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The Internet Industry in the Chinese-Speaking Areas of East and Southeast Asia

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I Number of Internet Users in East and Southeast Asia Continues to Grow Rapidly
II The Emergence of an Internet Industry in China
1 The Rapid Diffusion of the Internet
2 High Internet Access Charges
3 Internet Access via Cable TV
4 Monitoring Information on the Internet
5 Current State of the Internet Industry
6 Seeking Venture Capital and Going Public
7 Payment and Distribution as Impediments to E-Commerce
III More Web Sites in Taiwan Than Anywhere Else in East and Southeast Asia
1 The Internet Industry Takes Root
2 Portals and News Channels Form the Mainstay of Taiwan's B2C Internet Industry
3 Internet Trading Soars
4 Cable TV to Provide a High-Speed Network Infrastructure
IV Hong Kong as the Gateway to East and Southeast Asia
V The Future of the Internet Industry in the Chinese-Speaking Areas of East and Southeast Asia
VI What Role Should Japan Play?

There were more than 10 million Internet users in the Chinese-speaking areas of East and Southeast Asia (i.e., including Hong Kong and Taiwan as well as China) at the end of 1999, and that figure is expected to exceed the number of users in Japan by the end of 2001. Information travels instantly in the Internet industry, and there are no national boundaries. The latest business models from the United States can be adopted immediately in East and Southeast Asia, where a Chinese-speaking market is developing across national boundaries. This development comprises two interrelated trends: greater emphasis on local content and greater cooperation among content providers in different countries. If Japan is to make its mark on the Internet industry in these areas, it will not only have to contribute technology and know-how but also develop the conceptual skills needed to be able to lead the alliances that are being formed.

I Number of Internet Users in East and Southeast Asia Continues to Grow Rapidly

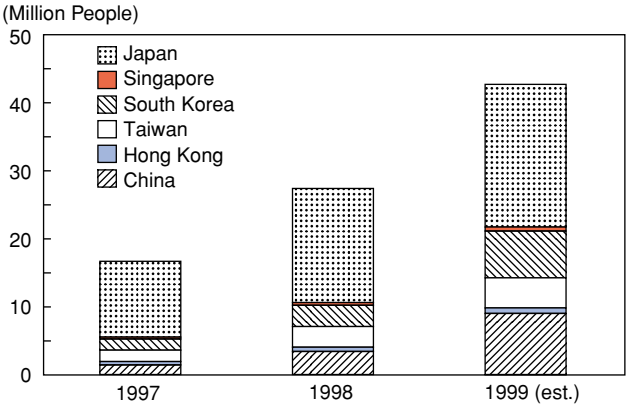
The Internet industry has expanded rapidly in East and Southeast Asia in a period of slightly less than 12 months since the middle of last year. This is also true of the number of users in the main East and Southeast Asian markets, which grew dramatically in 1999 (Figure 1).

The total number of Internet users in China, the East and Southeast Asian NICs (i.e., South Korea, Taiwan, Hong Kong and Singapore) and Japan was estimated to be about 42.27 million as of the end of 1999. Compared with Japan, which had 20.78 million users as of the end of 1999, China and the East and Southeast Asian NICs had a combined total of 21.49 million—the first time that they have overtaken Japan.

Of the main areas besides Japan, China had the largest number of Internet users (8.90 million), followed by South Korea (6.82 million) and Taiwan (4.38 million). In terms of growth between 1997 and 1999, the number of users in China increased by 540 percent from 1.40 million to 8.90 million in just two years, while the number in South Korea increased by 320 percent from 1.63 million to 6.82 million.

The total number of Internet users in China, Taiwan and Hong Kong (here referred to as "the Chinese-speaking areas of East and Southeast Asia" and which share a common language and culture) had reached 14.08 million by the end of 1999—roughly 70 percent as many as in Japan. Given the rate at which the number of Internet users is growing in China, the total number in the Chinese-speaking areas of East and Southeast Asia is bound to surpass the number of users in Japan by the end of 2001. The Internet industry in the Chinese-speaking areas of East and Southeast Asia, where content can be displayed in the same Chinese script, has started to grow at breakneck speed.

Figure 1. The Number of Internet Users in the Main Countries and Areas of East and Southeast Asia



Note: Figures are for the end of each calendar year.
Source: Nomura Research Institute, from official statistics, press reports, etc.

II The Emergence of an Internet Industry in China

1 The Rapid Diffusion of the Internet

The number of Internet users in China has soared since 1998. Figure 2 shows the growth of personal computer sales in the country. Roughly 5.50 million personal computers were sold in China in 1999—a sharp increase over 1998 and nearly 60 percent as many as in Japan (roughly 10.0 million). The number of personal computers in China at the end of 1999 is estimated to have been 12.27 million—a household diffusion rate of 3.54 percent for the country as a whole and an individual diffusion rate of 3.24 percent for urban areas.

