

**For discussion
on 6 April 2006**

**Legislative Council Panel on
Information Technology and Broadcasting**

**2005 Surveys on IT Usage and Penetration
in the Household and Business Sectors**

Purpose

This paper briefs Members on the results of the 2005 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 April to August 2005. Results of the two surveys were released on 9 December 2005. 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 2004 and 2005 are as follows:

	2004	2005
% of households with PC at home amongst all households in Hong Kong	71.1	70.1
% of households with PC at home connected to Internet amongst all households with PC at home in Hong Kong	91.3	92.2
% of households with PC at home connected to Internet amongst all households in Hong Kong	64.9	64.6

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 2004 and 2005 are as follows:

	2004	2005
% of persons aged 10 and over who had used PC in the 12 months before the survey amongst all persons aged 10 and over	59.5	58.8
% 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	56.4	56.9

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)
- e-cash
- Easy Pay System (EPS)
- Payment by Phone Service (PPS)
- online searching for financial information/information on goods and services/information on job vacancies, etc.

The related figures of 2004 and 2005 are as follows:

	2004	2005
% 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	96.5	97.3

7. Regarding the usage of online purchasing services, the adoption rate remains relatively low:

	2004	2005
% 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	7.1	8.6

8. Use of online Government services was common, but there was room for growth. The related figures of 2004 and 2005 are as follows:

	2004	2005
% of persons aged 15 and over who had used online Government services for personal matters in the 12 months before the survey amongst all persons aged 15 and over	28.5	29.4

9. The awareness levels of information security in 2004 and 2005 are as follows:

	2004	2005
% of persons aged 15 and over who had digital certificates amongst all persons aged 15 and over having knowledge in using PC	12.4	14.7
% of households with PC at home which had installed anti-virus software amongst all households with PC at home	77.6	82.7
% of households with PC at home which had set password for access to the PC amongst all households with PC at home	34.4	36.7
% 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	40.0	32.5
% of persons aged 10 and over who had heard of computer virus amongst all persons aged 10 and over	87.6	85.5

% of persons aged 10 and over who had heard of hacking amongst all persons aged 10 and over	82.3	77.9
% 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	21.0	30.4
% 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	6.3	7.1

10. The above findings reveal that the penetration and usage of PC and Internet in the households have been maintained at a high level. Hong Kong is now one of the cities with the highest PC and broadband penetration in the world. These provide an environment conducive to the greater use of e-government services and e-business in general. It is encouraging to see Hong Kong becoming a digitally inclusive society. 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 percentages of establishments using PCs and having Internet connection in 2005 have increased over 2004 as follows:

	2004	2005
% of establishments using PC	58.4	60.5
% of establishments having Internet connection	50.4	54.7

12. Analyzed by size of the establishments, the related figures of 2004 and 2005 are as follows:

	2004	2005
% of large establishments using PC	97.4	97.5
% of medium establishments using PC	83.7	88.9
% of small establishments using PC	54.5	56.4

% of large establishments having Internet connection	89.7	91.5
% of medium establishments having Internet connection	76.2	83.6
% of small establishments having Internet connection	46.4	50.5

13. Amongst the major sectors, use of PCs was most common in the financing, insurance, real estate and business services sector (87.2%) and the wholesale, retail, import/export trades, restaurants and hotels sector (63.6%). The percentage of establishments with Internet connection was also highest in these two sectors, at 81.8% and 58.1% respectively.

14. The percentage of all establishments having Web pages or Web sites has not shown substantial increase in the 2005 survey:

	2004	2005
% of establishments having Web pages/Web sites	14.8	15.5

15. Analysed by size of establishments, the figures in 2004 and 2005 are as follows:

	2004	2005
% of large establishments having Web pages/Web sites	67.7	72.3
% of medium establishments having Web pages/Web sites	39.2	34.6
% of small establishments having Web pages/Web sites	10.6	12.0

16. All establishments having Web pages/Web sites provided information about the establishments and the products and services offered in their Web pages/Web sites. Only 10.1% 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 2004 and 2005 are as follows:

	2004	2005
% of establishments having ordered or purchased goods, services or information in the 12 months before enumeration	11.7	15.4
% of establishments having received goods, services or information in the 12 months before enumeration *	53.0	52.3
% of establishments having sold goods, services or information in the 12 months before enumeration **	1.3	1.8
% of establishments having delivered goods, services or information in the 12 months before enumeration	15.3	15.7

* only restricted to those products that could be transmitted through electronic media, such as software packages and songs.

** an establishment was regarded to have sold its goods, services or information through electronic means only if it offered them and accepted orders or purchases that were placed completely through electronic means.

18. Business receipts# through electronic means have shown substantial increase (by some 30%) between 2003 and 2004:

	2003	2004
Business receipts from selling goods, services or information through electronic means	\$21.2 billion	\$27.6 billion
% share in respect of selling through the Internet	64.6	40.0
Above business receipts as a % of total business receipts received	0.42	0.49

Business receipts' figures of 2003 and 2004 are used for comparison, as figures for 2005 are only available after the end of the reference period.

