

For Information

Legislative Council Panel on Information Technology and Broadcasting

2006 Surveys on IT Usage and Penetration in the Household and Business Sectors

Purpose

This paper briefs Members on the results of the 2006 surveys on IT Usage and Penetration in the Household and Business Sectors in Hong Kong.

Background

2. The Government has been conducting annual surveys since Year 2000 to assess the usage and penetration of IT in the community and business sectors. The statistics so obtained have been useful references in the formulation of strategies and initiatives in promoting IT development and adoption in Hong Kong.

3. The Census and Statistics Department conducted the surveys during May to August 2006. Results of the two surveys were released on 30 November 2006. Background information about the conduct of the two surveys is at **Annex A**. Summaries of the results are at **Annexes B and C**. Salient points are set out in the paragraphs below.

Household Survey

4. The Household Survey reveals that personal computers (PCs) and Internet connections were very common amongst households. The related figures of 2005 and 2006 are as follows:

	2005	2006
% of households with PC at home amongst all households in Hong Kong	70.1	71.7
% of households with PC at home connected to Internet amongst all households with PC at home in Hong Kong	92.2	93.6
% of households with PC at home connected to Internet amongst all households in Hong Kong	64.6	67.1

5. The usage of PC and Internet services was also prevalent amongst persons aged 10 and over in Hong Kong. The survey showed that the rates of using PC were higher amongst younger persons, better-educated persons and students. The related figures of 2005 and 2006 are as follows:

	2005	2006
% of persons aged 10 and over who had used PC in the 12 months before the survey amongst all persons aged 10 and over	58.8	62.9
% of persons aged 10 and over who had used Internet service in the 12 months before the survey amongst all persons aged 10 and over	56.9	60.8

6. The utilisation of electronic business services was also high. Examples of electronic business services covered in the Household Survey include the use of:

- Octopus card
- Automatic Teller Machine (ATM)
- Easy Pay System (EPS)
- Interactive Voice Response System (IVRS)
- Payment by Phone Service (PPS)
- online searching for financial information/information on goods and services/information on job vacancies, etc.

The related figures of 2005 and 2006 are as follows:

	2005	2006
% of persons aged 15 and over who had used one or more types of electronic business services for personal matters in the 12 months before the survey amongst all persons aged 15 and over	97.3	97.4

7. Regarding the usage of online purchasing services, the adoption rate is similar to that in 2005:

	2005	2006
% of persons aged 15 and over who had used one or more types of online purchasing services for personal matters in the 12 months before the survey amongst all persons aged 15 and over	8.6	8.8

8. Use of online Government services and browse of Government websites via Internet service were also more common. The related figures of 2005 and 2006 are as follows:

	2005	2006
% of persons aged 10 and over who had used online Government services for personal matters in the 12 months before the survey amongst all persons aged 10 and over (corresponding figures for persons aged 15 and over)	N/A* (29.4)	34.6 (34.2)
% of persons aged 10 and over who had browsed Government websites/searched for or downloaded Government information online via non-mobile web device in the 12 months before the survey amongst all persons aged 10 and over who had used Internet service via non-mobile web device.	37.4%	40.9%

* Since the respondent base is extended to age 10 and over for this part of survey starting from 2006, previous figures are not available.

9. The awareness levels of information security in 2005 and 2006 are as follows:

	2005	2006
% of persons aged 15 and over who had digital certificates amongst all persons aged 15 and over having knowledge in using PC	14.7	15.2
% of households with PC at home which had installed anti-virus software amongst all households with PC at home	82.7	84.1
% of households with PC at home which had set password for access to the PC amongst all households with PC at home	36.7	35.3
% of households with PC at home which had been infected by virus in the 12 months before the survey amongst all households with PC at home	32.5	24.7
% of persons aged 10 and over who had heard of computer virus amongst all persons aged 10 and over	85.5	85.8
% of persons aged 10 and over who had heard of hacking amongst all persons aged 10 and over	77.9	76.6
% of persons aged 10 and over who had set password for access to their computer files related to personal matters in the 12 months before the survey amongst all persons aged 10 and over who had used PC in that 12-month period	30.4	23.5
% of persons aged 10 and over who had encrypted their computer files related to personal matters in the 12 months before the survey amongst all persons aged 10 and over who had used PC in that 12-month period	7.1	5.3

10. The above findings reveal that:
- The penetration and usage of PC and Internet in the households had been maintained at a high level. Hong Kong is now one of the cities with the highest PC penetration and Internet service usage in the world;
 - There is also a noticeable increase in the use of e-government services by the public. It is encouraging to see Hong Kong becoming a digitally inclusive society; and
 - The Government will continue to collaborate with IT bodies and non-government organisations to encourage different sectors of the community to adopt IT.

