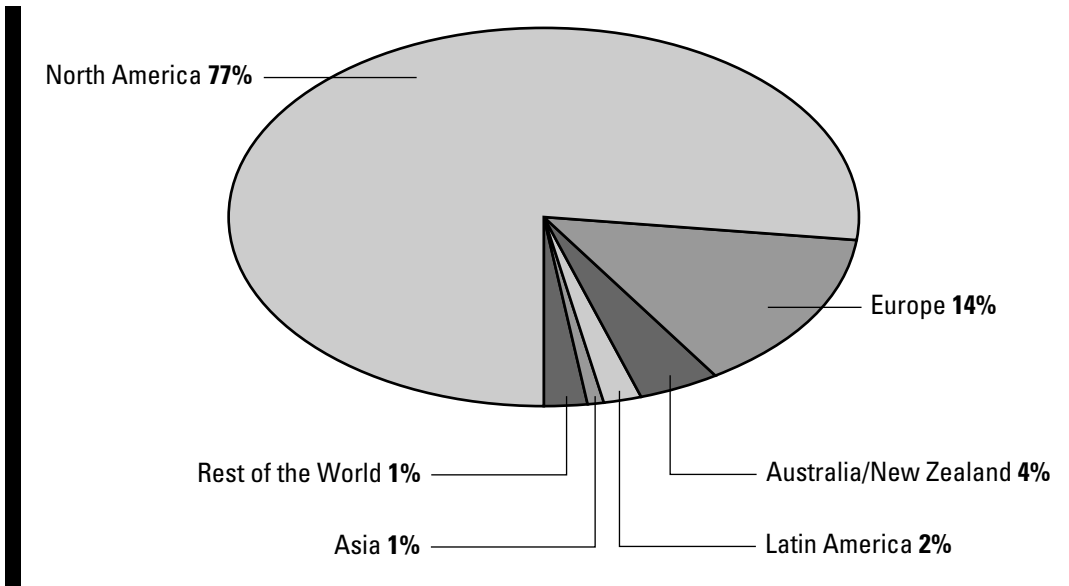
Source: 'Internet Telephony in the Asia-Pacific Region', *Yankee Group Report, Asia-Pacific Communications*, Vol 7, No 12, August 1999.

Nor can Asia be considered as a single e-commerce market, and this is where the differences become important in terms of the next wave of telecommunications regulatory liberalization. Up until this point, there has been very little in the way of consumer-oriented e-commerce throughout Asia (see Figure 2). While it has been business-to-business e-commerce has formed the greater part of national and global electronic trading to date, it is business-to-consumer e-commerce which is likely – eventually – to drive the electronic economy. Yet in Asia there is still almost no business-to-consumer e-commerce; and what there is, is usually directed towards companies in the US or (to a far lesser extent) Europe. With only 2–3% of Asia's population having basic communications access to e-commerce this is perhaps not surprising. But that 2–3% still represents some 70 million individuals and these individuals are predominantly the wealthy, urban, young, business-oriented elite – classic early adopters and a marketer's dream demographic. They are also the target audience that helped justify the launch of Star TV, one of the forerunners of pan-regional communications development. They are also a key part of the demographic that has helped to place Hong Kong, Japan and even Cambodia amongst the highest per capita users of mobile phones in the world, and to make China one of the fastest growing internet subscription markets in the world (see Table 1). For e-commerce to be *significantly* lagging behind across Asia, there are therefore other market inhibitors.

One significant market inhibitor reflecting the lack of an aggregate Asian market is the absence of a multi-currency, multi-lingual transactions (payment) platform. This has severely hampered the efforts of Asian small- and medium-sized enterprises (SMEs), small Asian retailers and start-ups with regional or global aspirations, and any Asian entrepreneurs marketing Asia-specific content and services. Why? With security issues still paramount on the net, banks across Asia have been

unwilling to provide online transaction accounts to small businesses for fear that in the event of fraud it is the bank that will end up liable. Thus, in cities such as Hong Kong, Tokyo and Taipei banks have required e-commerce companies to deposit security amounts of up to US\$1 million to establish such accounts – not the sort of money that SMEs and net start-ups tend to be able to leave sitting in non-earning bank accounts. In much of the rest of the Asia, banks simply deny start-ups the ability to establish an electronic transaction account. The alternative for the Asian e-commerce start-up is to establish a US-based transaction account, but of course this subjects the company to US laws and US taxes – again, not an attractive option.⁹

Figure 2: E-commerce consumer revenue distribution, 1998.