19. The related figures on information security of 2004 and 2005 are as follows:

	2004	2005
% of establishments which had suffered from computer attacks in the 12 months before enumeration	44.6	35.1
% of establishments having suffered from computer attack which had suffered from virus infection	98.5	97.4
% of establishments having suffered from computer attack which took various types of action after the attack	95.3	94.0
% of establishments with PCs which had adopted security	87.0	90.8

technologies to protect their computer systems and information		
% of establishments having adopted security technology to protect their computer system and information which had used anti-virus software as security technology	94.9	97.5
% of establishments which had digital certificates	14.8	14.5

20. The above findings reveal a wider adoption of IT within the business sector that:

- PC and Internet usage in the business sector had increased steadily, indicating an upward trend of IT penetration in the business sector, with fairly high PC and Internet penetration rates amongst our large and medium establishments;
- There is also a noticeable increase in the use of PC and Internet amongst small establishments;
- Amongst 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;
- There had been a considerable growth of 30.2% in monetary terms in the business receipts from selling goods, services or information through electronic means from \$21.2 billion in 2003 to \$27.6 billion in 2004; and
- Other e-commerce activities such as ordering/purchase and receipt 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 similar programmes for other business sectors in future so that the SMEs can derive more benefits through IT adoption. Under the next wave of e-government, we are determined to serve the community by setting up a new One-Stop Access Portal in mid 2006 to facilitate better access to e-government services.

Office of the Government Chief Information Officer
April 2006

**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 10 100 households, within which some 28 100 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 classified according to their employment size as at end-March 2005 as 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 2004 and the 2005 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. 23: Information Technology Usage and Penetration" and the "Report on 2005 Annual Survey on Information Technology Usage and Penetration in the Business Sector" respectively. The two reports are both in bilingual form and have already been put on sale. Copies have been sent to Members of the Legislative Council Panel on Information Technology and Broadcasting.

Annex B

Summary of Survey Results

Household Survey on Information Technology Usage and Penetration

<u>Data Item</u>	<u>2004</u>	<u>2005</u>	<u>Change*</u>
Information technology penetration amongst households			
◆ Percentage of households with personal computer (PC) at home amongst all households in Hong Kong	71.1%	70.1%	-1.0%
◆ Percentage of households with PC at home connected to Internet amongst all households with PC at home in Hong Kong	91.3%	92.2%	+0.9%
◆ Percentage of households with PC at home connected to Internet amongst all households in Hong Kong	64.9%	64.6%	-0.3%
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	59.5%	58.8%	-0.7%
◆ 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	56.4%	56.9%	+0.5%
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	96.5%	97.3%	+0.8%
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	7.1%	8.6%	+1.5%
Usage of online Government services			
◆ Percentage of persons aged 15 and over who had used online Government services for personal matters in the twelve months before the survey amongst all persons aged 15 and over	28.5%	29.4%	+0.9%

* refers to % point change

Annex C

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

<u>Data Item</u>	<u>2004</u>	<u>2005</u>	<u>Change</u>
<i>(As a % of all establishments)</i>			
Personal Computer (PC) Usage			
◆ Establishments using personal computer	58.4%	60.5%	+2.1%*
Internet Usage			
◆ Establishments having Internet connection	50.4%	54.7%	+4.3%*
Web Site Usage			
◆ Establishments having Web page/Web site	14.8%	15.5%	+0.7%*
Electronic Business			
◆ Establishments having <i>ordered or purchased</i> goods, services or information through electronic means	11.7%	15.4%	+3.6%*^
◆ Establishments having <i>received</i> goods, services or information through electronic means	53.0%	52.3%	-0.7%*
◆ Establishments having <i>sold</i> goods, services or information through electronic means	1.3%	1.8%	+0.6%*^
◆ Establishments having <i>delivered</i> goods, services or information through electronic means	15.3%	15.7%	+0.4%*
	<u>2003</u>	<u>2004</u>	
◆ Business receipts from selling goods, services or information through electronic means	\$21.2 billion	\$27.6 billion	+6.4 billion
◆ Above business receipts as a % of total business receipts received	0.42%	0.49%	+0.07%*

* refers to % point change

^ owing to rounding, there may be a slight discrepancy

Comparison of IT Penetration with Other Economies

A. Household PC and Internet Penetration

Economy	Period during which survey was conducted	Percentage of households with PC	Percentage of households with PC connected to the Internet
1. Korea	2004	77%	70%
2. Singapore	2004	74%	65%
3. Japan	2002	72%	81%*
4. Hong Kong	2005	70%	65%
5. Australia	2003	66%	53%
6. USA	2001	57%	51%
7. UK	2003	55%	45%

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

Annex D
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B. PC and Internet Penetration in Business Sector

Economy	Period during which survey was conducted	Percentage of firms with PC	Percentage of firms with PC with Internet connection	Percentage of firms with web page or website
1. Denmark	2004	98% (2001)*	97%*	81%*
2. Japan	2003	94%^	83%^	78% [@]
3. Canada	2004	87% (2003)	82%	37%
4. Australia	2003 - 2004	85%	74%	25%
5. Singapore	2004	83%	76%	N.A.
6. UK	2003	70%	62%	31%
7. Hong Kong	2005	61%	55%	15%
<i>Persons Employed 5+</i>	-	83%	76%	29%
<i>Persons Employed 10+</i>	-	90%	85%	41%
<i>Persons Employed 100+</i>	-	99%	96%	77%

^ Establishments with at least 5 employees

* Establishments with at least 10 employees

@ Establishments with at least 100 employees

Source: from government web sites of different economies