Establishment Survey

11. According to the Establishment Survey, the percentage of establishments using PCs in 2006 was same as that in 2005. Meanwhile, the percentage of establishments having Internet connection increased. Related figures of 2005 and 2006 are as follows:

	2005	2006
% of establishments using PC	60.5	60.5
% of establishments having Internet connection	54.7	55.9

12. Analysed by size of the establishments, the related figures of 2005 and 2006 are as follows:

	2005	2006
% of large establishments using PC	97.5	99.2
% of medium establishments using PC	88.9	85.9
% of small establishments using PC	56.4	56.2
% of large establishments having Internet connection	91.5	94.7
% of medium establishments having Internet connection	83.6	80.7
% of small establishments having Internet connection	50.5	51.7

Note: Please refer to paragraph 3 of Annex A for definitions of large, medium-sized and small establishments.

13. Among the major sectors, use of PCs was most common in the financing, insurance, real estate and business services sector (88.1%) and the wholesale, retail, import/export trades, restaurants and hotels sector (60.6%). The percentage of establishments with Internet connection was also highest in these two sectors, at 87.1% and 55.6% respectively.

14. The percentage of all establishments having Web pages or Web sites also increased in 2006:

	2005	2006
% of establishments having Web pages/Web sites	15.5	17.5

15. Analysed by size of establishments, the figures in 2005 and 2006 are as follows:

	2005	2006
% of large establishments having Web pages/Web sites	72.3	74.7
% of medium establishments having Web pages/Web sites	34.6	37.0
% of small establishments having Web pages/Web sites	12.0	13.5

16. All establishments having Web pages/Web sites provided information about their establishments and the products and services they offered in their Web pages/Web sites. Nevertheless, only 8.7% of the establishments having Web pages/Web sites used them as channels to facilitate online ordering of their products and services.

17. Other figures of electronic business, through electronic means including Internet, Interactive Response System through telephone lines/mobile telecommunications network and designated private network, of 2005 and 2006 are as follows:

	2005	2006
% of establishments having conducted electronic business activities	53.7	56.2
• % of establishments having ordered or purchased goods, services or information	15.4	11.7
• % of establishments having received goods, services or information	52.3	54.7
• % of establishments having sold goods, services or information	1.8	1.5
• % of establishments having delivered goods, services or information	15.7	18.0

18. Business receipts# through electronic means have shown substantial increase (by some 59%) between 2004 and 2005:

	2004	2005
Business receipts from selling goods, services or information through electronic means	\$27.6 billion	\$43.9 billion
Business receipts from selling through the Internet as a % of total business receipts received from selling through electronic means	40.0	18.2
Business receipts from selling through electronic means as a % of total business receipts received	0.49	0.64

Business receipts' figures of 2004 and 2005 are used for comparison, as figures for 2006 are only available after the end of the reference period.

19. The related figures on information security of 2005 and 2006 are as follows:

	2005	2006
% of establishments which had suffered from computer attacks in the 12 months before enumeration	35.1	25.1
% of establishments having suffered from computer attack which had suffered from virus infection	97.4	98.5
% of establishments having suffered from computer attack which took various types of action after the attack	94.0	97.5
% of establishments with PCs which had adopted security technologies to protect their computer systems and information	90.8	92.3
% of establishments having adopted security technology to protect their computer system and information which had used anti-virus software as security technology	97.5	97.7
% of establishments which had digital certificates	14.5	14.1

20. The above findings reveal that:

- PC usage in the business sector as a whole had maintained steady while Internet usage had increased, indicating that there are still rooms for increase in IT penetration in the business sector;
- Among the major sectors, the high penetration rates in the financing, insurance, real estate and business services sector reflect Hong Kong's competitiveness in its key economic sectors;

- Moreover, there had been a considerable growth of 59.0% in monetary terms in the business receipts from selling goods, services or information through electronic means; and
- Other e-commerce activities such as receipt / delivery of goods, services or information through electronic means in the business sector had also maintained a steady growth over the past year.

