# ANNUAL SURVEY ON INFOCOMM USAGE IN HOUSEHOLDS AND BY INDIVIDUALS FOR 2010



Infocomm Development Authority of Singapore 10 Pasir Panjang Road #10-01 Mapletree Business City Singapore 117438 Republic of Singapore

Tel: (65) 6211-0888 Fax: (65) 6211-2222 Website: www.ida.gov.sg

Copyright © 2011 IDA

All rights reserved. No part of this material may be stored in a retrieval system, transmitted, or reproduced in any way, including but not limited to photocopy, photograph, magnetic or other record, without the prior agreement and written permission of the Infocomm Development Authority of Singapore.

Notwithstanding the above, part or parts of this publication may be used with the proper acknowledgement of its source without having to first obtain the prior agreement and written permission of the Infocomm Development Authority of Singapore.

# **CONTENTS**

PAF	RT I: SURVEY OBJECTIVE AND METHODOLOGY	4
1.	Introduction	5
2.	Survey Objective	5
3.	Methodology	5
4.	Concepts and Definitions	5
5.	Notes on Data	6
PAF	RT II: SURVEY FINDINGS - INFOCOMM ACCESS IN HOUSEHOLDS	7
A1.	Computer Access within Households	9
A1.	1 Home Computer Access	9
A1.	2 Households with Access to Two or More Computers at Home	11
	3 Main Reason for Not Having Access to a Home Computer	
A2.	Internet Access within Households	13
A2.	1 Home Internet Access	13
A2.	2 Main Reason for Not Having Internet Access at Home	14
A2.:	3.Internet Connection within Households	15
	RT III: SURVEY FINDINGS - INFOCOMM ADOPTION AND USAGE BY INDIVIDUALS	
B1.	Computer Access and Usage By Individuals	18
	1 Computer Access	
B1.:	2 Computer Usage	19
	Internet Access and Usage by Individuals	
	1 Internet Access	
B2.:	2 Internet Usage	
B3.		
B4.	Online Shopping	
B5.		
B6.	Internet Security at Home	41
	RT IV: ANNEX	
C1.	Distribution of Primary Internet Activities	44
T/	ABLES	
	le A2.1: Main Reason for Not Having Access to a Computer at Home, 2006 – 2010	
Tab	le A2.2: Main Reason for Not Having Internet Access at Home, 2006 – 2010	14
	le B2.1: Main Reason for Not Using the Internet, 2008 – 2010	
Tab	le B3.1: Primary Internet Activities Engaged by Internet Users, 2008-2010	30
	le B4.1: Top Ten Goods or Services Purchased Online, 2010	
	le B4.2: Goods or Services Purchased Online, 2008-2010	
	le B4.3: Payment Methods for Goods or Services Purchased Online, 2010	
	le B4.4: Main Reason for Not Shopping Online, 2010	
	le B5.1: Top Ten Internet Activities on Mobile Infocomm Equipment, 2010	
	le B6.1: Reasons for Not Using Internet Security Software, 2008 – 2010	
Tab	le C1.1: Distribution of Primary Internet Activities by Residents, 2010	44

# **CHARTS**

Chart A1.1: Computer Access at Home, 2006 – 2010	9
Chart A1.2: Computer Access at Home by Housing Type, 2006 – 2010	9
Chart A1.3: Home Computer Access by Type of Household, 2008 – 2010	10
Chart A1.4: Number of Computers in Households, 2006 - 2010	11
Chart A1.5: Access to Two or More Computers at Home by Housing Type, 2008 - 2010	11
Chart A2.1: Households with Internet Access at Home, 2006 – 2010	13
Chart A2.2: Equipment Used to Access to the Internet at Home, 2008 - 2010	13
Chart A2.3: Households with Internet Access at Home by Housing Type, 2006 – 2010	14
Chart A2.4: Households with Internet and Broadband, 2006 - 2010	15
Chart A2.5: Type of Internet Connection within Households, 2008 - 2010	15
Chart B1.1: Access to a Computer at Any Location, 2006 – 2010	18
Chart B1.2: Access to a Computer at Any Location by Age Group, 2010	
Chart B1.3: Most Recent Usage of a Computer at Any Location, 2010	
Chart B1.4: Proportion of Computer Users, 2006 - 2010	20
Chart B1.5: Computer Users by Age Group, 2010	20
Chart B1.6: Location of Computer Usage, 2010	21
Chart B1.7: Frequency of Computer Use, 2010	22
Chart B2.1: Access to Internet at Any Location, 2006 – 2010	
Chart B2.2: Access to Internet at Any Location by Age Group, 2010	
Chart B2.3: Most Recent Usage of the Internet at Any Location, 2010	
Chart B2.4: Proportion of Internet Users, 2006 - 2010	26
Chart B2.5: Internet Users by Age Group, 2010	26
Chart B2.6: Frequency of Internet Use, 2010	
Chart B2.7: Average Duration of an Internet Session, 2010	
Chart B2.8: Location of Internet Usage, 2010	29
Chart B4.1: Proportion of Online Shoppers, 2006 – 2010	32
Chart B4.2: Online Shoppers by Age Group, 2010	
Chart B4.3: Last Online Purchase Made, 2010	
Chart B4.4: Value of Online Purchases, 2008-2010	
Chart B5.1: Portable Equipment Used by Age Group, 2010	37
Chart B5.2: Used Portable Equipment to Connect to the Internet Wirelessly, 2010	
Chart B5.3: Wireless Connection Type by Age Group	
Chart B6.1: Usage of Internet Security Software, 2008 – 2010	41
Chart B6.2: Experience of Virus Attack, 2008 – 2010	42

PART I:	
SURVEY OBJECTIVE	AND METHODOLOGY

#### 1. Introduction

The 2010 Annual Survey on Infocomm Usage in Households and by Individuals ("Survey") is the 15<sup>th</sup> in its series conducted by IDA since the 1990s.

