

General Introduction

Chapter 1. General Background of the Region

1. Often claimed as the best example of 'East meets West', Hong Kong is indeed a city of marked contrasts. Historically, Hong Kong has served as Mainland China's window to the world for more than a century and a half since the Chinese Government was forced to cede Hong Kong to the British after the Opium Wars in 1841. Since then, the British Government has transplanted English lifestyle rules to Hong Kong. It quickly became a base for opium export into China, as well as for the sale of tea, porcelain, and other Chinese goods to Europe. The establishment of the Hong Kong Special Administration Region under the People's Republic of China in 1997 opened a new page for this oriental pearl.

2. Hong Kong has one of the world's most dramatic harbours with breathtaking views everywhere. It covers an area of 1,100 square kilometres with a population of more than 7 million, and thus, is a densely populated region. Nearly 200 uninhabited islands lie within Hong Kong waters in the South China Sea, while the Kowloon neighbourhood of Kwun Tong is the most densely populated area among the District Council districts. Almost 95% of the population is Chinese. Chinese and English are the official languages. Cantonese is widely used as a Chinese dialect. The residents come from everywhere. All are in Hong Kong because of its status as a financial and cultural crossroads. Conversing with neighbouring communities in Chinese can bridge the language gap between China and the rest of the world. Hong Kong's openness to foreigners and different cultures allows the merging of the best of both technology and knowledge.

3. Nearly three-quarters of Hong Kong is undeveloped, and most lies within the Country Parks System. Forest-carpeted mountains harbour thousands of plant species, monkeys, pangolins, and even, until recently, tigers. Commerce and trade are the lifeblood of Hong Kong and the value of both imports and exports exceed the Gross National Product (GNP) of Hong Kong.

4. Toys and movies are two industries in which Hong Kong has enjoyed past success. Hong Kong toy companies have in fact become virtual manufacturers that can prototype, produce and distribute toys from sub-contracted factories and warehouses in Mainland China, keeping capital infrastructure low and supply chains

flexible. Hong Kong's film industry, taking the style of amusements from the Hollywood films, has achieved worldwide recognition.¹

4.1. Financial services, tourism, trading and logistics, and professional services are the four key industries in Hong Kong accounting for 60% of the Gross Domestic Product (GDP). The Chief Executive recognized that it is important to constantly enhance the competitiveness of Hong Kong and continue to evolve into a high value-added, knowledge-based economy to maintain its leading edge over global competitors in his 2009–2010 Policy Address.

5. From 1989 to 2008, Hong Kong's GDP grew at an average annual rate of 4% in real terms. In 2008, the GDP grew by 2.5% in real terms, a rapid deceleration from the strong 6.4% growth in 2007. In 2009, GDP fell by 2.6% as a result of the global financial crisis but a recovery began in the third quarter of 2009. In 2010, economic recovery became increasingly entrenched with GDP increased by 7.1%, year-on-year in real terms. 'The Hong Kong economy has moderated since the second quarter of 2011 amid slowdown in global demand. After expanding by 5% in 2011, GDP in real terms posted a year-on-year growth of 0.9% in the first half of 2012.' Hong Kong is the world's tenth largest trading entity in 2012, with the total value of imports and exports exceeding its GDP.²

6. Hong Kong is the fifteenth largest banking centre in the world in terms of external transactions. It is home to Asia's third largest stock market and the world's sixth largest foreign exchange market.³ The government is committed to promoting Hong Kong as a major international financial centre. Hong Kong has one of the world's most open and transparent investment regimes. It is committed to maintaining a level-playing field for foreign and local investors both in law and business practice. To sustain the favourable business environment, the government's approach remains one of minimum interference and maximum support.

7. The Hong Kong Special Administrative Region (HKSAR) was set up after the transfer of sovereignty from Great Britain to China on 1 July 1997. Today, though the role of the West remains as strong as ever, China plays a greater role than ever in Hong Kong. Politically and economically, Hong Kong is becoming more and more Chinese. However, as a Special Administrative Region of China, Hong Kong enjoys a high degree of autonomy with no change in its lifestyle, except defence

1. *Hong Kong: The Gritty Underbelly of Consumer Technology*, 22 Jul. 2002 (available at www.apmforum.com/columns/china-recon3.htm).

2. *Economic and Trade Information on Hong Kong*, 28 May 2010 (available at <http://www.hktdc.com/info/mi/etihk/en/>). *The World Factbook: Hong Kong*, 3 Jun. 2010 (available at <https://www.cia.gov/library/publications/the-world-factbook/geos/hk.html>). *Hong Kong: The Facts-Statistics*, Information Services Department, Hong Kong, 2010 (available at www.gov.hk/en/about/about/hk/factsheets/). Ch. 3 of the Hong Kong Year Book 2008 (available at www.yearbook.gov.hk/2008/en/index.html). The latest statistics are available at the Census and Statistics Department HKSAR website at www.censtatd.gov.hk/home/index.jsp.

3. *Hong Kong: The Facts-Financial Services*, Information Services Department, Hong Kong, 2010 (available at www.gov.hk/en/about/about/hk/factsheets/). Ch. 3 of the Hong Kong Year Book 2008 (available at www.yearbook.gov.hk/2008/en/index.html).

and foreign affairs. The 'one country, two systems' applies. The Joint Declaration of 1984 between Britain and China set out the terms and conditions for the return of Hong Kong to China; the Basic Law,⁴ enacted by the National People's Congress of China in 1990, functions as the constitutional basis for Hong Kong's Government and legal system since the handover. This provides that the HKSAR will maintain Hong Kong's current legal, social and economic systems and lifestyle.

8. The HKSAR is headed by the Chief Executive, who is advised on major policy decisions by the Executive Council. The HKSAR has a two-tier system of representative government. At the central level is the Legislative Council which legislates, controls public expenditure and monitors the performance of the administration. At the district level, eighteen district councils advise on the implementation of policies in their respective areas. The HKSAR has an independent judiciary. It is responsible for the administration of justice and interprets the laws enacted by the legislature.

9. One aspect representing the high autonomy is the continuance of the legal system in Hong Kong. According to the two documents mentioned above, Hong Kong is to remain a common law system for at least fifty years after the handover. This, in comparison to the mainland legal system, is classified as a civil law system. The common law, rules of equity, ordinances, subordinate legislation and customary law shall be maintained, except for any that contravene the Basic Law, and subject to any amendment by the legislature of the HKSAR.⁵ The HKSAR legislature may also pass new legislation. The national law of the People's Republic of China (PRC) shall not be applied in the HKSAR, except those listed in Annex III to the Basic Law.⁶ However, the National People's Congress of the PRC may add or delete from the list of laws in Annex III after consulting the Basic Committee and the HKSAR Government.⁷

10. Hong Kong offers a favourable environment for the development of modern information technology. As a regional trading and services centre, Hong Kong is the place for large volumes of commercial transactions supported by excellent telecommunications and information technology infrastructure.

4. The Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China, Adopted at the Third Session of the Seventh National People's Congress on 4 Apr. 1990.

5. Article 8 of the Basic Law.

6. The following national laws shall be applicable: Resolution on the Capital, Calendar, National Anthem and National Flag of the PRC; Resolution on the National Day of the PRC; Order on the National Emblem of the PRC Proclaimed by the Central People's Government (Attached: Design of the national emblem, notes of explanation and instruction for use); Declaration of the Government of the PRC on the Territorial Sea; Nationality Law of the PRC; Regulations of the PRC Concerning Diplomatic Privileges and Immunities.

7. Article 18 of the Basic Law.

11. In his 1997 Policy Address, the Chief Executive stated his vision to make Hong Kong a leader, not a follower, in the information world of tomorrow. In his 1998 Policy Address, he further emphasized the importance of using Information Technology (IT) to help Hong Kong retain its competitive edge and to drive its overall economic expansion.