Comparison with Other Economies

21. Comparisons of IT penetration in Hong Kong with other economies are set out in **Annex D** (page 1 of 2) for Member's reference. As other economies may not carry out IT surveys as frequently as Hong Kong, we have used the most up-to-date statistics of these economies available for comparison. The statistics obtained from different sources generally show that Hong Kong compares well in the household IT penetration and usage with other advanced economies.

22. On the contrary, our survey findings (**Annex D**, page 2 of 2) showed that Hong Kong's business IT penetration and usage are relatively lower than other advanced economies. The Government will continue with its efforts and strive to help the industry, especially the small and medium enterprises, to exploit the full potential and benefits of IT in advancing their business interests. Since 2004, six different industry sectors, namely travel agents, private medical doctors, drugstores, logistics, accounting and beauty services providers, have benefited under the sector-specific programmes launched by the Government to encourage the wider adoption of IT and e-commerce. The Government will launch the new round of sector-specific programmes in early 2007 to drive the development and adoption of e-business applications and business process reengineering that help sustain the competitiveness of businesses. Under the next wave of e-government, we have soft launched a new One-Stop Access Portal, named GovHK, in September 2006 to facilitate better access to online government information and services.

Office of the Government Chief Information Officer
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**Background Information
on the Household and Establishment IT Surveys**

The Household Survey was based on a scientific sample of households that represent the population of Hong Kong. The survey successfully enumerated some 10 000 households, within which some 27 500 persons aged 10 and over were interviewed.

2. The Establishment Survey was based on a sample of some 4 700 establishments covering all industry sectors except the agriculture and fishing sector and the mining and quarrying sector. Specifically, the following industry sectors were covered: manufacturing; electricity and gas; construction; wholesale, retail and import/export trades, restaurants and hotels; transport, storage and communications; financing, insurance, real estate and business services; and community, social and personal services.

3. The establishments were categorised according to their employment size as at end-March 2006 into large, medium and small establishments. Large establishments referred to establishments with 100 or more persons engaged for the manufacturing sector, and 50 or more persons engaged for other industry sectors. Small establishments referred to those with less than 10 persons engaged regardless of sector. The others were regarded as medium establishments.

4. Since results of the surveys are subject to both sampling and non-sampling errors, care should be taken in comparing the 2005 and the 2006 figures, as a minor difference might not necessarily be statistically significant.

5. More detailed results of the Household Survey and the Establishment Survey are set out in the “Thematic Household Survey Report No. 27: Information Technology Usage and Penetration” and the “Report on 2006 Annual Survey on Information Technology Usage and Penetration in the Business Sector” respectively. The two reports are both in bilingual form. The publications are available for download (in PDF format) free of charge. The print versions of the publications have already been put on sale. Copies have been sent to Members of the Legislative Council Panel on Information Technology and Broadcasting.

Summary of Survey Results**Household Survey on Information Technology Usage and Penetration**

<u>Data Item</u>	<u>2005</u>	<u>2006</u>	<u>Change*</u>
Information technology penetration amongst households			
◆ Percentage of households with personal computer (PC) at home amongst all households in Hong Kong	70.1%	71.7%	+1.6%
◆ Percentage of households with PC at home connected to Internet amongst all households with PC at home in Hong Kong	92.2%	93.6%	+1.4%
◆ Percentage of households with PC at home connected to Internet amongst all households in Hong Kong	64.6%	67.1%	+2.5%
Information technology usage amongst household members			
◆ Percentage of persons aged 10 and over who had used PC in the twelve months before the survey amongst all persons aged 10 and over	58.8%	62.9%	+4.1%
◆ Percentage of persons aged 10 and over who had used Internet service in the twelve months before the survey amongst all persons aged 10 and over	56.9%	60.8%	+3.9%
Usage of electronic business services			
◆ Percentage of persons aged 15 and over who had used one or more types of electronic business services for personal matters in the twelve months before the survey amongst all persons aged 15 and over	97.3%	97.4%	+0.1%
Usage of online purchasing services			
◆ Percentage of persons aged 15 and over who had used one or more types of online purchasing services for personal matters in the twelve months before the survey amongst all persons aged 15 and over	8.6%	8.8%	+0.2%
Usage of online Government information and services			
◆ Percentage of persons aged 10 and over who had used online Government services for personal matters in the twelve months before the survey amongst all persons aged 10 and over	N/A **	34.6%	-
	(29.4%)	(34.2%)	(+4.8%)
(corresponding figures for persons aged 15 and over)			
◆ Percentage of persons aged 10 and over who had browsed Government websites/searched for or downloaded Government information online via non-mobile web device in the twelve months before the survey amongst all persons aged 10 and over who had used Internet service via non-mobile web device.	37.4%	40.9%	+3.5%
* refers to change in % points			
** since the respondent base is extended to age 10 and over for this part of survey starting from 2006, previous figures are not available.			