## 2. Survey Objective

The objective of the Survey is to assess the extent of infocomm adoption in Singapore resident households and residents.

# 3. Methodology

Data was collected from 5,000 resident households and 5,000 residents aged at least 7 years old via face-to-face interviews conducted from October 2010 to April 2011. The sample of addresses was provided by the Singapore Department of Statistics based on a random selection using a two-stage stratified design by geographical location and housing type.

## 4. Concepts and Definitions

The definitions of the key terms used in this report are as follows:

Term	Definition
Household	Household refers to a group of two or more persons living together in the same house and sharing common food or other arrangements for essential living. It also includes a person living alone or a person living with others but having his own food arrangements. Although persons may be living in the same house, they may not be members of the same household.
	A resident is a Singapore Citizen or Permanent Resident.
Resident	For the purpose of this report, since the survey only collects data from residents aged at least 7 years old, the term "residents" used in the report pertain to Singapore Citizens or Permanent Residents aged at least 7 years old unless otherwise specified.
Resident Household	Resident households are households with at least one resident.
School-going children	School-going children refer to current students who are enrolled between primary education and pre-university / junior college education level.
Computer	Computer includes desktops, laptops and notebooks.
Computer access at home	Refers to having access to functional computers at home regardless of ownership (i.e. they may be owned by the household or employers and used at home).

Term	Definition
Computer ownership	Computer ownership refers to computer owned by household.
Private housing	Private housing refers to landed properties, private condominiums and apartments.
Public housing	Public housing refers to HDB flats.
Broadband	Internet connection speeds greater than or equal to <u>256 kbps (kilobits per second)</u> .
ADSL	Asymmetric Digital Subscriber Line (ADSL), a form of DSL is a data communications technology that enables data transmission over copper telephone lines.
Cable modem	A modem designed to operate over <u>cable TV</u> lines and enables Internet access.
Dial-up	Dial-up access is a form of data access (mainly used for Internet access) in which the client uses a modem to connect a computer to a telephone line and dials into an Internet service provider's (ISP) node to establish a modem-to-modem link, which is then routed to the Internet.

#### 5. Notes on Data

Past years' data are included for comparison purposes where available. Due to rounding, the sum of individual figures may not add up to the total or 100%.

# PART II: SURVEY FINDINGS - INFOCOMM ACCESS IN HOUSEHOLDS

# **Summary**

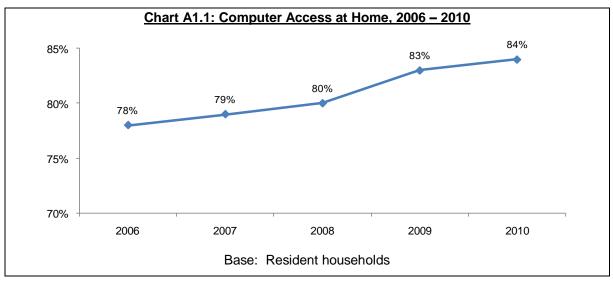
- In 2010, about 84% of households had access to at least one computer at home.
- Amongst households with school-going children, 96% had computer access at home.
- About 82% of households had Internet access at home. Almost all of such households connected to the Internet using broadband.
- A larger proportion of households in private housing continued to have access to the computer and the Internet compared to households in public housing.
- "No need to use" and "Lack of skills" remained the most commonly cited reasons by households for not having access to a computer or Internet at home.

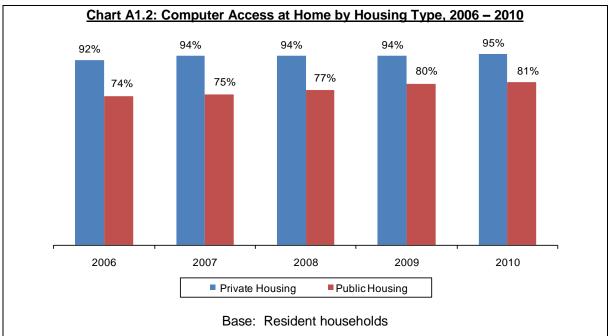
# **A1.** Computer Access within Households

#### **A1.1 Home Computer Access**

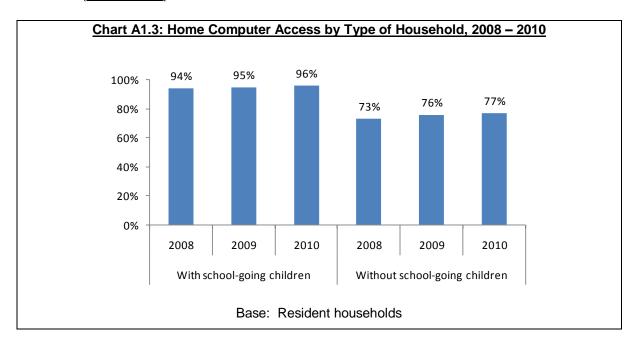
#### Access to at least one computer at home

In 2010, about 84% of resident households had access to at least one computer at home (<u>Chart A1.1</u>). Home computer access remained higher for households in private housing than for households in public housing (<u>Chart A1.2</u>).



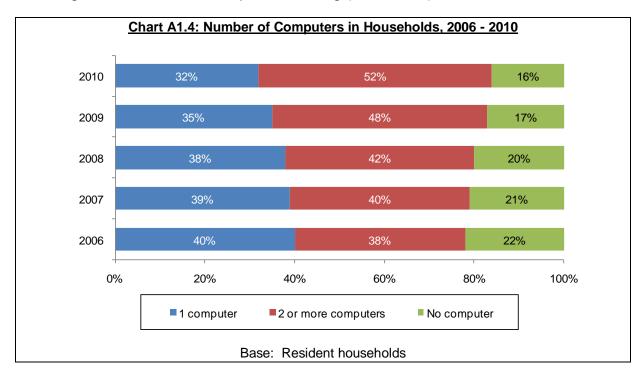


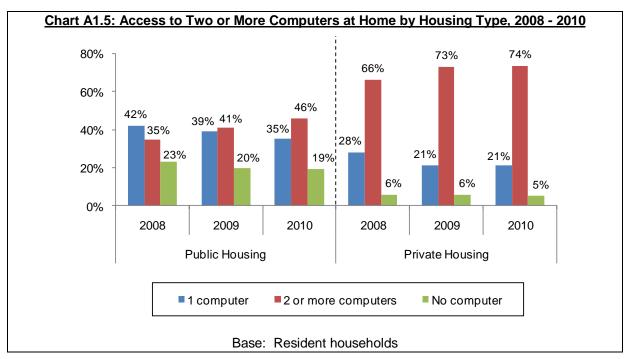
Amongst households with school-going children, 96% had computer access at home (Chart A1.3).