Source: ITU.

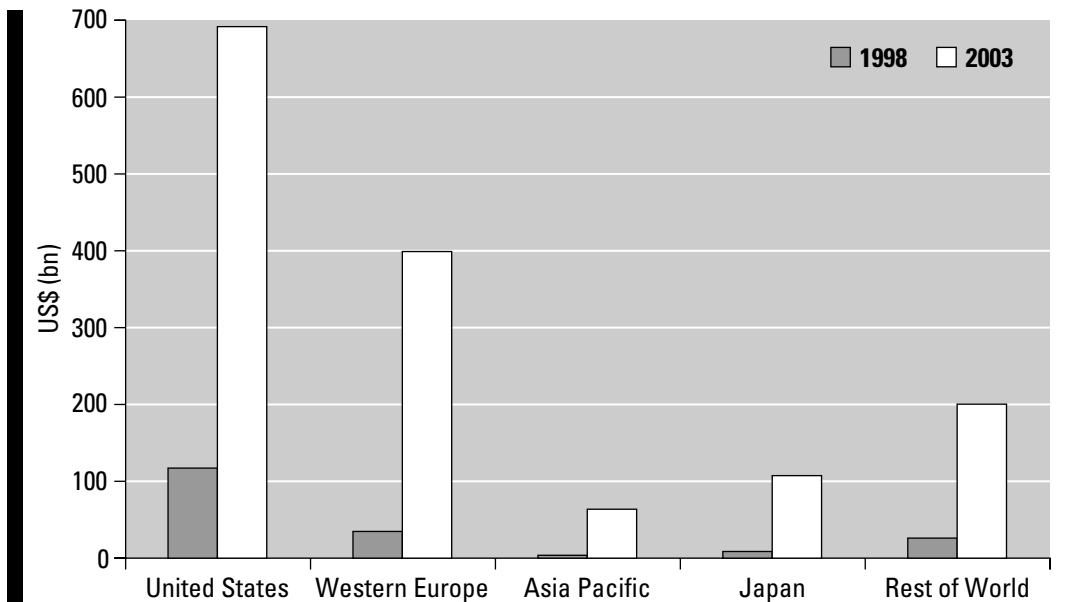
What this means is that, for the moment, consumer e-commerce across Asia has stalled in take-off. E-commerce start-ups are unable to offer the savings made possible by the net to Asian consumers without internationally accepted credit cards based in US dollars (otherwise they incur currency transaction and processing charges). Without the offer of attractive content and convenience it is not in the customer's interest to go to the trouble and expense of acquiring such credit capability – even if they are able. As a result, the majority of fragmented Asia has remained too small for individually-targeted consumer offerings.

A second market inhibitor has been the lack of infrastructure investment (see Figure 3). From the mid-1980s through the mid-1990s (up until the Asian financial pandemonium), countries across Asia invested heavily in their communications infrastructure. Basic telephony and, later, data communications access were seen as important to national development and state governments invested quite

9. An emerging alternative is with payment facilitators such as First Ecomm.com or Cable & Wireless Bermuda. These companies are hoping to capitalize on the intransigence of the banks by utilizing relationships with financial institutions in jurisdictions such as Bermuda or the Cayman Islands. However, by early-2000 they were still only able to provide trade across a handful of currencies. See Ann-Thu Phan, 'New shopping mall has big plans in store', *South China Morning Post*, 11 January, T1. See also Steve Corbin, 'How to build an e-commerce transaction platform in Hong Kong when the bank asks for US\$1 million deposit – alternative approaches, a practical guide', Innovation and Development Seminar Series presentation, Telecommunications Research Project (www.trp.hku.hk/trp_papers).

significantly in rolling out the networks. A second wave of infrastructure investment – albeit on a far, far smaller scale – followed the introduction of private mobile telephony operators and private value-added service providers in the mid-1990s. However, private-sector communications investment in Asia has been of a different nature and undertaken on a far shorter time frame than state sector investment. Not surprisingly it has followed that ISP infrastructure investment across Asia has either been negligible (by private ISPs) or undertaken on a much more limited basis by state governments. Critically, there has been very little trans-national infrastructure investment which has meant that net traffic in Asia is not regional (as the backbones all run to the US or Europe), increasing cost and decreasing the development of regional content. In short, there has been no push to a regional infrastructure, regional content and services, or a regional market. Without a regional market there has been no development of the necessary critical mass – a point now recognized by the European authorities as central to the development of e-commerce in Europe.