Summary of Survey Results
Annual Survey on Information Technology
Usage and Penetration in the Business Sector

<u>Data Item</u>	<u>2005</u>	<u>2006</u>	<u>Change*</u>
<i>(As a % of all establishments)</i>			
Personal Computer (PC) Usage			
◆ Establishments using personal computer	60.5%	60.5%	-
Internet Usage			
◆ Establishments having Internet connection	54.7%	55.9%	+1.2%
Web Site Usage			
◆ Establishments having Web page/Web site	15.5%	17.5%	+2.0%
Electronic Business			
◆ Establishments having conducted electronic business activities	53.7%	56.2%	+2.5%
◆ Establishments having <i>ordered or purchased</i> goods, services or information through electronic means	15.4%	11.7%	-3.7%
◆ Establishments having <i>received</i> goods, services or information through electronic means	52.3%	54.7%	+2.4%
◆ Establishments having <i>sold</i> goods, services or information through electronic means	1.8%	1.5%	-0.3%
◆ Establishments having <i>delivered</i> goods, services or information through electronic means	15.7%	18.0%	+2.3%
	<u>2004</u>	<u>2005</u>	<u>Change</u>
◆ Business receipts from selling goods, services or information through electronic means	\$27.6 billion	\$43.9 billion	+\$16.3 billion
◆ Above business receipts as a % of total business receipts received	0.49%	0.64%	+0.15%*

* refers to change in % points

Comparison of IT Penetration with Other Economies

A. Household PC and Internet Penetration

Economy	Survey reference period	Percentage of households with PC at home[#]	Percentage of households with PC at home connected to the Internet[#]
1. Korea	2005	79%	75%
2. Japan	2004	78%	56%*
3. Singapore	2005	74%	66%
4. Hong Kong	2006	72%	67%
5. Australia	2005	67%	56%
6. USA	2003	62%	55%
7. UK	2003	55%	45%

As a % of all households in the respective economies

* Including PCs, cellular phones, PDAs, Internet-capable video games consoles, TVs, etc.

Source: Government web sites of different economies (Korea: www.mic.go.kr; Japan: www.stat.go.jp;
Singapore: www.ida.gov.sg; Australia: www.abs.gov.au; USA: www.census.gov;
UK: www.statistics.gov.uk).

B. PC and Internet Penetration in Business Sector

Economy	Survey reference period	Percentage of firms with PC[#]	Percentage of firms with PC with Internet connection[#]	Percentage of firms with web page or website[#]
1. Denmark	2005	98% [*] (2001) [*]	97% [*]	82% [*]
2. Japan	2005	94% [^]	86% [^]	86% [@]
3. UK	2005	93% ⁺⁺	89% [*]	70% [*]
4. Canada	2005	89% (2004)	82%	38%
5. Australia	2004 - 2005	89%	77%	27%
6. Singapore	2005	77%	71%	37%
7. Hong Kong	2006	61%	56%	18%
<i>Persons Engaged 5+</i>	-	82%	78%	34%
<i>Persons Engaged 10+</i>	-	88%	83%	43%
<i>Persons Engaged 100+</i>	-	99%	98%	82%

Notes: Persons engaged include working proprietors, active partners, unpaid family workers and all employees.

As a % of all establishments covered in the respective surveys

[^] Establishments with at least 5 employees

^{*} Establishments with at least 10 employees

[@] Establishments with at least 100 employees

⁺ Include workstations, terminals etc.

Source: Government web sites of different economies (Denmark: www.dst.dk;

Japan: www.johotsusintokei.soumu.go.jp; UK: www.statistics.gov.uk; Canada: www.statcan.ca;

Australia: www.abs.gov.au; Singapore: www.ida.gov.sg).