#### A1.2 Households with Access to Two or More Computers at Home

An increasing proportion of households have access to two or more computers at home (<u>Chart A1.4</u>); this is more prevalent in households in private housing than in households in public housing (<u>Chart A1.5</u>).





#### A1.3 Main Reason for Not Having Access to a Home Computer

The top two reasons listed by households for not having access to a computer at home remained "No need to use" and "Lack of skills" (<u>Table A2.1</u>).

<u>Table A2.1: Main Reason for Not Having Access to a Computer at Home,</u> 2006 - 2010

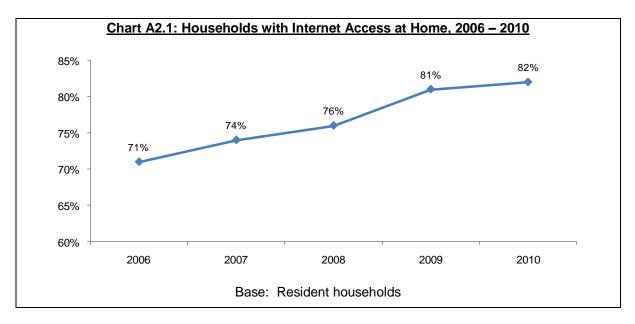
No.	Main Reason	2006	2007	2008	2009	2010
1	No need to use	43%	46%	38%	39%	40%
2	Lack of skills	20%	29%	32%	32%	34%
3	Old age is a barrier to learn computer skills	8%	7%	14%	14%	14%
4	Too costly to purchase a computer	17%	11%	13%	13%	10%
5	Children are too young	4%	2%	3%	2%	1%

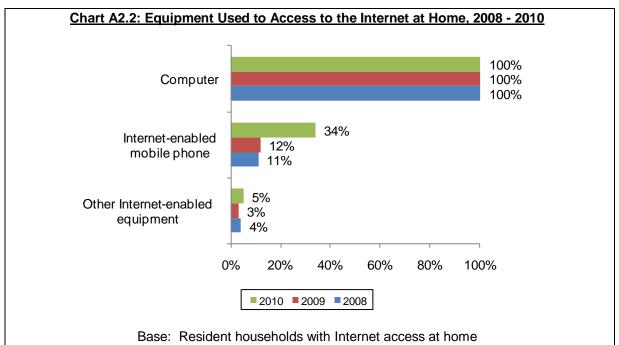
Base: Resident households that did not have access to a computer at home

#### A2. Internet Access within Households

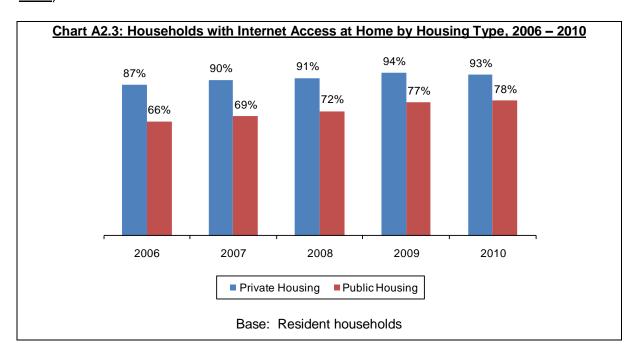
#### **A2.1 Home Internet Access**

In 2010, about 82% of households had Internet access at home (<u>Chart A2.1</u>) and all accessed to the Internet using the computer (<u>Chart A2.2</u>).





Mirroring the trend for computer access, home Internet access for households in private housing was higher than that for households in public housing (<u>Chart A2.3</u>).



#### A2.2. Main Reason for Not Having Internet Access at Home

Similar to the reasons for not having computer access at home, "Lack of interest/no need to use" and "Lack of knowledge/skills/confidence" remained the most commonly cited reasons by households for not having Internet connection at home (Table A2.1)

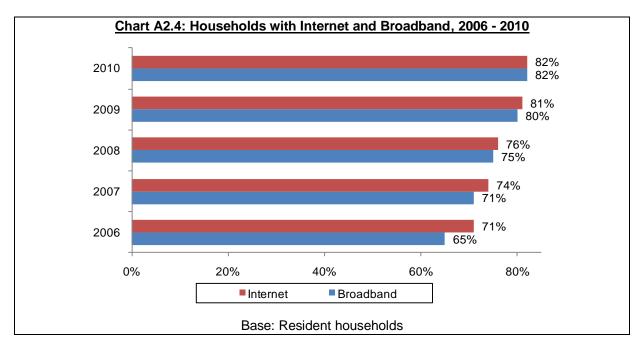
Table A2.2: Main Reason for Not Having Internet Access at Home, 2006 - 2010