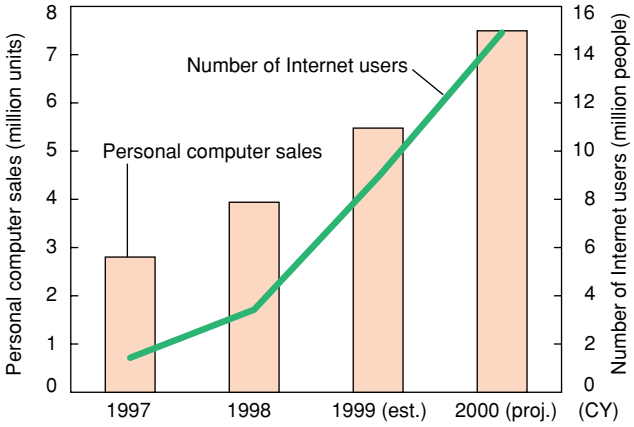
Table 1 shows the regional distribution of Internet users in China as of the end of 1999. The figures are based on data published by CNNIC (the China Internet Network Information Center, an arm of the Chinese Academy of Science) in January 2000. It can be seen from the table that 45.4 percent of China's Internet users live in Beijing, Guangdong or Shanghai. Given that these three areas account for only 7.9 percent of the population, the current regional distribution of Internet users in China tends to be heavily concentrated.

Beijing has 1.89 million Internet users, giving it a diffusion rate of 15.2 percent. This puts it head and shoulders above its nearest rival, Shanghai, which has a diffusion rate of 6.8 percent.

2 High Internet Access Charges

As of the end of 1999, China's Internet backbone was owned by five Internet service providers: CHINANET, the country's largest ISP, which is run and operated by China Telecom; the China Golden Bridge Network (CHINAGBN); UNINET; the China Science and Technology Network (CSTNET); and the China Education and Research Network (CERNET).

Figure 2. China: Personal Computer Sales and Number of Internet Users



Note: Figures for personal computer sales exclude exports.

Table 1. China: Regional Distribution of Internet Users (Top 10 Regions)

	Number of Internet users		Population		Diffusion rate
	(1,000)	(%)	(1,000)	(%)	(%)
Beijing	1,890	21.2	12,460	1.0	15.2
Guangdong	1,150	12.9	71,430	5.7	1.6
Shanghai	1,000	11.2	14,640	1.2	6.8
Jiangsu	530	5.9	71,820	5.8	0.7
Shandong	460	5.2	88,380	7.1	0.5
Zhejiang	400	4.5	44,560	3.6	0.9
Liaoning	380	4.3	41,570	3.3	0.9
Henan	310	3.4	65,020	5.2	0.5
Hebei	300	3.3	59,070	4.7	0.5
Sichuan	270	3.0	84,930	6.8	0.3
Other	2,220	25.0	694,220	55.6	0.3
Total	8,900	100.0	1,248,100	100.0	0.7

Notes: (1) Figures for the number of Internet users are for the end of 1999, while those for population are as of 1998; (2) diffusion rate = number of Internet users ÷ population.
Source: Nomura Research Institute, from CNNIC (China Internet Network Information Center) data and *China Statistical Yearbook 1999*.

These five are referred to as Tier-1 ISPs. In addition to providing Internet access services directly to ordinary consumers, they also provide such services indirectly through a large number of Tier-2 ISPs, which connect to their network. Between the end of 1998 and the end of 1999, the number of such Tier-2 ISPs surged from 204 to 520.

The system of Internet access charges in China was established by the Ministry of Information Industry (MII—then the Ministry of Posts and Telecommunications) in April 1997, and charges were subsequently lowered in March and November 1999. When the system was established, access by dial-up networking was restricted to 75 hours a month at a charge of RMB300.

In March 1999 the restriction on access time was lifted and the charge for one hour's access was lowered to RMB4. There was an exception if a user had already accessed the Internet for more than 60 hours in a given month, in which case the charge was RMB8. In November this exception was abolished and a flat rate of RMB4 was implemented. In addition, Internet users were required to pay only 50 percent of the normal line charge.

Table 2 shows the charges for using China Telecom's service (as of the end of April 2000). Other ISPs are basically subject to the same charging structure as that of China Telecom, which was fixed by the state.

Internet access charges in China have therefore gradually come down. As can be seen from Table 2, however, they are still rather high compared with those in Taiwan and Japan. The initial cost is higher than in Japan, and the hourly access cost is only ¥10 or so less than in Taiwan. China's annual Internet access costs—assuming one hour of daily usage—come to more than a third of per capita GDP, whereas those of Taiwan and Japan amount to less than 10 percent of per capita GDP.