Chapter 2. Telecommunications Infrastructure

12. The role of Hong Kong as the leading business centre in the Asia-Pacific region has much to do with its telecommunications infrastructure, which facilitates domestic and international communications by voice or data. Hong Kong ranks fourth in Asia (12th in the world) in the Network Readiness Index in the Global Information Technology Report 2010–2011, indicating Hong Kong's advanced position in telecommunication infrastructure, regulatory environment and business readiness of using information technology.⁸ Hong Kong has developed an excellent and advanced telecommunications infrastructure with 100% full broadband coverage for commercial buildings and domestic households,⁹ 223% mobile service penetration rate as of September 2012, and 289 licensees authorized to provide External Telecommunications Services (ETS) as at November 2012.¹⁰

13. The next generation of mobile communications, that is, 3G, has also been introduced, which can provide tremendous opportunities not only in network operation but also in content creation and service application.¹¹ The first 3G mobile services were launched in January 2004. Since the launch of 3G mobile services, the take-up rate has grown rapidly. In September 2012, more than 8.86 million mobile phone users were enjoying 3G/4G advanced services such as video calls, video streaming/downloading and interactive real-time gaming. With the launch of the CDMA2000 service in November 2008, visitors can now use roaming services through the CDMA2000 network, in addition to the GSM900/1800 and W-CDMA networks. All of these conditions provide an excellent foundation for developing an information-based economy in Hong Kong.¹²

14. Hong Kong is the first major city in the world to have a fully digitized telephone network and it has one of the highest rate of telephone line penetration in the region (a rate of 101.6 residential lines per 100 households in January 2010). According to the International Telecommunications Union's (ITU) Report 'Internet for a Mobile Generation', Hong Kong was the world leader in the Mobile/Internet Index ranking in 2002 with 84% of the total population having mobile phones.¹³ In September 2012, the number of mobile service subscribers was boosted to 15.95 million representing one of the highest penetration rates in the world at about 223%. This index measures how an economy is performing in terms of information and

8. Telecommunications Industry in Hong Kong, 3 May 2012 (available at <http://hong-kong-economy-research.hktdc.com/business-news/article/Hong-Kong-Industry-Profiles/Telecommunications-Industry-in-Hong-Kong/hkip/en/1/1X000000/1X003VIX.htm>).

9. *From the Commissioner*, Hong Kong Economic and Trade Office in Washington DC Newsletter, Spring 2008 (available at www.hketowashington.gov.hk/dc/circle/April-May08/Articles/text.htm).

10. *Hong Kong: The Facts-Telecommunications*, Information Services Department, Hong Kong, 2013 (available at <http://www.gov.hk/en/about/abouthk/factsheets/docs/telecommunications.pdf>).

11. *Press Release: Second Consultation Paper on Licensing of 3G Mobile Services Announced*, 3 Oct. 2000 (available at www.info.gov.hk/gia/general/200010/03/1003166.htm).

12. *Hong Kong: The Facts-Telecommunications*, Information Services Department, Hong Kong, 2013 (available at <http://www.gov.hk/en/about/abouthk/factsheets/docs/telecommunications.pdf>).

13. Office of the Telecommunications Authority, November 2001.

communication technologies.¹⁴ Broadband internet penetration in Hong Kong was estimated at 87% of households in September 2012, up from 77.7% of households in 2008.¹⁵ According to the reports issued by the ITU, Hong Kong ranked second in Asia in 2007 in terms of broadband penetration.¹⁶

Table 1 Business Receipts (HKD Million)¹⁷

	2009	2010	2011
Public local telephone/facsimile/telegraph/telegram services	6,721.9	4,786.8	4,887.3
Mobile phone services	15,357.4	16,236.9	18,758.0
Public long distance telephone services	4,526.1	4,572.6	6,645.2
Other telecommunications services	21,376.5	23,664.1	24,016.1
Total	47,982.0	49,260.4	54,306.6

15. Hong Kong is the largest teleport in Asia. Satellite-based telecommunications and television broadcasting services are provided via 185 satellite earth station antennas providing dedicated relay services.¹⁸ Hong Kong is also connected to nine submarine cable systems as at April 2010.¹⁹

16. Hong Kong's telecommunications industry is totally privately owned and faces no restrictions on foreign investment. All telecommunication services are open for competition and thus Hong Kong is leading the way towards full liberalization in the Asia-Pacific region.²⁰

14. *Profiles of Hong Kong Major Service Industries: Telecommunications*, 17 Sep. 2002 (available at www.tdctrade.com). *Hong Kong: The Facts-Telecommunications*, Information Services Department, Hong Kong, 2013 (available at <http://www.gov.hk/en/about/abouthk/factsheets/docs/telecommunications.pdf>).

15. *Hong Kong: The Facts-Telecommunications*, Information Services Department, Hong Kong, 2013 (available at <http://www.gov.hk/en/about/abouthk/factsheets/docs/telecommunications.pdf>).

16. Chapter 17 of the Hong Kong Year Book 2008 (available at <http://www.yearbook.gov.hk/2008/en/pdf/E17.pdf>).

17. *Sources: Key statistics on Business Performance and Operating Characteristics of the Information and Communications, Financing and Insurance, Professional and Business Services Sectors 54* (available at <http://www.statistics.gov.hk/pub/B10800132011AN11B0100.pdf>).

18. *Hong Kong: The Facts-Telecommunications*, Information Services Department, Hong Kong, 2013 (available at <http://www.gov.hk/en/about/abouthk/factsheets/docs/telecommunications.pdf>).

19. The Asia-America Gateway Cable System (AAG), Asia Pacific Cable Network (APCN), Asia Pacific Cable Network 2 (APCN-2), EAC - C2C, FLAG Europe Asia (FEA), FLAG North Asia Loop (FNAL) / REACH North Asia Loop (RNAL), Sea-Me-We 3 (SMW3), TGN-Intra Asia Cable System (TGN-IA) and Thailand-Vietnam-Hong Kong (TVH).

20. *Hong Kong Economy: Telecommunications*, 3 May 2012 (available at <http://hong-kong-economy-research.hktdc.com/business-news/article/Hong-Kong-Industry-Profiles/Telecommunications-Industry-in-Hong-Kong/hkip/en/1/1X000000/1X003VIX.htm>).

Table 2 Key Telecommunications Statistics²¹

Telecommunications Services	Quantity
Mobile network operators (May 2013)	5
Local fixed network operators (May 2013) ^a	19
External fixed telecommunications services providers (May 2013) ^b	284
– Facility-based external fixed network operators (May 2013) ^c	41
– Services-based external telecommunications services providers (May 2013) ^d	243
Residential fixed line penetration rate (March 2013) ^e	102.7%
Mobile subscriber penetration rate (March 2013)	228.4%
Mobile subscribers (March 2013)	16,387,536
2.5G and 3G mobile subscribers (March 2013)	10,694,969
Internet Services	Quantity
Internet service providers (May 2013) ^f	193
Registered customer accounts with dial-up access (estimated) (March 2013)	716,542
Registered customer accounts with broadband access (estimated) (March 2013)	2,255,039
Household broadband penetration rate (March 2013)	85.5%
Public Wi-Fi access points (May 2013)	19,004

* In the above table, some operators are authorized to provide more than one type of services, and therefore the above total number of service providers may be larger than the total number of licensees.

a. Include all licensees authorized to provide facility-based local fixed telecommunications services under fixed telecommunications network services (FTNS) license, fixed carrier license (FCL) or unified carrier license (UCL) using wireline or wireless technology.

b. Include all licensees authorized to provide facility-based external telecommunications services (ETS) under FTNS license, FCL, UCL and service-based ETS under services-based operator (SBO) license.

c. Include all licensees authorized to provide cable-based and non-cable based ETS under FTNS license, FCL and UCL.

d. Include all licensees authorized to provide service-based external fixed telecommunications services under SBO license.

e. The number of residential fixed line refers to the total number of residential exchange lines and non-exchange lines, while the residential fixed line penetration is calculated by dividing the number of residential fixed lines by the number of households in Hong Kong.

f. Include all licensees authorized to provide Internet access services under FTNS license, FCL, UCL, SBO license.