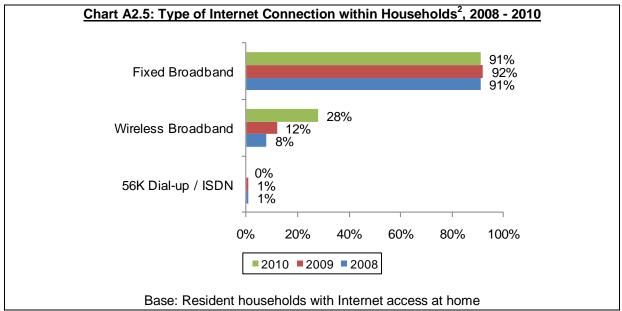
No.	Main Reason	2006	2007	2008	2009	2010
1	Lack of interest/No need to use	43%	55%	50%	53%	55%
2	Lack of knowledge/skills/confidence	18%	11%	23%	23%	24%
3	Have access to Internet elsewhere	7%	9%	13%	9%	10%
4	Costly equipment costs	14%	8%	8%	8%	5%
5	Subscription to the Internet is too costly	4%	3%	4%	5%	4%

Base: Resident households that did not have access to Internet at home

#### A2.3. Internet Connection within Households

Amongst households with access to the Internet at home, most of them connected to the Internet via a broadband<sup>1</sup> connection (<u>Chart A2.4</u>). Fixed broadband continued to be the main type of broadband connection in households (<u>Chart A2.5</u>).





<sup>&</sup>lt;sup>1</sup> Broadband refers to Internet connection speeds greater than or equal to 256 kbps (kilobits per second).

<sup>&</sup>lt;sup>2</sup> Households with access to the Internet via both broadband and narrowband had been categorised as those with <u>broadband</u> Internet access. Please note that some households may have more than one type of broadband connection at home.

# PART III: SURVEY FINDINGS - INFOCOMM ADOPTION AND USAGE BY INDIVIDUALS

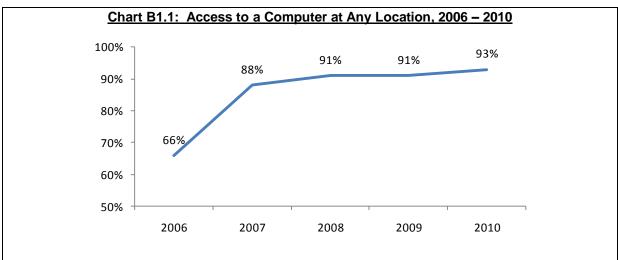
### **Summary**

- In 2010, about 72% and 71% of residents used the computer and Internet respectively, a marginal increase from previous years.
- About 7 in 10 Internet users used the Internet at least once a day and about half spent an average of 30 minutes to less than 2 hours in a typical Internet session.
- The most commonly engaged primary Internet activity was for communication (e.g. sending or receiving emails, social networks and instant messaging) followed by getting information.
- About 42% of residents aged 15 years and above had made purchases online before with the highest proportion in age group 25-34 years.
- More than 6 in 10 residents aged 15 to 34 years who had used portable infocomm equipment connected wirelessly on their equipment.
- Communication topped the list of online activities conducted on mobile equipment.
- About 61% of home Internet users did not experience a virus attack in 2010, an increase from 55% in 2009.

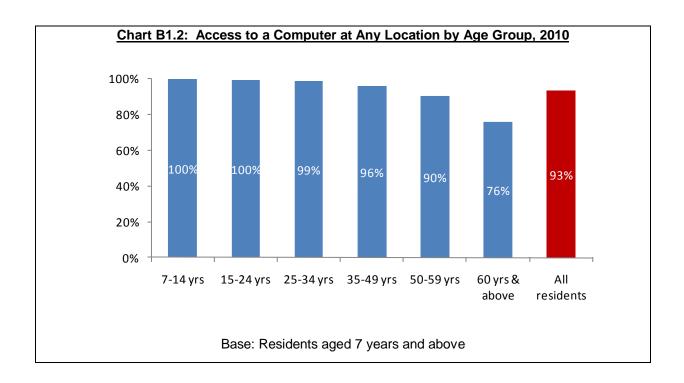
#### **B1. COMPUTER ACCESS AND USAGE BY INDIVIDUALS**

#### **B1.1 Computer Access**

Overall, about 93% of residents had access to computers at any location in 2010, a marginal increase from the previous year (<u>Chart B1.1</u>). Computer access decreases with age with the lowest access in age group "60 years and above" (<u>Chart B1.2</u>).

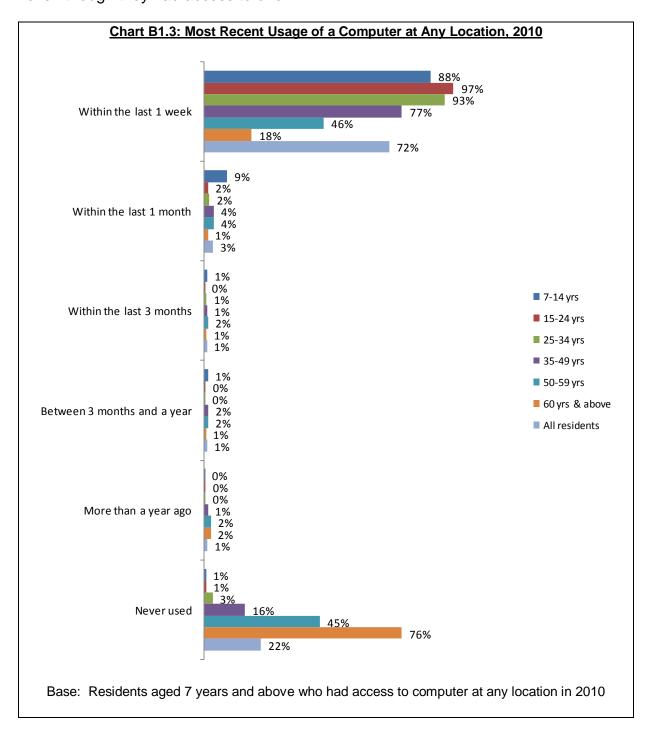


Base: For 2006–2007, residents aged 15 years and above; for 2008 and after, residents aged 7 years and above