Compared with income levels, the costs of Internet access in China are extremely high. Indeed, the fact that Internet users are concentrated in Beijing, Guangdong and Shanghai would appear to reflect this. The only people in China who might be expected to have access to the Internet are those who use it at work, such as in research organizations or companies, and those on high incomes who use it at home.

Charges for a local or national leased line in China are also high. A 64Kbps leased line for use within the same province costs some RMB1,680–RMB3,640 a month (roughly ¥22,200–¥47,000), while the same line for use anywhere in China costs about RMB4,530–RMB5,350 (approximately ¥58,000–¥69,000). Given that a typical 64Kbps leased line costs NT$10,000 (roughly ¥35,000) in Taiwan—the actual charge varies according to the particular package of services—and about ¥50,000 in Japan, the cost of a leased line in China is about the same as in the other two countries.

The high cost of a leased line in China reflects, amongst other things, the fact that China Telecom has long enjoyed a monopoly of the country's fixed-line network and the fact that its local and national line capacity is far below potential demand. This high cost is the biggest headache for China's Internet industry.

3 Internet Access via Cable TV

Cable TV is attracting considerable interest in China as a means of accessing the Internet. As of the end of 1999, some 83 million households in China subscribed to a cable TV service, representing a household diffusion rate of 24 percent based on the 346.3 million households in 1999. Given that there are 43.9 million households in Japan (according to the 1995 census), the number of house-

Table 2. Dial-Up Networking Internet Access Charges

	China		Taiwan		Japan
	(RMB)	(¥)	(NT$)	(¥)	(¥)
Initial charges	100.0	1,285.0	200.0	710.0	1,000
(Japan = 100)	(129)		(71)		(100)
Hourly access charge	4.0	51.4	16.7	59.2	600
(Japan = 100)	(8.6)		(9.9)		(100)
Annual cost	2,217	28,488	12,196	43,297	293,000
Annual cost ÷ per capita GDP	0.348		0.033		0.075
(By way of comparison) Line charge (per hour)	1.8	23.1	16.2	57.5	200

Notes: (1) Charges are those of China Telecom (China), Chunghwa Telecom (also known as HiNet) (Taiwan) and NIFTY (Japan). All assume access via the public telephone network. (2) All access charges are standard, time-sensitive, nondiscounted rates. (3) RMB1 = ¥12.85, NT$1 = ¥3.55 (as of end of April 2000). (4) The figure for annual cost includes the line charge for connecting to the Internet for an hour a day, and the initial cost. (5) Figures for per capita GDP are for 1998.

holds subscribing to a cable TV service in China is about double that number.

The fact that an annual cable TV subscription in China costs less than RMB200 (roughly ¥2,570)—in contrast to the high charges for a fixed telephone line—means that more households subscribe to the former than the latter. The cable TV network is also much faster than the public telephone network. Not surprisingly, therefore, the Chinese government is planning to use the cable TV network together with the fixed-line network to provide Internet access to households. Cable TV stations in Shanghai, Dalian, Qingdao, Suzhou, Nanjing, Guangzhou and Shenzhen are already carrying out tests at the government's request to see whether the network can be used for high-speed access to the Internet.

4 Monitoring Information on the Internet

While the Chinese government is keen to build up the country's Internet backbone and reduce user charges, at the same time it is also concerned about keeping a close eye on the information that is rapidly spreading on the Internet. The "State Secrecy Protection Regulations for Computer Information Systems on the Internet" published by the State Secrecy Bureau in January 2000 contains numerous regulations spread over four chapters and 20 articles. These include (1) a requirement that anyone offering an Internet service that connects to an overseas network must seek official approval of the service's content in advance, and (2) a requirement that Web sites distributing news over the Internet or operating a bulletin board service or chat room must not post any information relating to state secrets.

In China, the spread of information via the Internet is growing so rapidly that the government is no longer able to control it. As a result, the government is eager to use these regulations to establish a new system for monitoring secret information on the Internet.

5 Current State of the Internet Industry

It is already quite common for young entrepreneurs in China who have studied in the United States to bring back with them the latest US business models and to set up Internet businesses funded by overseas venture capital companies. As there is no time lag between the developed and the developing nations on the Internet, it takes only a fraction of a second for the latest business models to cross national boundaries and be transmitted worldwide. As far as the virtual space that consumers can see on their computer screens is concerned, there is almost no difference between the developed and the developing world.