21. Office of the Telecommunications Authority, Hong Kong (available at www.ofca.gov.hk/en/media_focus/data_statistics/key_stat/).

Chapter 3. The Information and Communications Technology Market

17. Hong Kong's information technology market is one of the most developed in the region. It has some of Asia's largest and most sophisticated computer installations, with over 1.9 million personal computers installed in Hong Kong. Computer penetration in homes stands at 80%. Some 97.3% of these households with computers are already Internet-connected.²²

18. With the progressive liberalization in the last few years, the Information and Technology Communication (ICT) market is now characterized by open and effective competition, voluntary and industry-led standards and wide consumer choices. The combination of computers and telecommunications technology is creating new applications and services in Hong Kong. A study conducted by the Office of the Telecommunications Authority (OFTA) in October 2008 found that the take-up rates of fixed voice services, mobile services, broadband services and data services in Hong Kong are in the top tier among all the Organisation for Economic Co-operation and Development (OECD) economies and Singapore. Hong Kong also had the most affordable mobile and fixed telecom services.²³

19. Currently, more than half of the population in Hong Kong has access to the Internet. The number of personal computers at home also increased steadily within the last few years, with the penetration rate increasing from 71.7% in 2006 to over 80% now, with around 97.4% of these households having their personal computers connected to the internet,²⁴ which is available to 100% of residential buildings and commercial buildings.²⁵ In addition, over 99% of the population has a television at home.

20. Internet Service Providers (ISPs) are very important in providing access to the basic infrastructure and services for content hosting. In Hong Kong, the ISP market is highly competitive. There are now around 193 ISPs in operation in Hong Kong.²⁶ The ISP market is dominated by a few major players. In November 1996, the Hong Kong Internet Service Providers Association (HKISPA) was formed to promote the development of the Internet. The member companies of the HKISPA account for over 75% of Hong Kong's Internet user market.

22. Census & Statistics Dept., *Thematic Household Survey Report No. 52*, June 2013, at 25 (available at <http://www.statistics.gov.hk/pub/B11302522013XXXXB0100.pdf>).

23. Chapter 17 of the Hong Kong Year Book 2008 (available at www.yearbook.gov.hk/2008/en/index.html).

24. Census & Statistics Dept., *Thematic Household Survey Report No. 52*, June 2013, at 18, 26 (available at <http://www.statistics.gov.hk/pub/B11302522013XXXXB0100.pdf>).

25. *From the Commissioner*, Hong Kong Economic and Trade Office in Washington DC Newsletter, Spring 2008 (available at www.hketowashington.gov.hk/dc/circle/April-May08/Articles/text.htm).

26. Office of the Telecommunications Authority, Hong Kong (available at www.ofca.gov.hk/en/media_focus/data_statistics/key_stat/).

21. Furthermore, Hong Kong has nine digital submarine cables for external connectivity as at April 2010. Accordingly, consumers enjoy the choice of a wide and sophisticated range of services at competitive prices. Broadband access of speed up to 1,000 Mbps to the Internet is available, ahead of some areas in the US and Europe. Hong Kong is also a world leader in the deployment of Fibre-To-The-Home (FTTH) and Fibre-To-The-Building (FTTB) technologies. Thus, contact with consumers and suppliers in Asia is cheap and convenient in Hong Kong.

22. Broadband access is very popular in Hong Kong. All local fixed carriers are allowed under their licenses to provide broadband services using asymmetric digital subscriber line (ADSL), FTTH, FTTB, hybrid fibre coaxial cable, local multipoint distribution system and other technologies. Other than the traditional wireline-based broadband service, there has been an increase widespread of wireless local area networks since 2008. There are now more than 9,173 public wireless fidelity (Wi-Fi) hot spots in Hong Kong as at the end of 2011 (compared to 7,800 in 2008), and the number is still growing.²⁷

23. According to figures released by the Census and Statistics Department in December 2009, about 85.6% of medium-sized firms and 57% of small firms have Internet connections (compared to 95.6% of large-sized firms).²⁸ There are about 300,000 Small and Medium-Sized Enterprises (SMEs) in Hong Kong.²⁹ Application Services Providers (ASP) deliver and manage applications and computer services from remote data centres to multiple users via the Internet or a private network. It is expected that SMEs would benefit most from ASP services so as to concentrate their resources on their core businesses. Besides technical support, the ASPs in Hong Kong also provide integrated e-commerce solutions such as supply chain management to clients.³⁰

24. The number of Internet users has grown by leaps and bounds, and various tasks are being performed via the Internet. As of April 2013, Hong Kong had 2.9 million Internet users. Internet traffic volume reached 215,197 terabits via broadband networks during that month.³¹

27. Chapter 17 of the Hong Kong Year Book 2011 (available at www.yearbook.gov.hk/2011/en/pdf/E17.pdf). Digital 21 Strategy, *Measurement of ICT Development under the 2008 Digital 21 Strategy* (available at www.info.gov.hk/digital21/eng/statistics/stat.html).

28. Census & Statistics Dept., *Report on 2009 Annual Survey on Information Technology Usage and Penetration in the Business Sector*, 21 Dec. 2009 (available at <http://www.statistics.gov.hk/pub/B11100052009AN09B0200.pdf>).

29. Trade & Indus. Dept., http://www.tid.gov.hk/english/smes_industry/smes/smes_content.html.

30. *Hong Kong Economy: Internet*, 8 Sep. 2009 (available at www.hktdc.com/info/vp/a/hke/en/1/5/1/1X0060U6/Internet.htm#).

31. Office of the Telecommunications Authority, *Statistics of Internet Traffic Volume* (available at http://www.ofca.gov.hk/filemanager/ofca/en/content_293/cus_isp_en.pdf) and http://www.ofca.gov.hk/en/media_focus/data_statistics/internet/customer_access_via_broadband_networks/index.html.

Table 3 Business Receipts of Internet Connection Services (HKD Million)³²

	2009	2010	2011
Basic connection services			
Dial-up/leased line account	746.3	842.3	1,338.8
– broadband account	6,294.6	7,547.4	7,770.7
Website hosting and related services	330.3	668.4	643.2
Other Internet-related services	714.6	1204.9	3134.6
Total	8,085.8	10,263.1	12,878.2

Table 4 Percentage of Establishments with Internet Connections³³

By Industry	By Employment Size		
Manufacturing, electricity & gas	64.7%	Large	95.6%
Construction	51.3%	Medium	85.6%
Wholesale, retail, I/E trades, restaurants & hotels	61.7%	Small	57.0%
Transport, storage & communications	37.4%		
Community, social & personal services	53.8%		
Financing, insurance, real estate & business services	79.5%	Overall	60.6%

32. Source: Key Statistics on Business Performance and Operating Characteristics of the Information and Communications, Financing and Insurance, Professional and Business Services Sectors in 2011, at 55 (available at <http://www.statistics.gov.hk/pub/B10800132011AN11B0100.pdf>).

33. Source: Report on 2009 Annual Survey on Information Technology Usage and Penetration in the Business Sector, Census and Statistic Department, December 2009, at 10 (available at <http://www.statistics.gov.hk/pub/B11100052009AN09B0200.pdf>).