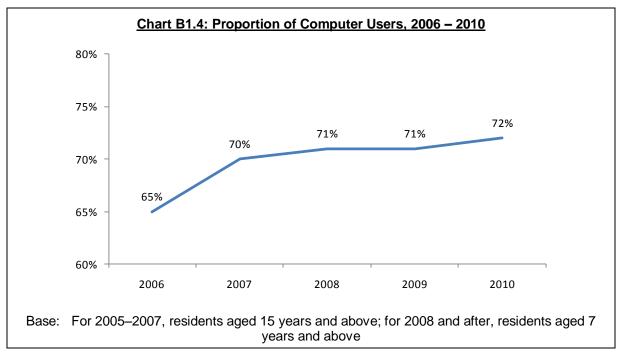
#### **B1.2 Computer Usage**

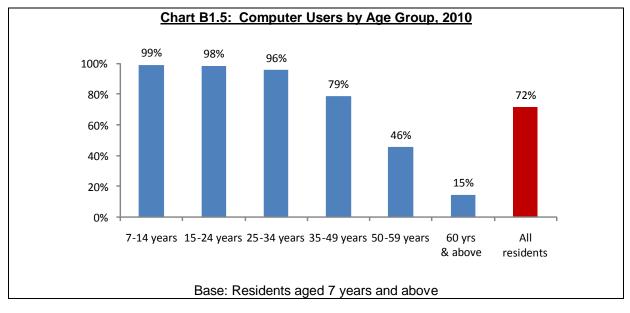
Among residents who had computer access, 78% used one and 72% used them within the last one week (<u>Chart B1.3</u>). High proportions of residents in age groups "50-59 years" and "60 years and above" had never used a computer before even though they had access to one.



#### Computer Users by Age Group

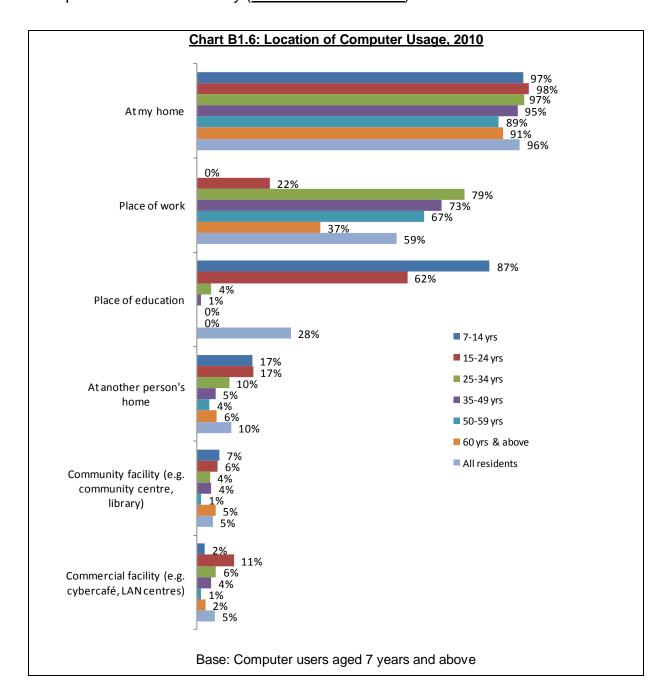
About 72% of residents used the computer in 2010 (defined as computer users); the proportion of computer users decreases with age (<u>Charts B1.4 and B1.5</u>).

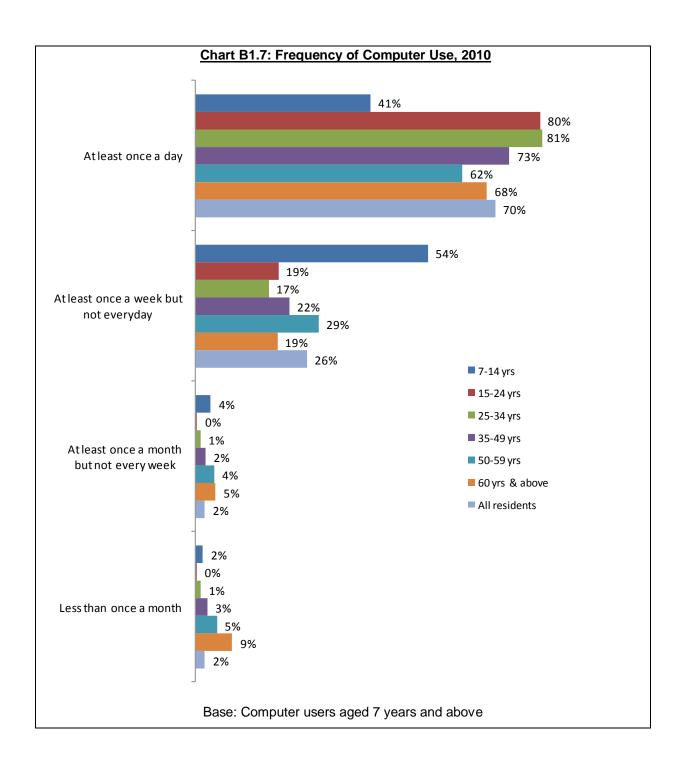




#### Location and Frequency of Computer Use

Computer usage was largely at home and about 7 in 10 users used the computer at least once a day (Charts B1.6 and B1.7)

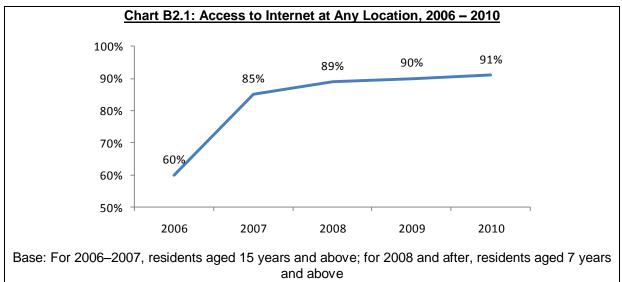




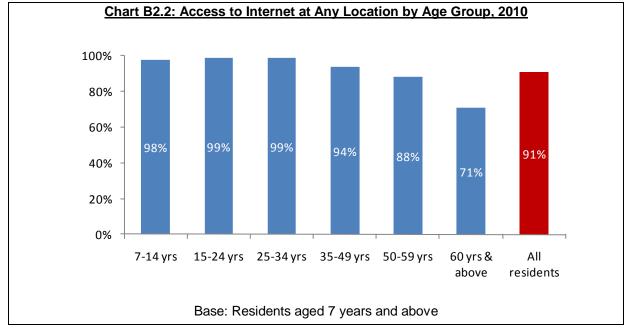
#### **B2. INTERNET ACCESS AND USAGE BY INDIVIDUALS**

#### **B2.1 Internet Access**

Similar to computer access, Internet access increased slightly in 2010 and it decreases with age (Charts B2.1 and B2.2).