The biggest online shopping mall in China, known either as Chomolungma (the Tibetan name for Mt Everest) or 8848.net (8,848m being the height of Mt Everest), was set up in January 1999 by a former vice president of Microsoft (China), who had earlier studied in the United States, and the president of a Beijing software vendor. Softbank (USA) took a stake in the new company as soon as it was established, and monthly sales are estimated to have soared to about RMB5 million (approximately ¥64.5 million) in the 12 months since the launch of the Web site and the end of last year.

The Web site sells 170,000 different items ranging from books (some 120,000 titles) to software, mobile phones, consumer electronic goods, household electrical goods, flowers, office supplies, and clothing, while users range from individual consumers to provincial companies.

Consumers browse the Web site for the items they are looking for and order them via the Internet. Instead of having its own inventory, 8848.net orders goods from its suppliers in response to customer orders. It then packs the goods once they have all arrived and dispatches them to its customers. The 8848.net Web site and its suppliers are not connected online. Instead, the company has a staff of 50 or so to order all the goods from its suppliers.

Chinese e-commerce Web sites in general—and not just that of 8848.net—thus have a side to them which consumers cannot see on their computer screens. Much of the work behind the scenes, such as receiving customer orders and sending them to suppliers, and dispatching goods to customers, is done manually. Given the low cost of labor, it is more efficient for Chinese Internet businesses to make full use of manual labor where they can, rather than automate or computerize everything.

Just like the situation with 8848.net, the focus.com.cn Web site was established by those who studied in the United States. After returning to China, they used what they had learned in the US about software technology to set up a company to develop encryption software in 1997, before beginning focus.com.cn in April 1999. Although focus.com.cn does its business in Beijing, its head office is based—at least officially—in the United States and its domestic branches are classified as overseas companies. Since Internet businesses operating in China are subject to various restrictions, many Chinese companies prefer to have their head office overseas, even though their business may be domestic.

The focus.com.cn site is a general portal. Chinese consumers are eager for information about goods and services and are strongly interested in knowing what is going on in the outside world. When asked why they use the Internet, one of the main reasons always given by the subjects of such surveys is "to collect information." From the very beginning, 8848.net was engaged in e-commerce, but many Internet businesses start life as general portals in order to raise their profile—or amass hits—even if they are aiming at eventually selling something. The same is true of focus.com.cn, which offers the latest information broken down into detailed subcategories.

When we visited focus.com.cn, a CNN program was being distributed over the company's network, and a large number of people were busy translating the content into Chinese. Producing content for the Internet can be more labor-intensive than is generally imagined, and China is in a strong position in this regard.

Having made a name for itself through its Web site, focus.com.cn launched an e-commerce site called lalasho.com in December 1999. In Chinese, *lalasho* means "joining hands." On its Web site, lalasho.com invites consumers to register to buy a particular product, and then negotiates with the manufacturer by soliciting bids to obtain the best price once it has collected enough buyers. Through using this service and "joining hands," consumers are able to bargain from a stronger position and purchase goods on more favorable terms.

As of March 2000, lalasho.com had 100,000 members and was receiving 100 orders a day. The company uses a C2B (consumer-to-business) type of business model, where consumers approach manufacturers. This demonstrates that even the latest types of business models are being tried out in China.

6 Seeking Venture Capital and Going Public

The largest portal in China (Sina.com) was listed on the NASDAQ on April 13, 2000. A Sino-American joint venture, its head office is in the United States. Besides its base in China, Sina.com has Web sites in Taiwan, Hong Kong and Singapore and is the largest portal in the Chinese-speaking areas of East and Southeast Asia.

The Chinese government does not officially recognize the listing of Chinese Internet businesses on overseas stock exchanges. In the case of listing Sina.com on the NASDAQ, the company had to agree not to include its mainland Web sites as assets. However, some observers believe that the fact that the Chinese government turned a blind eye to the listing—albeit with strings attached—means that in the future it will allow even domestic Internet businesses to list on overseas markets.

In fact, we learned during our visit to 8848.net and focus.com.cn that both companies were planning NASDAQ listings at the end of 2000. There are also quite a few Chinese Web site operators in China that are waiting for the opportunity to list. One of these is etang.com, a portal set up with $4 million in venture capital funding.

Incidentally, one of the Web site operators we visited—a company that operates an online shopping mall—told us that the cost of obtaining and delivering goods ordered by consumers from its Web site was greater than the value of the actual orders. Apparently, distribution costs are so high that the company loses more money the more orders it receives. Investment costs were also high, with the company spending some $700,000 a year on advertising and publicity, and operating more than 20 servers.