Chapter 4. E-Commerce: Facts and Figures

§1. DEVELOPMENT OF INTERNET-BASED E-COMMERCE

25. Internet-based Electronic Data Interchange (EDI) solutions are now available and affordable in Hong Kong. They offer a cost-effective alternative to traditional EDI without the need for private networks. Internet-based EDI uses Web Browser interfaces for input and display, and then converts the message to the EDI format for transport via private value added networks (VANs). As a result, smaller firms and temporary business partners which need to participate in the larger organization's EDI network need only invest in a personal computer, a modem and a browser. This is favourable to the majority of merchants in Hong Kong.

26. Over 90% of Hong Kong's businesses are small businesses, almost all of which are family owned. With highly flexible supply networks that allow them to produce goods better, faster and cheaper, many Hong Kong businesses have been transferring to the new area with more advanced technologies. E-commerce, business conducted over the Internet, is growing at a phenomenal rate. Hong Kong has witnessed tremendous progress in its development and adoption of e-commerce during the past years.

§2. TYPES OF E-COMMERCE

27. Two types of e-commerce are generally identified. Business to Consumer (B2C or consumer online transaction) is the sale of goods or services to final consumers over the Internet which can include online stores and sites offering financial services (particularly banking and securities), ticketing services and information services. The major barriers to this type of e-commerce in Hong Kong are concerns about security and whether online retailers are trustworthy and can fulfil their promises. According to a survey conducted by the MasterCard Worldwide in 2009, Hong Kong consumers spent an average of USD 603 on online shopping during the third quarter of 2008 compared to USD 503 during the same period in 2007. In the same survey, 67% of the interviewees indicated that they had the intention to shop online, representing an increase of 10% in 2007.³⁴

28. Another type of e-commerce is the so-called Business-to-Business (B2B), which involves companies doing business with the assistance of the Internet. The EDI has been used for this widely for quite some time in Hong Kong. A number of B2B websites have been established in Hong Kong, usually involving standard commodity trading such as steel, sourcing activities or supply chain management. It is expected that B2B transactions will take up an important position in the coming years. According to Andersen Consulting, Hong Kong companies can save from 5%

34. Hong Kong Economy: Internet, 8 Sep. 2009 (available at www.hktdc.com/info/vp/a/hke/en/1/5/1/1X0060U6/Internet.htm#).

to 20% of their total spending on operating resources by sourcing their supplies through the Internet.³⁵

§3. DEVELOPMENT OF E-COMMERCE VIA MOBILE DEVICES

29. E-commerce conducted via mobile devices such as phones and Personal Digital Assistants (PDAs) is an increasingly common practice for the citizens of Hong Kong. By the year 2006, mobile e-commerce accounted for 15% of the world's online commerce. Such mobile e-commerce shall consist of the following different market sectors:

- (a) automated point-of-sale payments (vending machines, parking metres and ticket machines);
- (b) attended point-of-sale payments (shop counters, taxis);
- (c) mobile-accessed Internet payments (merchant WAP sites);
- (d) mobile-assisted Internet payments (fixed Internet sites using phone instead of credit card);
- (e) peer-to-peer payments between individuals.³⁶

After the catastrophic Asian Tsunami in early 2006, a special fund-raising event with live television coverage was organized to help raise funds for the victims. Mobile phone subscribers on any network could send a blank SMS to a special number and the call was charged at Hong Kong Dollar (HKD) 20, which sum was handed on to the charity to help tsunami victims. This also demonstrated the ease with which payments for goods can be made through mobile phone bills if an online payment system is needed.³⁷

§4. INTERNET BANKING AND BUSINESS

30. Internet banking, online stock trading and Internet shopping are becoming part of the community members' daily lives. Businesses in Hong Kong are comparatively aggressive in the use of the Internet. Financial institutions are the most prominent users of e-commerce, and most banks provide online banking. Online share trading is also widespread allowing investors and brokers to trade securities electronically through the internet, mobile phones and other electronic channels.³⁸ According to figures released by the Census and Statistics Department in December

35. *Profiles of Hong Kong Major Service Industries*, 31 July 2007 (available at <http://info.hktdc.com/main/si/servicei.htm>).

36. For further information, see D. Legard, *M-Commerce to be \$25B Market by 2006*, 22 Mar. 2002 (available at www.computerworld.com.au/article/25480/study_m-commerce_25b_market_by_2006/).

37. R. Milburn, *Hong Kong Leads Asia in Communications Convergence*, in *2007 Official Guide to Communications in Hong Kong*, Commun. Assn. H.K. (available at www.cahk.hk/Publication_Official.asp).

38. *Hong Kong: Telecoms and Technology Report*, in *Industry Report: Telecoms and Technology*, The Economist Intelligence Unit (October 2009).

2009, about 20% of establishments had set up web pages or websites, and 60.5% of establishments had undertaken business activities through electronic means.³⁹

31. The Economist Intelligence Unit ranks Hong Kong's e-business readiness as eighth out of the seventy countries surveyed in 2009. Hong Kong has also embraced smart card technology, with the use of e-money smart cards for payment in transport and retail services in everyday life. The Hong Kong Government introduced smart identity cards in 2003 which can support multiple applications.⁴⁰

§5. E-COMMERCE PROVIDERS

32. Hong Kong was among the first places in Asia to embrace e-commerce. Among the largest e-commerce providers are:

- Tradelink, pioneer of e-commerce, has been promoting paperless trade and fully supporting e-commerce for Hong Kong's businesses since launching its first electronic service in 1997. Tradelink built a superb reputation and recognition across broad industries and became one of the most influential e-commerce service providers in Hong Kong. Its wholly owned subsidiary Digi-Sign Certification Services Ltd appeared to be the first certification authority company in the country, providing a highly secure and trusted environment for its customers to conduct online transactions. Tradelink's Digital Trade and Transportation Network Ltd provides an open, neutral, reliable and trusted community e-platform for trade, logistics and finance industries, enabling fast and efficient communications, document exchanges and information sharing among all scales of businesses. (tradelink-ebiz.com) Tradelink also provides with a range of value-added, transaction-management facilities including message checking, matching and validation, message authentication and security, electronic billing and payments, message archiving and audit-trail services.
- E-shopping, provides customers with the ability to build their own online e-shop, supplying with the choice of over forty Professional e-Shop Design; it also supports with the variety of management services, such as Web Based Easy Control Panel Management, Customer Management, Order and Invoice Management, Product and Category Management, NewsLetter Shipping Management and Discount Management. Payment systems supported by e-Shopping are PayPal, WorldPay, Paydollar, HKBea and PayLink. (homepage.com.hk).
- EZ Trade, offered by a private group, the Hong Kong Article Numbering Association, supplies with EDI solutions that conform to international standards and automate the flow of papers between trading partners.

39. Census and Statistics Department, *Report on 2009 Annual Survey on Information Technology Usage and Penetration in the Business Sector*, 21 Dec. 2009.

40. Chapter 17 of the *Hong Kong Year Book 2008* (available at www.yearbook.gov.hk/2008/en/index.html). Digital 21 Strategy, *Measurement of ICT Development under the 2008 Digital 21 Strategy* (available at www.info.gov.hk/digital21/eng/statistics/stat.html).

- Hongkong Post e-Cert, a recognized Certification Authority, supplies with a digital certificate that are stored in the Smart identity card held by every Hong Kong resident, individuals and organizations.⁴¹
- Global e-Trading Services (www.ge-ts.com.hk) can accept filings of import and export declarations, applications for dutiable commodities permits, electronic submission of cargo manifests and services and bill payments for Port Security Charge.⁴²

§6. OVERVIEW

33. Though the development of e-commerce has been spectacular during the last few years, it is fair to say that e-commerce is still at an early stage in Hong Kong. Only 1.5% of Hong Kong companies have sold goods, services or information through electronic means in 2009 (compared to 1.1% in 2000). Such transactions accounted for 1.69% of their total business receipts in 2008 (compared to 0.17% in 2000).⁴³

Table 5 Industry Data⁴⁴

	2007	2008	2009
Population (million)	6.93	6.98	7.00
Number of Internet users (million)	4.0	4.1	4.3
Internet penetration rate	59.8%	58.8%	60.6%
E-commerce business receipts (HKD million)	43,283	72,616	N.A.