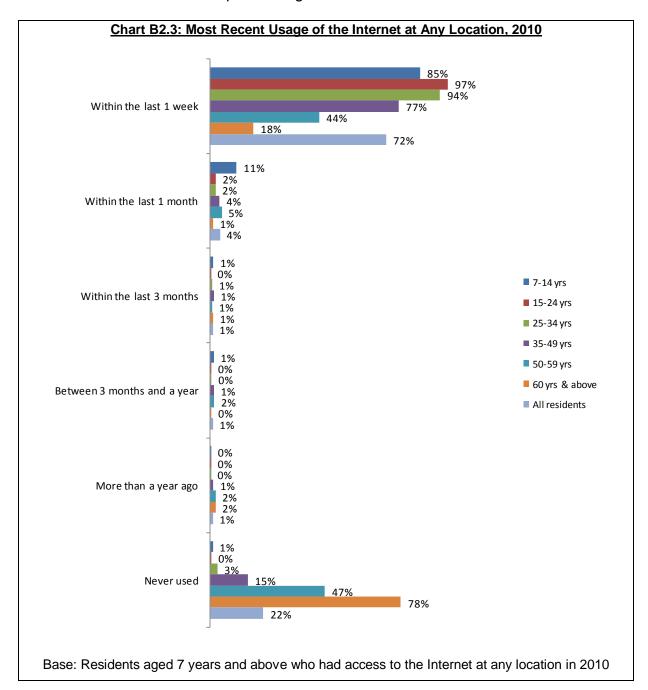
Base: For 2006–2007, residents aged 15 years and above; for 2008 and after, residents aged 7 years and above



#### **B2.2 Internet Usage**

#### Most recent usage of the Internet at any location

Amongst residents who had Internet access, 72% had used the Internet within the last one week (<u>Chart B2.3</u>). About 78% of residents aged 60 years and above, and almost half (47%) of the residents in age group "50-59 years" had not used the Internet before despite having access.



#### Main reason for not using the Internet

The two most commonly cited reasons for not using the Internet remained as "Lack of knowledge, skills or confidence" and "Not interested / No need to use" (<u>Table B2.1</u>).

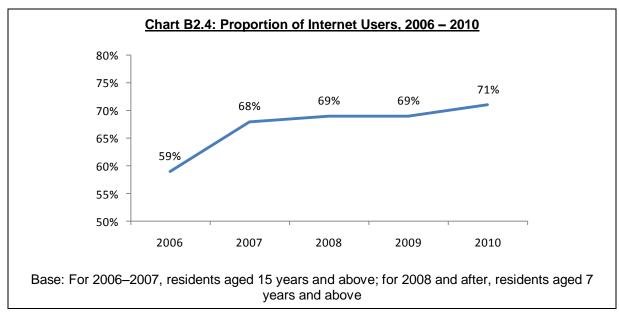
Table B2.1: Main Reason for Not Using the Internet, 2008 – 2010

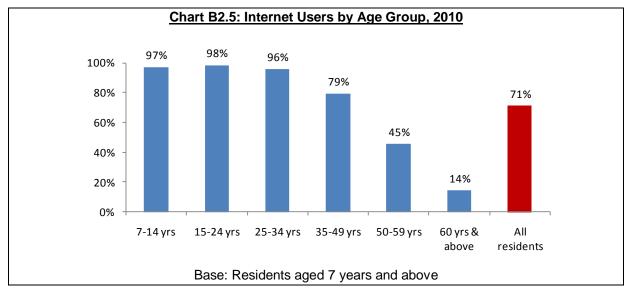
No.	Main reason for not using the Internet	2008	2009	2010
1.	Lack of knowledge, skills or confidence	52%	51%	56%
2.	Not interested / No need to use	45%	47%	42%
3.	Equipment costs are too high	1%	0%	1%
4.	Concern about exposure to inappropriate or harmful content	1%	0%	1%
5.	Access subscription too costly	1%	0%	0%

Base: Residents aged 7 years and above who had never used the Internet before

#### Internet users by age group

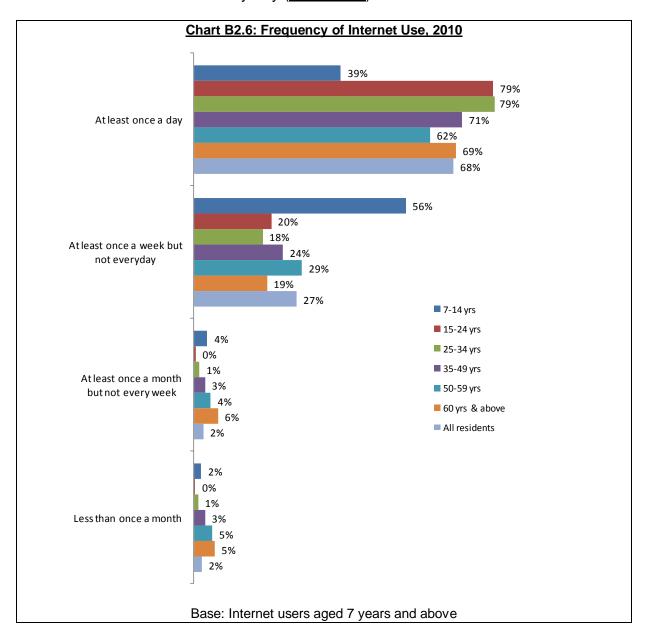
About 71% of residents used the Internet in 2010 (defined as Internet users) with the highest proportion of users in age groups "7-14 years" and "15-24 years" (Charts B2.4 and B2.5).