However, the company was housed in what, even by Beijing standards, was an expensive office block of the kind favored by Western and Japanese companies, and its staff did not appear to be suffering in any way. This was because a large investment by an overseas venture capital company ensured that there were no cashflow problems. Apparently, the company needed to have one million members and monthly sales of $500,000 in order to list on the NASDAQ, and the only question was whether it would succeed before the money ran out.

China is similar to the developed nations in that many Internet businesses are on a financial knife-edge as they try to list before their capital is used up. Some of the entrepreneurs we visited referred to investments from venture capital companies as "sales," while others indicated that they were in business to obtain a US listing. Such remarks suggest that, as elsewhere, the Internet industry in China is taking on increasingly speculative characteristics.

7 Payment and Distribution as Impediments to E-Commerce

In China, purchases made over the Internet are paid for by credit card, money order, bank transfer or cash on

delivery. However, consumers are concerned about the possible misuse of credit cards. Moreover, as there is no one system for managing credit information on individuals, Internet businesses have to check the customer's credit status for each new purchase by telephoning or faxing the bank that has issued the credit card. (In the case of the Bank of China, China Construction Bank and China Merchants' Bank, this can be done online.) As this can take several days, credit cards are still an inconvenient means of paying for Internet purchases.

When we asked lalasho.com (the C2B Web site operator mentioned above) about this, the company indicated that its staff could check the bank credit status for customers wishing to pay by credit card so long as there were no more than 100 such transactions a day. However, this would apparently not be possible to do manually if the number increased beyond that.

Moreover, customers wishing to pay by money order or bank transfer have to go to a post office or bank each time, which is hardly convenient. As a result, most Internet purchases in China are handled on a COD basis. In many cases, however, customers refuse to pay even when goods are delivered. We were told by xdsc.com.cn, which operates an online shopping site, that about half the orders it receives are bogus and that the lack of any effective countermeasures was impeding the company's development.

Physical distribution is also a major impediment to the growth of the Internet industry. Not many distribution companies in China have a nationwide network. Moreover, if the delivery company also has to collect cash from customers, it must be trustworthy.

Most shopping sites use EMS (the electronic monetary system, which can deliver to 450 of the country's main cities) to handle deliveries. Delivery by EMS takes about two to three days. In the case of electronic goods, site operators also use Ingram Micro China, which distributes electronic goods made by overseas companies such as Compaq Computer and Intel, and has 13 distribution centers and 23 delivery/collection points in different parts of the country.

However, there is no escaping the fact that there are not enough reliable companies capable of handling deliveries at a reasonable price and that this is one of the biggest headaches for shopping site operators.

Looked at from a different perspective, the problem also means that there are major opportunities for distributors. One of the companies we visited (Shikong.com.cn) operates a shopping site mainly for 3C items (computers, communications and consumer electronic goods). Shikong.com.cn originally sold mobile phones and batteries, and has 27 distribution centers and 2,500 delivery outlets in different parts of the country. It entered the Internet industry in order to make greater use of this network.

After it receives an order, Shikong.com.cn sends the goods via its distribution network to the retail outlet nearest the customer. The customer can then either collect the goods and pay for them or arrange for home delivery. The company receives cash payments by the same route as the one it uses to sell mobile phones. Although it operates its own shopping site, Shikong.com.cn believes that this will not be enough to make a profit. It therefore hopes to offer its distribution network to all the other Internet businesses in China.

This suggests that the main beneficiaries of China's growing Internet industry may turn out to be the "last-one-mile" companies that can deliver direct to the consumer. This may mean that companies such as Haier, the country's largest consumer electronics manufacturer, and Legend Holdings, the biggest manufacturer of personal computers (both of which already have distribution centers, delivery centers and retail outlets throughout the country), may have a vital role to play in China's Internet industry.

Although China's Internet industry has its problems, it undoubtedly also has enormous potential. MII estimates that there were more than 200 e-commerce sites operating in the country as of the end of 1999, with annual sales of some RMB200 million (approximately ¥2.6 billion). MII believes that 1999 can be seen as the first year of the Internet era and that a period of growth will begin in 2000.

III More Web Sites in Taiwan Than Anywhere Else in East and Southeast Asia

1 The Internet Industry Takes Root

While 1999 marked the beginning of a period of rapid growth in East and Southeast Asia's Internet industry, Taiwan's Internet industry has enjoyed more stable growth than anywhere else in the region. For one thing, there are none of those companies that call themselves "Internet businesses," but which are actually running huge losses. April 2000 saw the start of Taiwan's TIGER ("Taiwan Innovative Growing Entrepreneur") board, aimed at venture businesses in IT and related fields; but there has been none of the euphoria seen in Hong Kong.