41. *Internet and E-Commerce Industry in Hong Kong*, 3 Aug. 2009 (available at http://ecommercejournal.com/articles/17185_internet_and_e-commerce_industry_in_hong_kong).

42. *Country Commerce: Hong Kong*, The Economist Intelligence Unit (October 2009).

43. Census & Statistics Dept., Report on 2009 Annual Survey on Information Technology Usage and Penetration in the Business Sector, 21 Dec. 2009.

44. Census & Statistics Dept., Report on 2009 Annual Survey on Information Technology Usage and Penetration in the Business Sector, 21 Dec. 2009.

Chapter 5. E-Government Initiatives

§1. BASIC UNDERSTANDING

34. Since the late 1980s, the Hong Kong Government has cooperated with the private sector to ensure the success of e-commerce in Hong Kong. For example, the government took an interest in Tradelink, an e-commerce company that worked to promote submission of trade-related government applications, including export license requests and textile production documents, in electronic form. Since the transfer in 1997, the HKSAR has so far formulated a much more complete structure to realize e-government.

35. E-government is about shifting the focus from the technology to the people who use it. It is about helping individuals, businesses and the community turn possibility into reality. E-government can provide new and easy ways for the community to participate and access a myriad of services and information more efficiently and effectively. Advancements in technology are enabling the government to deliver better services in a more efficient and effective manner.

36. The HKSAR Government, with the purpose of encouraging even wider use of the Internet and e-commerce, is committed to becoming a model user of information technology and has indeed launched the Electronic Tendering System in April 2000 to provide a secured electronic means for handling tender and related matters to support government electronic procurement.⁴⁵ With the initiatives of e-government, several advantages can be achieved:

- (a) services all day every day – counter/office opening hours are a thing of the past;
- (b) ‘one-stop-shop’ – one simple stop opens the door to a variety of services;
- (c) no more queues – go online instead of standing in line;
- (d) comprehensive information; more and faster information at one’s fingertips; and
- (e) more options – many service channels for convenience: be it e-mail, fax, telephone, kiosk, the Internet through computers or mobile devices, or person-to-person by visiting the offices. Customers can make their own choices.

§2. ONGOING EFFORTS

37. The government has launched the Electronic Service Delivery (ESD) Scheme: Government to Citizen (G2C) and Government to Business (G2B), in

45. Info. Tech. & Broadcasting Bureau, *APEC E-commerce Readiness Assessment Guide-A Self-assessment on Hong Kong's Readiness for E-commerce*, October 2000 (available at http://www.ogcio.gov.hk/en/about_us/committees/archive/iac_discuss_papers.htm).

Chapter 2. Legal Protection of Software

158. The computer software industry is widely recognized as an engine of economic development and growth in a modern economy. This is also the case in Hong Kong. The computer software industry in Hong Kong stimulated growth through the creation of highly skilled and highly paid jobs, substantial tax revenues, and the development of tools needed to enable local industries to compete effectively in the global market.¹⁶⁶ In Hong Kong, a computer program is not patentable if it produces a result which is not new.¹⁶⁷

159. Software piracy is a serious problem facing the Hong Kong market. The rate of software piracy in Hong Kong was estimated to have been 64% in 1996, resulting in USD 129 million in direct revenue losses to the local industry.¹⁶⁸ The low prices fuelled high demand; the pirated copies exist throughout all segments of society.¹⁶⁹

160. The Hong Kong Government set out to fight software piracy. Significant steps have been taken to better protect intellectual property rights in Hong Kong. The Customs and Excise Department, containing a special intellectual property rights unit with a 147-member Special Task Force, has also taken strict measures against retail shops selling pirated goods under the title of copyright infringement. The HKSAR Government has further instituted a licensing regime for the import and export of production equipment and has passed a law that requires factories to register and use source identifier codes. The issue of licensing can become more difficult when an implied license is claimed. Such a license can arise out of a course of dealings or to give business efficacy to certain arrangements.¹⁷⁰

161. The Prevention of Copyright Piracy Ordinance (Cap. 544) established a licensing regime to prevent piracy. The Commissioner of Customs and Excise and any Deputy or Assistant Commissioner of Customs and Excise has the authority to issue a license for the present purpose. Only those holding a valid license have the right to manufacture the optical discs, with the exception of an employee of a licensee who manufactures in the course of his or her employment or manufactures for the purpose prescribed by relevant regulations.¹⁷¹ The manufacturing of the optical discs can only take place in the licensed premises.

166. P. Lovelock, *Fighting 21st Century Pirates: The Business Software Alliance in Hong Kong*, Centre for Asian Business Cases 2 (U. H.K. 1999).

167. Section 93(3) of the Patent Ordinance (Cap. 514).

168. BSA and Software Publishers Association (SPA), *Contribution of the Packaged Software Industry to the Hong Kong Economy*, May 1998.

169. D.E. Sanger, *In Pact with China, a Ghost of Japan*, N.Y. Times (27 Feb. 1995).

170. See, e.g., *Saphena Computing Ltd. v. Allied Collection Agencies Ltd.* [1995] FSR 616.

171. Section 3 of the Prevention of Copyright Piracy Ordinance.

162. In granting a license, the Commissioner:

- (a) shall assign to the licensee a manufacturers' code;
- (b) shall impose all of the conditions as may be published by him or her from time to time by notice in the *Gazette* for the purpose of this section; and
- (c) may impose such other conditions as he or she thinks fit for:
 - (i) preventing the manufacture of infringing copies of copyright works;
 - (ii) protecting the rights of copyright owners and other persons to whom rights are conferred under the Copyright Ordinance (Cap. 528);
 - (iii) securing compliance by the licensee with any provisions of this Part or any regulations made for the purposes of this Part;
 - (iv) securing compliance by the licensee with any conditions of the license; and
 - (v) ensuring the effective administration of this Part.¹⁷²

163. A manufacturer's code shall consist of:

- (a) one or more letters or numbers;
- (b) a mark, sign, symbol or device; or
- (c) any combination of letters, numbers, marks, signs, symbols or devices, as determined by the Commissioner.¹⁷³

164. The Ordinance further regulates transfer, display, revocation or cancellation of the license, which formulates a complete licensing regime for optical disc manufacturing. Nevertheless, it is noted that three exceptions have been provided in the Copyright Ordinance permitting legitimate copying of software, the purpose of which is to allow corrections of software malfunctions, and to use and protect the software in the normal course of operation. The three exceptions are:

- (a) a lawful user may make a back-up copy for his or her lawful use;¹⁷⁴
- (b) a lawful user may copy or adapt the program if the copying or adapting is necessary for his or her lawful use;¹⁷⁵ and
- (c) a lawful user may, in particular if it is necessary for the lawful use of the program, copy the program or adapt it for the purpose of correcting errors therein.¹⁷⁶

165. Reverse engineering is a method of reconstructing a computer model from a physical object through dimensional measurement and surface modelling. Can developers disassemble and recompile a program and use what they have learned to create an inter-operable or competing program? According to the second and third exceptions listed above, it might be the case that the owner of the copyright in the

172. Section 5(2) of the Prevention of Copyright Piracy Ordinance.

173. Section 5(3) of the Prevention of Copyright Piracy Ordinance.

174. Section 60(1) of the Copyright Ordinance.

175. Section 61(1) of the Copyright Ordinance.

176. Section 61(2) of the Copyright Ordinance.

computer program will want to reserve to himself or herself the right to make the adaptation, even for the purpose of correcting errors so that any adaptation that is necessary is carried out to the standards the copyright owner would like to see implemented.¹⁷⁷

Chapter 3. Legal Protection of Databases

166. The separate items in the database can be literary works, artistic works or non-works, which are protected by the Copyright Ordinance. Other elements of the database, however, can also be protected under the same Ordinance as a compilation. The Ordinance provides that 'literary work' means any work, other than a dramatic or musical work, which is written, spoken or sung, and includes a compilation of data or other material in any form which, by reason of the selection or arrangement of its contents, constitutes an intellectual creation, including but not limited to a table.¹⁷⁸

167. Databases are protected against misappropriation by third parties, including competitors. Websites may contain secrets in the form of data on log files and information obtained from an audit of what visitors do at a corporate website. For this purpose, databases can be protected as trade secrets. Companies can use encryption and other information security tools to maintain the secrecy of information. If a website developer is building a specialized company database, corporate counsel may wish to draft non-competition and non-disclosure agreements.