Figure 3: Worldwide internet infrastructure investment by region, 1998 and 2003.



Source: IDC.

Achieving critical mass

Seeing the potential for new networking technologies to contribute to the economy – particularly at a time of financial reform – countries across Asia have been promoting the development of their national information infrastructures. Countries such as Singapore, Malaysia, Japan and even China have been aggressively pushing ahead with a variety of programs.

However, one of the ironies of telecommunications development as a basic support structure for a national information infrastructure and information society is the legacy problem. In Hong Kong, for example, Cable & Wireless HKT inherited Hongkong Telecom's 1980s digital city network – state-of-the-art in its day. That has not stopped the company

needing to spend hundreds of millions of dollars in the 1990s upgrading and beginning the development of a broadband ADSL network for residential buildings and fibre-to-the-building for central business districts. Undoubtedly, the onset of competition in the local and international direct dialling markets since the mid-1990s has given the process its drive, but new switching and transmission technologies, client-server architectures, TCP/IP, and new interactive media services all demand new investments, and carry new risks.

Moreover, in contrast to much of the rest of Asia, the philosophy of the Hong Kong government has been consistently minimalist in terms of direct intervention. The argument has always been: just sufficient regulation to help competition become effective, competition to drive investment and innovation in facilities and services. In strict contrast to, say, Singapore or Malaysia, the Hong Kong government has until recently steered sharply away from a proactive approach. But there is now an inherent problem in this approach. E-commerce will not take off on the basis of infrastructure alone, it needs a complementary set of coexisting conditions before 'critical mass' can be reached. The conditions include:

- legal and security issues;
- financial issues, such as the numbers of people with credit cards and the attitude of banks towards credit card liability;
- the numbers of people with computers, and the ease and cost of access to networks; and
- the provision of online services, such as internet banking, to attract regular transactors. Governments have realized that they, too, have a major role to play here, by placing their own procurement procedures online and by placing their services online. However, to achieve even this level of e-commerce promotion and facilitation governments have to rethink the way they themselves are organized and the way they respond to the economic and social needs of the community.

The role of government

In this regard, Hong Kong has been among the leaders internationally. The government created an Information Technology and Broadcasting Bureau (ITBB) in April 1998, bringing under one roof policy for telecommunications, the broadcast media and the government's own information technology responsibilities.¹⁰ This was recognition of the need to create a policy focus that incorporated the convergence of the three areas. Nevertheless, this still left related policy areas which affected the IT industrial sector – such as the government's Cyberport initiative, the Science Park proposal, the disbursement of applied research and development funds, and areas such as the encouragement to banks to promote online internet banking, and the encouragement of business generally to adopt e-commerce – in the hands of other government agencies. Coordination between government agencies is always difficult, and how Hong Kong grapples with the problem will be of intense interest, but other Asian administrations had already been moving down this path through the creation of NII coordination departments during the mid-1990s.

Thus it was not completely unexpected when mainland China's government followed the Hong Kong SAR and merged its Ministry of Posts and Telecommunications (MPT), Ministry of Electronics Industry (MEI) and

10. See TIF, *Television Policy in an Era of Convergence*, Position Paper, No 1, Telecoms InfoTech Forum, Hong Kong, January 1999.

Ministry of Radio, Film and Television (MRFT) into a new 'super' ministry: the Ministry of Information Industry (MII) – thus bringing about administrative convergence of all aspects of telecoms and broadcasting and government IT oversight. Similarly, on 1 December 1999, Singapore created the Infocomm Development Authority (IDA) through the merger of the National Computer Board (NCB) and the Telecommunication Authority of Singapore (TAS). The IDA oversees both IT and telecommunications, and is focused on 'building a critical mass of ICT users' in Singapore. This trend, reflecting a re-evaluation of government policy and administrative focus, can be expected to continue across Asia.