A count of domain names ending in "tw" or "hinet.net" as of the end of 1999 indicated that Taiwan had more servers (850,000) than anywhere else in East and Southeast Asia except Japan and considerably more than the country with the next highest number of servers—the domain name ending in "kr," or Korea (280,000). However, as some sites use "com" instead of either "tw" or "kr," the above numbers do not tell us very much. Nevertheless, it is clear that a large number of Web sites are operating in Taiwan.

2 Portals and News Channels Form the Mainstay of Taiwan's B2C Internet Industry

Earlier this year, *Common Wealth* (one of Taiwan's leading business publications) and Sina.com carried out a joint

study of the needs of Internet users in the Chinese-speaking areas of East and Southeast Asia. According to this analysis, which was based on a survey of some 20,000 Chinese speakers in Taiwan, Hong Kong and China, the main interests in descending order of Internet users in Taiwan and Hong Kong were (1) finding out information, (2) reading local news, and (3) downloading software. Users in China, on the other hand, were apparently interested mainly in (1) reading overseas news, (2) finding out information, and (3) reading local news.

In none of the three countries or areas did "online shopping" figure in the top three user needs. Even in Taiwan, very few online shopping sites have been successful. Even the biggest, Acer Mall (operated by Acer, the leading personal computer manufacturer), is still reporting losses. In fact, apart from magazines and CDs, online shopping sites in Taiwan hardly make any money at all.

In contrast, portals and news channels have long since been profitable as a result of advertising revenue. The Web site of Taiwan's largest portal, Kimo.com.tw, was set up in 1997 by one of Taiwan's biggest systems integration companies. It was recording some 1.2 million hits daily as of the end of 1999 and is making a profit as a result of its advertising revenue. Similarly, PC Home (Taiwan's leading Internet news channel), which provides its 700,000 registered members with a free online news service called E-Paper, is also making a profit as a result of its advertising revenue.

3 Internet Trading Soars

The revision to Taiwan's Securities and Exchange Law at the end of 1997 has allowed the trading of securities via the Internet. More than 50 securities companies now offer customers this facility. Since the middle of 1999, moreover, this venue even includes some securities companies that have no branches and do all of their business over the Internet. As can be seen from Figure 3, however, Internet trading still accounted for only some 5 percent of all securities trading in Taiwan in terms of value and 7 percent in terms of the number of transactions in the second half of 1999.

However, Polaris Securities, the securities company with the largest share of Internet trading in Taiwan, saw the value of its Internet industry soar from NT$1.5 billion in January 1999 to NT$60.0 billion in January 2000. The company, which employs about 100 systems engineers and has about 1,500 public telephone lines and five 1.5Mbps lines, already derives about 25 percent of its revenue from Internet trading.

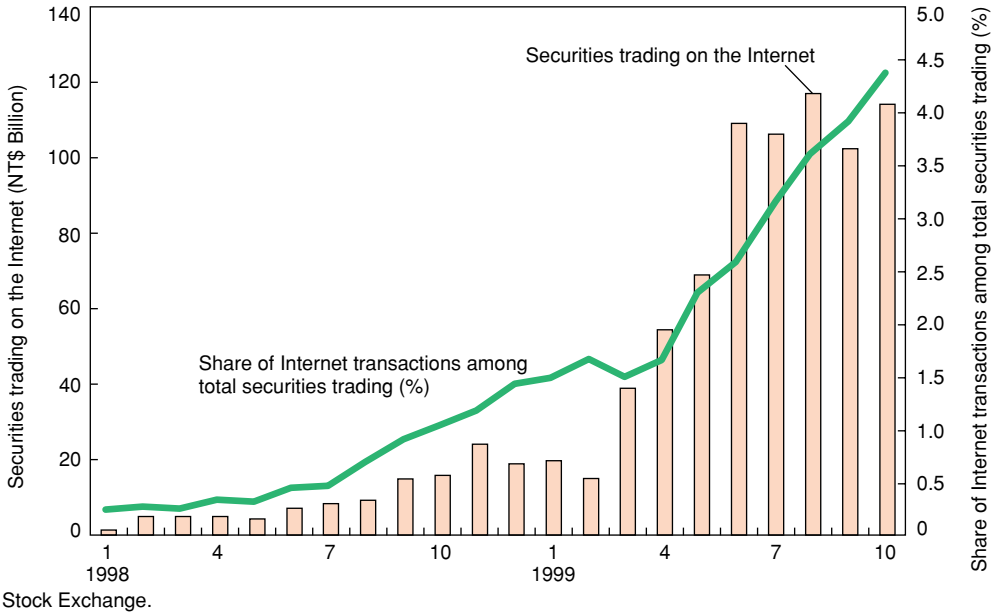
In East and Southeast Asia, it is common for physical distribution and payment methods to cause problems, and Taiwan is no exception. This is why the use of the Internet for financial transactions, which do not involve any physical distribution or payment by credit card, has also developed more quickly in Taiwan than its use for other purposes.