168. The Prevention of Copyright Piracy Ordinance is also relevant in the protection of databases. As defined by the Ordinance, 'optical disc' includes any other medium or device on which data may be stored in digital form and be read by means of a laser, and, for greater certainty, includes any such medium or device manufactured for any purpose, whether or not any data readable by means of a laser has been stored thereon. Thus, the license regime established also applies in the present situation.¹⁷⁹ Only those holding a valid license have the right to manufacture the optical discs: constructing databases for commercial purposes.

177. P. Stephenson et al., *Cyberlaw in Hong Kong* 178-180 (2d ed., Lexis Nexis 2007).

178. Section 4(1)(a) of the Copyright Ordinance.

179. Section 2 of the Prevention of Copyright Piracy Ordinance.

Chapter 4. Legal Protection of Computer Chips

169. Computer chips, such as integrated circuits, are protected by intellectual property rights. Protection for these products is available under the Layout-Design (Topography) of Integrated Circuits Ordinance (Cap. 445), which recognizes and protects rights in works affixed in semiconductor chip products for a period of ten years following the date of first commercial exploitation.¹⁸⁰

170. According to the Ordinance, commercial exploitation includes, by way of trade:

- (a) to sell, let for hire or otherwise dispose of;
- (b) to offer or expose for sale or hire or otherwise offer to dispose of or expose for the purpose of disposing of; or
- (c) to import for the purpose of sale, letting for hire or other disposition.¹⁸¹

171. A layout-design (topography) owned by a qualified owner shall be protected as long as it is original in the sense that it is the result of its creator's own intellectual effort and is not commonplace among creators of layout-design (topographies) and manufacturers of integrated circuits at the time of its creations; or in the case of a layout-design (topography) that consists of a combination of elements and interconnections that are commonplace, the combination, taken as a whole, is original in the sense that it is the result of its creator's own intellectual effort and is not commonplace among creators of layout-designs (topographies) and manufacturers of integrated circuits at the time of its creation.¹⁸²

172. Subject to certain exceptions, the owner is able to take civil action to prohibit others from reproducing or distributing his or her layout-design without his or her consent or without payment of royalties. There is no need to register the layout-design right and protection will be automatic.

173. The qualified owner enjoys the right to reproduce, whether by incorporation into an integrated circuit or otherwise, all or part of his or her protected layout-design (topography) or to commercially exploit his or her protected layout-design (topography), an integrated circuit in which his or her protected layout-design (topography) is incorporated or an article that contains an integrated circuit in which his or her protected layout-design (topography) is incorporated. Any other person who performs the above acts shall be deemed as having infringed a qualified owner's right.¹⁸³

180. D.G. Smith, *Due Diligence in Technology Transaction*, Legal, 21 Dec. 2000-Jan. 2001 GC.comm.

181. Section 2 of the Layout-Design (Topography) of Integrated Circuits Ordinance.

182. Section 3(1) of the Layout-Design (Topography) of Integrated Circuits Ordinance.

183. Section 4 of the Layout-Design (Topography) of Integrated Circuits Ordinance.

Chapter 5. Other Intellectual Property Rights in the ICT Sector

§1. TRADEMARK PROTECTION

174. A trademark is in essence a word/picture/logo/three-dimensional object which is used by a trader to denote the origin of a product. It identifies and distinguishes the source of a good or service, protecting words, symbols, slogans, designs, characters, packaging, sounds, smells and colours, as well as product configurations as used in commerce.¹⁸⁴ Distinctiveness is a key element for protection of a trademark.

175. It must not be descriptive for the goods or services or a characteristic of the goods or services. It may not be a geographical name or deceptive and may not be the same as or confusingly similar to an existing trademark used/registered for the same or similar goods or services. Registered trademarks grant to the owner of the mark the exclusive right to use the mark for the goods or services covered by the specification of the registration.

176. An unregistered trademark may be protected if it can be shown that:

- (a) the mark has a reputation established by use;
- (b) the defendant is misrepresenting his or her goods or services as those of the plaintiff;
- (c) damage has been caused to the plaintiff: loss of profit or loss of reputation.

177. The Trademark Ordinance (Cap. 559) is the primary legislation offering protection for trademark, effective as of early 2003, which takes into account technological development and simplifies the application and examination procedures. The range of marks which are registrable as trademarks has broadened, for example by allowing sound and scent to be registered. Assignment and licensing procedures have been simplified, and multi-class applications are allowed.

178. Normally an applicant for a new trademark will be told within about ten months that he or she may advertise his or her proposed mark, provided the criteria laid out in the Trademark Ordinance are met. The public then have a period of two months to object if they have lawful grounds for doing so. Where no objection is received, the mark can normally be registered in a further two months. The whole registration procedure takes about fourteen months if there is no opposition to the mark. The registration is effective from the date of receipt of the valid application by the Registry.

179. The Ordinance provides protection to registered trademarks and also well-known trademarks.¹⁸⁵ It prevents competitors from free-riding on their rivals' marks

184. Section 3 of the Trademark Ordinance.

185. Section 4 of the Trademark Ordinance.

and capitalizing on their rivals' investment of time, money and resources. Infringement may be based on the simultaneous use of two trademarks likely to cause confusion or dilution. Section 18(1)-(4) specifies the infringing acts for trademarks.

180. In Hong Kong, quite a lot of trademark usage is in Chinese. It is important to advertise goods or services in Chinese marks in Hong Kong. Chinese character marks are registrable under the Ordinance, though there is no requirement for a trademark owner to register the Chinese character version of his or her mark. Mere registration of the English version of the trademark does not protect the Chinese counterpart.

181. To prove trademark infringement, a trademark owner must prove that the competing use of the mark is capable of generating a likelihood of confusion concerning the source of its product or that there are forms of dilution.

182. The Trade Descriptions Ordinance (Cap. 362) prohibits the use of false trade description with regard to the sale, import or export of goods in Hong Kong.¹⁸⁶ A 'false trade description' also includes the use of a forged trademark or a mark so nearly resembling a trade mark as to be calculated to deceive. Anyone who applies a forged trademark or a mark so nearly resembling a trade mark as to be calculated to deceive to goods; sells or offers those goods for sale; possesses those goods for the purposes of trade or manufacture shall be deemed to have committed an offence.¹⁸⁷

183. The Internet raises challenging issues for trademark law. When displaying a trademark on the website, one must obtain the permission of the owner. One cannot advertise goods or services using the same or a similar trademark causing damage to the owner of the trademark. The way of defining infringement shall still apply the traditional means. In hyperlinking, the owner of a trademark logo can object to placement of that logo on one's website without permission. The use of a logo as a hyperlink to another website could give rise to copyright infringement, but not if a plain words trademark is used. Any company operating a website needs to understand how trademark law impacts their choice of a domain name, their development of a brand, and their relations with competitors, 'cybersquatters', or other entities who want to exploit their name.