In reviewing the Hong Kong government's newly 'convergent' focus in early 1999, a focus that was intended to promote competition, we stated that 'certain development objectives will be mutually incompatible – at least in the short-term. What this means is that, where specific objectives are to be met, choices need to be made'.¹¹ To support this, we identified a list of the issues that were confronting government and would continue to do so. It is worth reiterating that list here, as the choices indicate the strategic orientation of the government:

Convergence

- Is the primary development focus to be the networks or the content going over those networks?
- Do policy makers wish to promote facilities-based competition or services-based competition?
- How many networks are to be built: one or more?
- Who are policy makers looking to promote: 'national' champions or start-ups?
- Who are policy makers looking to promote: foreigners or locals? (Does convergence challenge cross-ownership restrictions?)
- Where does the next phase of development lie: market opportunity or market consolidation?
- Where will economic growth and development come from – ie are these objectives industry-specific or are they economywide?
- Where will the price benefits lie – higher corporate revenues or lower consumer prices?
- The framework to be employed will promote competition or strategic development?
- Regulatory restrictions will be focused upon information networks or the information itself (ie networks or content)?
- Are policy makers looking to promote 'open' systems (or is there the assumption of a rapid development of network interfaces)?
- What are the time frames accompanying regulatory restrictions – eg licences?

Related industries

- What impact will vertical integration have on the content and the content production industries?
- What consideration needs to be given to education in specific industry sectors?
- Which industries benefit from a strong local production industry?

Content issues

- Is there a role (or responsibility) for government in providing or funding certain content services (public service broadcasting; community broadcasting)?

| 11. Ibid, pp 26–7.

- Is the government emphasis on quality or program diversity?
- Are there other, less-tangible benefits to be considered, eg cultural development?

The reason for reiterating this list in the wake of the European Commission's *1999 Communications Review* is simple: regulators have always assumed that competition law would take care of the market. The trouble is that competition law does not favour competition. It simply tries to block anyone who would prefer not to have competitors. Competition law does not care that there should be two or 200 competitive local exchange carriers or ISPs. The *Review* will be a long-term success in Europe only if the Commission is able to spell out what it is a competitive market should look like and then patrol it. In the words of one commentator, 'It is not enough to give entrants licences and say they have interconnection rights and access rights. The Commission should define roughly what revenues these companies need to maintain significant competition to the incumbents.'¹² If this is true in Europe it will be even more so in Asia, where business success is still often dependent on having an inside handle on government machinations.

Sounds like industrial policy

e-commerce, or the buying and selling of goods and services using the internet, is already worth 17 billion Euro in the EU. It is expected to reach 340 billion Euro by 2003. However, this figure is well below the USA, where with a similar sized economy, e-commerce revenues are more than three times higher. However, Europe has strengths in several key areas, for example security and encryption technologies and electronic banking. Widespread use of the Euro for electronic transactions will significantly contribute to the emergence of an EU-wide electronic marketplace. These strengths must be built on.

eEurope: An Information Society for All, p. 9

Europe needs to build on its strengths. It has a leading role in mobile communications and digital TV. Yet the uptake of the internet has been relatively slow... By combining digital literacy with strength in mobile communications, Europe can lead the next great leap to a wireless internet world.

eEurope: An Information Society for All, p. 4

A fundamental confusion frequently intrudes into any discussion of the impact of communications development upon national economies, particularly in this transitional age towards e-commerce. The confusion resides in the idea that the national economy is a competitive entity that wins or loses out. The reality of economics is that individual *companies* will or will not adopt and adapt to e-commerce according to their own strategic foresight and according to their own estimates of the costs and benefits. Those that lose out in the momentous changes that lie ahead will release resources, and market share, to the more successful companies. In this way the complexion of the national economy will change, but so long as the local environment is conducive to trade and commerce there is no inherent reason for a national economy not to benefit from the changes.

It does not matter whether the successful companies are local in origin or not. What does matter is whether local employment, productivity, social welfare, and so on benefit.

12. David Maloney, 'Competition law is inapt for telecoms', *Communications Week International*, 13 December 1999, p 10.

While this may be the harsh reality of business for the unlucky or the slow, it is also an opportunity for others to employ the financial expertise of the staff concerned, to develop new services and new financial products.

Innovation is at a premium in the emerging internet environment, and this poses an interesting challenge to Asian economies and Asian governments. If economies across Asia can foster local markets in which a steady supply of educated and trained people in information technology are readily available, in which communications regulations are transparent, in which consumer and merchant protection is strong, then the future appears bright. Encouraging access to, and the use of, the new data communications services which will drive e-commerce is the way to drive innovation. This is *one* of the positive themes of the European Commission's Review. Unfortunately, it is a theme which is couched in terms of the benefits to the Common Market of promoting strategic strengths such as mobile technology and electronic banking, and in terms of preserving cultural integrity. To many in Asia that may well sound like a call to competitive advantage, rather than the promotion of open competition.