4 Cable TV to Provide a High-Speed Network Infrastructure

As in China and Singapore, the household diffusion rate of cable TV in Taiwan is very high (roughly 80 percent). Taiwan's cable TV industry is dominated by two big operators, Giga Media and ETWebs.com. These two companies have recently been making aggressive moves into telecoms—e.g., by acquiring a domestic long-distance telephone service licenses and providing a high-speed Internet access service using coaxial cable since the summer of 1999.

Whereas the public telephone network, ISDN and ADSL offer data transfer rates of 56Kbps, 64Kbps and

Figure 3. Taiwan: Securities Trading on the Internet



Source: Taiwan Stock Exchange.

512Kbps, respectively, access to the Internet via cable TV would enable a transfer rate of 10Mbps (i.e., 10,000Kbps).

In the second half of 1999 alone, ETWebs.com signed up 5,000 households to its ISP service and is hoping to sign up 100,000 households in 2000 and 500,000 in 2003. The monthly fee, which allows unlimited use, is NT$1,250 (roughly ¥4,400). Compared with access via the public telephone network, which costs NT$800 for 48 hours or NT$1,520 for 100 hours, access via cable TV cannot be described as expensive and has proved especially popular with heavy users.

If this type of high-speed Internet access becomes more common, users will find it easier to download video and music. ETWebs.com makes full use of the high-speed connection to offer downloads of online games and PR programs for films in addition to music.

In terms of business lines, Taiwan offers the best balance anywhere in East and Southeast Asia, with sites ranging from online shopping to finance, portals and shopping malls, while also providing a strong position in infrastructure, with high-speed access via cable TV already available. As the world's biggest producer of IT equipment—especially personal computers and peripherals—Taiwan has a wealth of know-how in Internet hardware technology that is unrivaled in the rest of East and Southeast Asia. Although their efforts are not readily apparent to the outisde, Taiwan has the best-developed Internet industry in terms of both software and hardware of anywhere in East and Southeast Asia.

IV Hong Kong as the Gateway to East and Southeast Asia

Interest in Hong Kong's Internet industry tends to focus on the stock market. November 1999 saw the creation of the GEM (Growth Enterprise Market) board, a market for venture businesses. As of the end of March 2000, 16 companies were listed on the GEM, followed only a month later by the tom.com portal set up by Cheung Kong (Holdings). This surge of activity in Hong Kong Internet stocks became a much-discussed topic even in the rest of East and Southeast Asia.

Since April 2000, however, when Hong Kong's Internet stocks began to come off the boil, the prices of these stocks have collapsed to a fraction of their all-time highs, and activity is now rather subdued.

In spite of the stock market debacle, Hong Kong's Internet industry has been steadily developing. In the field of finance, Hong Kong's e-commerce is more advanced than anywhere else in East and Southeast Asia, and Hong Kong is trying to be the gateway to the Internet industry in East and Southeast Asia.

Asia Online, which was founded in Hong Kong in 1998, offers consultancy services to Internet businesses from its base in Hong Kong and has used mergers and acquisitions to expand its operations to cover Malaysia, the Philippines, India, New Zealand and Australia.

Similarly, the Taiwanese company Acer and Hong Kong's biggest film studio, Golden Harvest Entertainment, set up a joint venture in April 2000 to distribute music and video over the Internet. The new company aims to expand its business from its base in Hong Kong not only to Taiwan, but also to those areas in China and Southeast Asia covered by Golden Harvest's network.

Another example is asiacontent.com, which was listed on the NASDAQ in April 2000. Based in Hong Kong, the company has subsidiaries in Japan, Taiwan, South Korea, China, Malaysia and India. In addition to distributing entertainment content in the languages of each of these areas, it offers support services for East and Southeast Asian companies wanting to engage in cross-border trading via the Internet.

Hong Kong is therefore a key player in the East and Southeast Asian Internet industry.

V The Future of the Internet Industry in the Chinese-Speaking Areas of East and Southeast Asia

Although we have talked about the Chinese-speaking areas of East and Southeast Asia as if they represented a homogeneous unit, consumers in China, Taiwan and Hong Kong have different tastes and customs as well as different reasons for using the Internet. Even within China, consumers in different parts of the country, such as Beijing, Shanghai and Guangdong, have quite different needs. Therefore any ventures intending to launch an Internet news channel in China would have only limited success if they failed to take account of this and distributed the same content throughout the country. This applies even more to the Chinese-speaking areas of East and Southeast Asia. There would be no point in producing content for them as if they were a single entity. As far as possible, content should be localized.