§2. PATENT INFRINGEMENT

184. Patents, property rights possessed or held by an inventor, are granted for inventions fulfilling the conditions of novelty, utility and non-obviousness. A patent can protect products and software. There are three types of patents: utility patents, design patents and plant patents. Since the emergence of e-commerce, new terms have appeared, such as e-commerce patents, Internet process patents and business

186. Section 7 of the Trade Description Ordinance.

187. Section 9(1)-9(2) of the Trade Description Ordinance.

method patents. Software, which produces a technical effect, is frequently classified as a utility patent and may encompass long distance communication networks, voice, video and data communication as well as Internet-related business methods.

185. Hong Kong does not have its own patent examination facilities, but instead re-registers patents registered in other designated patent offices.¹⁸⁸ However, the Hong Kong courts have the power to revoke patents on the application of any person on certain grounds.¹⁸⁹

186. The Patents Ordinance (Cap. 514) offers the criteria for deciding on patentability. The basic standard is that an invention is patentable if it is susceptible of industrial application, is new and involves an inventive step. However, a discovery, scientific theory or mathematical method; or an aesthetic creation; or a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer; or the presentation of information shall be excluded from the scope of inventions as far as a patent or patent application relates to such subject-matter or activities as such.¹⁹⁰

187. Standard patents in the HKSAR have a term of protection of up to twenty years. Applicants seeking protection of a standard patent must make an application to the HKSAR Patents Registry within six months after the date of publication of their patent application at the Chinese, European or United Kingdom Patent Office.

188. The so-called short-term patent with a short commercial viability shall enjoy protection for eight years. Applications are made directly to the HKSAR Patents Registry, and are granted subject to a formality examination. Short-term patent applications in the HKSAR can enjoy Paris Convention priority. According to this Convention, any person who has duly filed an application for a patent in one of the Member States of the Convention shall enjoy, for the purpose of filing in the other Member States, a right of priority of a period of twelve months, which starts from the date of filing of the first application.¹⁹¹

189. The Patents Ordinance offers protection to the patent owner. It allows for the grant of an independent patent in Hong Kong based on the patents granted by the United Kingdom being independent, and would be capable of being tested for validity, rectified, amended, revoked and enforced in Hong Kong.

190. A direct infringer is a person or entity that does not have a license or other authority to use an invention but who nevertheless uses, offers to sell or sells any patented invention during the patent term. The Ordinance prevents direct use of the invention in force by persons other than its proprietor.

188. The designated Patent Offices are those of Mainland China, the United Kingdom and the European Patent Office.

189. Section 91(1) of the Patents Ordinance.

190. Section 93(1)-(3) of the Patents Ordinance.

191. Article 4 of the Paris Convention for the Protection of Industrial Property, of 20 Mar. 1883, as amended on 28 Sep. 1979.

191. Such uses include the following:

- (a) in relation to any product which is the subject matter of the patent, making, putting on the market, using or importing the product; or stocking the product, whether for the purpose of putting it on the market or otherwise;
- (b) in relation to any process which is the subject matter of the patent, using the process, or offering the process for use in Hong Kong when the third party knows, or it is obvious to a reasonable person in the circumstances, that the use of the process is prohibited without the consent of the proprietor of the patent;
- (c) where the invention is a process, then in relation to any product obtained directly by means of that process, putting on the market, using or importing the product; or stocking the product, whether for the purpose of putting it on the market or otherwise.¹⁹²

192. An indirect infringer is a person or entity that actively encourages another person or entity to infringe a patented invention. All third parties without the consent of the patent proprietor shall be prevented from indirect use of the invention, with means, relating to an essential element of that invention, for putting it into effect, when the third party knows, or it is obvious in the circumstances to a reasonable person, that the said means are suitable and intended for putting that invention into effect in Hong Kong.

§3. REGISTERED DESIGN RIGHTS

193. 'Design' means features of shape, configuration, pattern or ornament applied to an article by any industrial process, being features which in the finished article appeal to and are judged by the eye, but does not include a method or principle of construction or features of shape or configuration of an article which are dictated solely by the function which the article has to perform, or are dependent upon the appearance of another article of which the article is intended by the designer to form an integral part.¹⁹³

194. The Registered Designs Ordinance offers the framework for the protection. Applicants can apply for registration of designs directly with the Hong Kong Designs Registry. Designs are subjected to a formality examination before registration. To be registered, a design must be new. The system requires no substantive examination. It is to be noted that a computer program, a protected layout-design (topography), cannot be registered as a design.¹⁹⁴ It only protects the outward appearance of new three-dimensional objects which have aesthetic appeal.

195. Section 31(1) confers the registered owner the exclusive rights to make in Hong Kong or import into Hong Kong for sale or hire, or for use for the purpose of

192. Section 73 of the Patents Ordinance.

193. Section 2(1) of the Registered Designs Ordinance (Cap. 522).

194. Section 8 of the Registered Design Ordinance.

trade or business; or to sell, hire, or offer or expose for sale or hire in Hong Kong, any article in respect of which the design is registered and to which that design or a design not substantially different from it has been applied. Accordingly, when carrying out e-commerce, the importer has to be careful to determine whether the products violate the Ordinance.

§4. TRADE SECRET

196. No specific ordinance exists in Hong Kong covering trade secrets. However, some relevant provisions can be found in the Trade Description Ordinance (Cap. 362). According to section 2 of the Ordinance, 'trade description' includes an indication, direct or indirect, and by whatever means given, of any of the following matters with respect to any goods or parts of goods, that is to say:

- (a) quantity (which includes length, width, height, area, volume, capacity, weight and number), size or gauge;
- (b) method of manufacture, production, processing or reconditioning;
- (c) composition;
- (d) fitness for purpose, strength, performance, behaviour or accuracy;
- (e) any physical characteristics not included in the preceding paragraphs;
- (f) testing by any person and results thereof;
- (g) approval by any person or conformity with a type approved by any person;
- (h) place or date of manufacture, production, processing or reconditioning;
- (i) person by whom manufactured, produced, processed or reconditioned;
- (j) other history, including previous ownership or use.

197. Thus, trade secrets can be implied in any of the above categories. The Ordinance further prohibits the illegal disclosure of trade secrets obtained by him or her in premises, which he or she has entered, to any other person unless such disclosure was made under a court order or for the purpose of performing functions under this ordinance.¹⁹⁵ Such a disclosure can constitute an offence. False trade descriptions, forged trademarks and misstatements in respect of goods supplied in the course of trade are also prohibited by the Ordinance: any person who disposes of or has in his or her possession any die, block, machine, or other instrument for the purpose of making, or applying to goods a false trade description commits an offence unless he or she proves that he or she acted without intent to defraud.¹⁹⁶

195. Section 17(2) of the Trade Description Ordinance.

196. Section 7 of the Trade Description Ordinance.

Chapter 6. Internet Domain Name Registration

§1. GENERAL INTRODUCTION

198. Every computer that is Internet-enabled will have both an Internet Protocol (IP) address and a domain name. An IP is a numeric address given to each computer, server, workstation or other equipment that is connected to the Internet. The IP addresses consist of four sets of numbers each between one and 255. Since it is very difficult to remember such numerical IP addresses, a domain name system was established. Thus, the domain name system was initially established to help identify a specific website. One advantage to registering a distinctive domain name is that consumers tend to guess when trying to find a particular company's website.

199. The best domain names are easy to remember and help brand a company's products or services. People can analyse a domain name and learn something about the host computer or its owner. Thus, companies pay much attention to the registration of the appropriate domain name, as failure to procure the proper identity may result in a loss of potential customers, business partners or other opportunities. Company websites need to register their domain names with one of the Internet Corporation for Assigned Names and Numbers (ICANN) accredited registrars. The ICANN was created as a non-profit public sector corporation to serve the operational standards of the Internet.