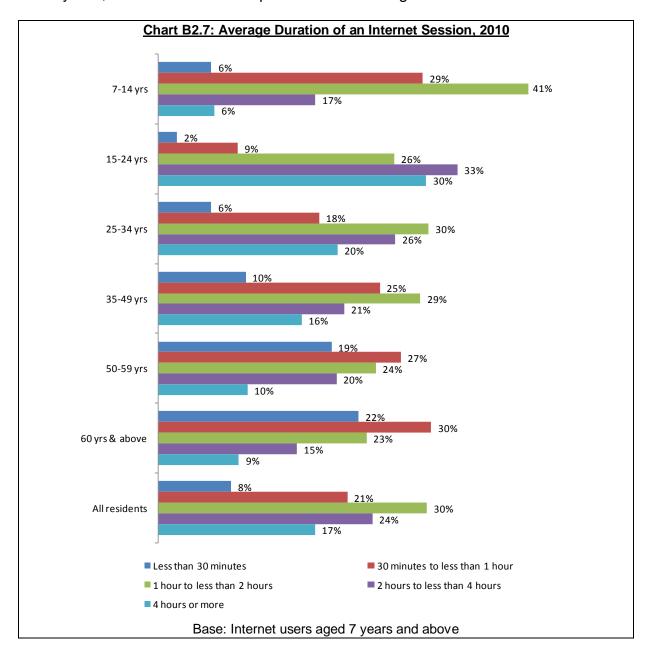
#### Frequency of Internet Use

More than 6 in 10 Internet users used the Internet at least once a day except users aged 7-14 years old where a higher proportion of them used the Internet at least once a week but not every day (Chart B2.6).



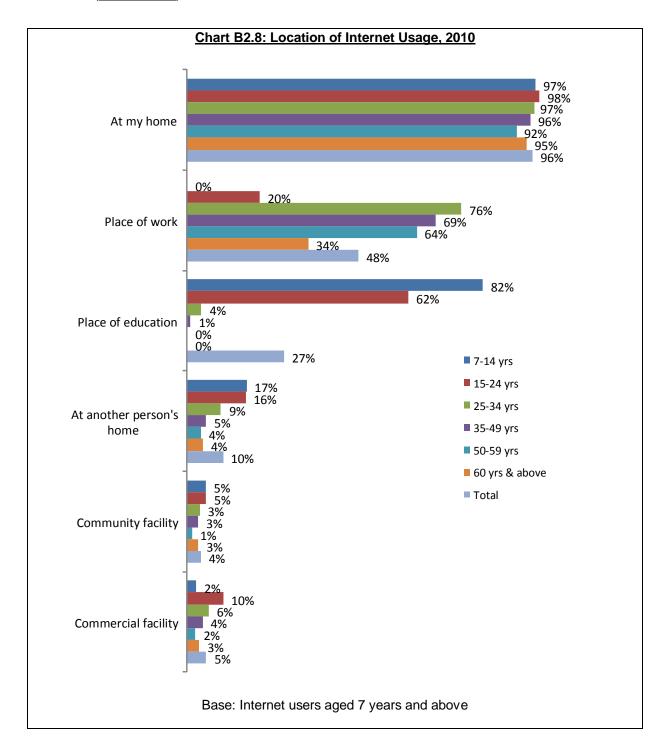
#### **Duration of Internet Use**

About half of the Internet users spent an average of 30 minutes to less than 2 hours on the Internet during a typical session (<u>Chart B2.7</u>). Amongst residents aged 7-14 years, about 7 in 10 users spent a similar average duration online.



#### Location of Internet Use

Home and place of work were the two most common places to access to the Internet (Chart B2.8).



#### **B3. INTERNET APPLICATIONS AND SERVICES**

#### Primary Internet activities<sup>3</sup>

<u>Table B3.1</u> shows the different primary Internet activities engaged in by Internet users over the last three years. The proportion of users increased for most Internet activities, with the top three primary Internet activities for all residents being communicating, getting information and leisure activities<sup>4</sup>.

Table B3.1: Primary Internet Activities Engaged by Internet Users, 2008-2010

	All Residents						
Primary Internet activity group	2008	2009	2010				
Communicating	70%	72%	74%				
Getting information	42%	37%	46%				
Leisure activities	39%	39%	45%				
Education or learning activities	12%	12%	18%				
Online banking	15%	13%	15%				
Creating content	11%	11%	12%				
Dealing with government organisations / public authorities	7%	7%	6%				
Purchasing or ordering goods or services	2%	3%	4%				

Base: Internet users aged 7 years and above

\_

<sup>&</sup>lt;sup>3</sup> A primary Internet activity refers to an activity that is engaged in during all or most of the Internet sessions.

<sup>&</sup>lt;sup>4</sup> The types of detailed activities under each primary activity group can be found in the Annex A.