However, a company that tried to compartmentalize its business country by country or area by area would only limit its growth. Although the Chinese-speaking areas of East and Southeast Asia will soon have more Internet users than Japan, their low average incomes mean that it will be difficult for Internet businesses in these areas to expand in value terms.

In the previous section, it was mentioned that Taiwan's largest personal computer manufacturer, Acer, had joined forces with a Hong Kong film studio. This company has taken a stake in content producers and infrastructure manufacturers not only in Hong Kong, but also all over China in cities such as Beijing, Shanghai, Guangzhou, Xian and Wuhan. Unlike venture capital companies, which seek to make a capital gain when the companies they finance are listed, this company's business model is

to generate added value by being the first to develop a niche market for local content, which it would then market across national boundaries.

Similarly, on May 5, 2000, Giga Media (the Taiwanese cable TV and mobile phone company) and PCCW (Pacific Century Cyberworks, the Hong Kong company that runs tom.com) announced that they would be forming a joint venture to produce content for Chinese speakers all over the world.

The Internet industry in the Chinese-speaking areas of East and Southeast Asia still operates at a regional level, but over the next few years the various industries will begin to coalesce. This process, which will be characterized on the one hand by a move towards more local content and by cross-border alliances between content providers on the other, is gathering momentum.

VI What Role Should Japan Play?

Let us briefly take another look at the Internet industry in China. The founders of the auction site eachnet.com joined a major consultancy after graduating from Harvard, and returned to China in August 1999 to launch their Web site with a $400,000 loan from a US investment bank. Only six months later, they signed an agreement with another US investment bank for it to take a $6.5 million stake in the company. When we visited the company in March 2000, they had signed an agreement for the bank to take a $20 million stake.

The pattern of success that has established itself in China for an Internet entrepreneur is to go and study in the United States, to devise there the business model that will later be used, to develop connections with investment banks and venture capital businesses, and to return home to start up the business. This leaves virtually no opportunity for any Japanese influence.

Like their counterparts in Japan, East and Southeast Asian Internet entrepreneurs are always on the lookout for US business models. Information about such models, such as whether a model has been successful in North America or not, travels at the speed of light even in East and Southeast Asia. The name of the game is to use a successful model before anyone else does and to try as hard as one can until the money from the investment bank or venture capital business runs out. East and Southeast Asian entrepreneurs are so focused on the latest developments in the United States that they have no time to follow what is happening in Japan. For example, no one in East and Southeast Asia outside of Japan has even heard of Rakuten—a well-known Japanese Internet business.

Very recently, however, people there are beginning (albeit very slowly) to take an interest in what is going on in Japan. Figure 4 shows the cover page of the May 2000 issue of a well-known Taiwanese Internet magazine, *Business Next*, which features detailed reports on the latest developments in the Japanese Internet industry. For all the institutional and social similarities between Taiwan and Japan, this was probably the first time that a Taiwanese publication had covered Japan's Internet industry in such depth in a special feature.

Figure 4. A Taiwanese Internet Magazine

Source: *Business Next*, May 2000.

The magazine analyzes the following company strategies and strongly recommends them as business models for East and Southeast Asia: (1) NTT's use of mobile phones as a means of accessing the Internet; (2) venture capital companies, such as Softbank and Hikari Tsushin, that specialize in the Internet business; (3) Sony's attempt to induce users of its PlayStation 2 to use it to access the Internet; and (4) the distribution and payment services Seven-Eleven Japan will offer via its franchises as part of a new e-commerce venture.

Mobile phones have a particularly high diffusion rate in East and Southeast Asia: Hong Kong (54.1%), South Korea (46.4%), Singapore (45.7%) and Taiwan (39.4%) (all figures estimated as of the end of 1999). Because this is significantly higher than the diffusion rate of personal computers, mobile phones represent an important means of accessing the Internet. Even in China, where the diffusion rate is only 3.35 percent (as of the end of 1999), no fewer than 43.24 million people use a mobile phone. Japanese experience and know-how in this field should prove invaluable in the rest of East and Southeast Asia.

Also, as was pointed out in the previous section, the Internet industry in the Chinese-speaking areas of East and Southeast Asia has begun to develop at breakneck speed—even if not always in a clear direction. At the same time, content is becoming more local, and cross-border alliances are being formed. In the not too distant future, the Chinese-speaking areas of East and Southeast Asia (and China, in particular) will undoubtedly come to occupy a key position in the East and Southeast Asian Internet industry in terms of the number of Internet users. Instead of simply watching from the sidelines, Japan urgently needs to make some sort of commitment to this market, whether it be in the shape of technology and know-how or in terms of capital. Japan needs to think seriously about how to assume a leading position in this market.

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