200. Generally, when registering, applicants must produce evidence that:

- (a) the registration is complete and accurate;
- (b) the domain name does not infringe trademarks of third parties;
- (c) the domain name is not registered for unlawful purposes;
- (d) the domain name owner will not knowingly use the domain name to violate any laws or regulations.

201. Domain names are hierarchical and consist of two levels: Top Level Domain Name (TLD) and Second Level Domain Name (SLD). There are two types of TLDs: generic TLDs (gTLDs) and country-code TLDs (ccTLDs). Formerly there were seven gTLDs, but now additional suffixes have been added. Nearly every country in the world now has ccTLDs and each has its own variation on accepted naming convention with two characters representing the country of origin. The domain name '.hk' is allocated for Hong Kong.

§2. REGISTRATION IN HONG KONG

202. Formerly, the Hong Kong Network Information Centre was in charge of domain name registration in Hong Kong. It operated under the auspices of the Joint Universities Computer Centre (JUCC). An inauguration ceremony of the Hong Kong Internet Registration Corporation Limited (HKIRC) on 22 April 2002 marked the successful completion of the transfer of the domain name administration

functions from the JUCC to the HKIRC, which is a non-profit, non-statutory corporation responsible for the administration of Internet domain names under '.hk' country-code top level domain since that date.

203. The government endorsed the application of the HKIRC to the ICANN for ICANN's re-delegation to administer '.hk' domain name registration in Hong Kong. The tripartite relationship among the ICANN, the government and the HKIRC has been set out in a Memorandum of Understanding signed by the HKIRC and the government. The HKIRC provides registration services through its wholly owned subsidiary, Hong Kong Domain Name Registration Company Limited (HKDNR), for domain names ending with 'com.hk', 'org.hk', 'gov.hk', 'edu.hk' and 'net.hk',¹⁹⁷ and any other SLDs to be introduced.

203.1. The HKIRC announced in December 2009 that '.' registrations will be offered free to all '.hk' customers in the second half of 2010 with the aim of helping them develop their sites with full Chinese domain names. This is to increase the popularity of Chinese domain names and to maximize benefits to the Internet community, and ultimately to sustain the status of Hong Kong as a digital city.¹⁹⁸

204. The HKDNR will not scrutinize applications for domain names, other than in respect of technical restrictions and application qualifications. It will also not make judgments as to whether the registration or use of a domain name infringes the rights of any third parties.

§3. REGISTRATION RULES

205. To qualify for registration, an applicant must be one of the following legal entities in Hong Kong: a commercial entity (.com.hk), a non-profitable organization (.org.hk), an entity managing network infrastructure and services (.net.hk), a bureau or department of the HKSAR Government (.gov.hk), or educational institution (.edu.hk). To prove its physical presence in Hong Kong, the applicants are required to show evidence of a relevant registration document, such as the Business Registration Certificate. The application for and any subsequent registration of a Chinese domain name is deemed to include all possible combinations of the Chinese domain name using different Chinese character variants (in the same sequential order as the order designated in the application). This is so even though only the Chinese domain name is actually applied (including the all-traditional and all-simplified Chinese versions of the Chinese domain name), and none of its other different Chinese character variants may be activated for use.¹⁹⁹

197. Hong Kong Internet Registration Corporation Limited (HKIRC), at www.hkdnr.net.hk.

198. HKIRC to launch '.' full Chinese domain name in 2010 Available free to '.hk' corporations and users and further upholding the status of Hong Kong as a leading digital city, 21 Dec. 2009 (available at https://www.hkirc.hk/content.jsp?id=63#!/&in=/company_info/pressrelease.jsp?item=193).

199. Article 5.1 of the Hong Kong Domain Name Registration Company Limited Rules for.hk Domain and sub-domains, Version 5.0, effective 25 Feb. 2008.

206. Individuals were not allowed to register domain names before 21 February 2003. However, a new domain name for individuals (.idv.hk) was launched by that date. All Hong Kong ID cardholders aged 11 or above (parents/guardians shall jointly apply for registrants from age 11 through 18) may apply for their exclusive domain names ending with '.hk'.

207. The same entity can register for more than one domain name, and domain names can be transferred from one entity to another entity of the same type, as long as the recipient can also show a valid presence in Hong Kong.

208. The applicant can fill in the online application form at the HKDNR website for the purpose of application. An agent, such as an ISP, can undertake the application process on behalf of the applicant. However, the applicant should make sure that its Business Registration Certificate is used and its e-mail address is listed as the Administrative Contact.

209. Subject to the Soft Launch Period Rules, domain names are registered on a first-come, first-served basis. To register the name, the applicant must have a bona fide intention to use a name on a regular basis on the Internet. Failure to do so for a period of ninety days or more may result in deregistration of the domain name. The applicant must warrant that the use of the registration of the name does not interfere with or infringe the right of any third-party in any jurisdiction with respect to trademark, service mark, trade name, company name or any other intellectual property rights.

210. To register an '.hk' domain name, the applicant needs to first check for the availability of the domain name and prepare the relevant documentary proof of the Business Registration Certificate. Such an examination ensures that there is no previous registration of the same domain name. The online registration process is available at the website of the HKDNR.²⁰⁰

211. Registration processing time will depend on two factors: application action and verification action. Once the online application has been submitted, the HKDNR shall process the registration upon receipt of a copy of documentary proof and the applicable registration fee. After all required documents and fees have been received and verified, a successful e-mail notification will be sent out within three working days. However, if the required documents and payment are not received, an e-mail reminder will be sent out on the fourteenth day from receipt of the application notifying the applicant of the outstanding items. If all the requirements are still not received within the next three subsequent days, the registration will be cancelled.

212. Registration must be renewed annually and the registrant has the responsibility to keep the information supplied up-to-date.

200. See www.hkdnr.net.hk.

213. The registration fee for a one-year contract is HKD 200 (HKD 150 for '.idv.hk'; HKD 250 for '.hk'). A Hong Kong ISP can arrange registration for a small administrative fee. The HKDNR is a non-profit company and pays no dividends to its shareholders. The fees charged are to cover the operational costs, which shall be subjected to periodical review. It will employ the latest technology to deliver cost-effective service to its customers.

§4. COMBATING CYBERSQUATTING

214. As a result of the potential profits of domain names, illegal activities in this sector have also surfaced. Cybersquatting has been so far the most prevalent one. The policy of first-come, first-served allows a registrant to register any desired name as long as it is available at the time of registration. Consequently, nothing guarantees that a trademark owner will be able to register the desired domain name for business. Cybersquatting refers to the activity of registering domain names in bad faith for making profits. Such a domain name has nothing to do with the registrant, who does not intend to make commercial use of the name; the purpose of such a registration is to register and sell. The most common form of cybersquatting is the abusive practice of registering domain names of famous companies and seeking to sell their names back for a profit. The plaintiff can bring an action for trademark infringement or passing off in the courts.²⁰¹ It is essential for a plaintiff to show that:

- (a) it has acquired a goodwill or reputation attached to the goods or services which it supplies in the mind of the purchasing public by association with the identifying characteristics;
- (b) the defendant misrepresents to the public, whether intentionally or not, that goods or services offered by the defendant are the goods or services of the plaintiff; and
- (c) damage is suffered or likely to be suffered by reason of such misrepresentation.²⁰²

215. To combat such activities, the ICANN has formulated new policies for resolving such disputes. Hong Kong has also taken an active attitude in providing dispute resolution services through the Hong Kong International Arbitration Centre.²⁰³

201. *Sun Microsystems v. Lai Sun Hotels* [2000] 2 HKLRD 616.

202. *Reckitt & Colman Products Ltd. v. Borden Inc. & Others* [1990] ALL ER 873.

203. See, e.g., the case of *Lycos*, HKIAC Arbitration Panel Decision 0107-0002.