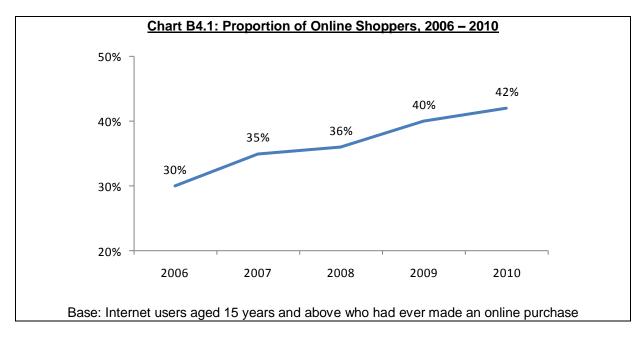
	7-14 yrs			15-24 yrs			25-34 yrs		
Primary Internet activity group	2008	2009	2010	2008	2009	2010	2008	2009	2010
Communicating	39%	45%	50%	80%	82%	86%	82%	81%	86%
Getting information	9%	9%	9%	36%	26%	40%	54%	45%	58%
Leisure activities	58%	60%	56%	45%	45%	54%	34%	35%	43%
Education or learning activities	30%	32%	45%	18%	21%	32%	6%	5%	8%
Online banking	0%	0%	0%	7%	4%	8%	23%	20%	25%
Creating content	8%	8%	10%	20%	18%	20%	12%	14%	12%
Dealing with government organisations / public authorities	0%	0%	0%	2%	2%	2%	11%	8%	8%
Purchasing or ordering goods or services	0%	0%	0%	2%	2%	4%	2%	4%	7%

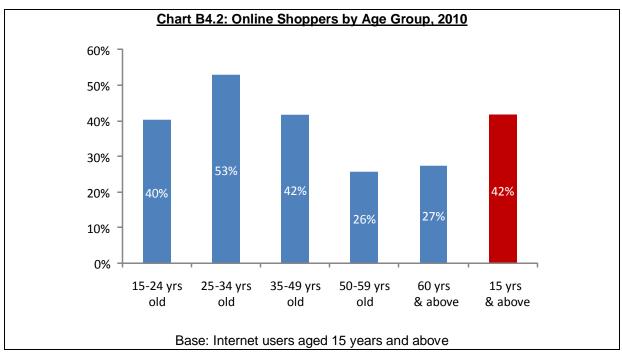
	35-49 yrs			50-59 yrs			60 yrs & above		
Primary Internet activity group	2008	2009	2010	2008	2009	2010	2008	2009	2010
Communicating	72%	72%	76%	69%	72%	65%	64%	65%	62%
Getting information	52%	49%	58%	55%	55%	52%	52%	49%	57%
Leisure activities	32%	31%	40%	25%	24%	30%	30%	33%	30%
Education or learning activities	6%	5%	6%	2%	1%	5%	0%	1%	1%
Online banking	21%	22%	23%	24%	19%	15%	20%	11%	7%
Creating content	8%	8%	11%	4%	3%	8%	6%	1%	5%
Dealing with government organisations / public authorities	10%	11%	11%	10%	12%	6%	9%	8%	2%
Purchasing or ordering goods or services	2%	3%	4%	3%	3%	2%	1%	3%	3%

#### **B4. ONLINE SHOPPING**

#### Online shoppers<sup>5</sup> by age group

About 42% of Internet users aged 15 years and above had made an online purchase before (defined as online shoppers) with the highest proportion in age group 25-34 years old (<u>Charts B4.1 and B4.2</u>).



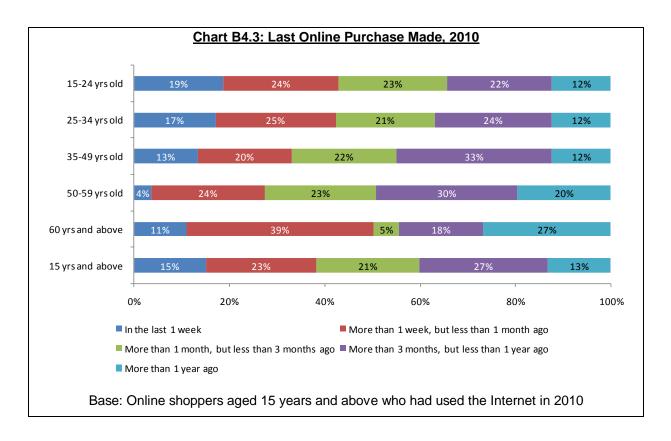


\_

<sup>&</sup>lt;sup>5</sup> An online shopper is a resident aged 15 years and above who had bought or ordered goods or services over the Internet before.

#### Last online purchase made

About 15% of online shoppers made purchases online in the last one week while about 23% had done so in the last month (<u>Chart B4.3</u>).



#### Items purchased online in the last 12 months

The two most popular items bought online for private purposes in 2010 were clothing, footwear, sporting goods or accessories (47%) and travel products (41%) (<u>Table B4.1</u>). The proportion of users who purchased clothing, footwear, sporting goods or accessories has increased from 33% to 47% over the last 3 years (<u>Table B4.2</u>).

Table B4.1: Top Ten Goods or Services Purchased Online, 2010

Items	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	15 yrs & above
Clothing, footwear, sporting goods or accessories	71%	52%	33%	26%	9%	47%
Travel products	14%	45%	54%	49%	58%	41%
Ticket for entertainment event	26%	32%	30%	22%	2%	28%
Books, magazines, newspaper (in physical form)	8%	9%	14%	14%	12%	11%
Computer equipment or parts (incl peripheral equipment)	6%	8%	8%	10%	0%	7%
Food or groceries	4%	9%	9%	3%	10%	7%
Movies, short films or images (in physical form)	7%	6%	6%	5%	12%	7%
Computer software (in digital form)	4%	5%	8%	4%	19%	6%
Books, magazines, newspaper (in digital form)	2%	6%	9%	5%	7%	6%
IT and telecomm services	2%	6%	6%	11%	0%	5%

Base: Online shoppers aged 15 years and above who had made at least one online purchase in 2010

Table B4.2: Top Ten Goods or Services Purchased Online, 2008-2010

	15 yrs & above			
Items	2008	2009	2010	
Clothing, footwear, sporting goods or accessories	33%	39%	47%	
Travel products	38%	40%	41%	
Ticket for entertainment event	31%	34%	28%	
Books, magazines, newspaper (in physical form)	11%	11%	11%	
Computer equipment or parts (incl peripheral equipment)	5%	6%	7%	
Food or groceries	5%	6%	7%	
Movies, short films or images (in physical form)	2%	2%	7%	
Computer software (in digital form)	6%	6%	6%	
Books, magazines, newspaper (in digital form)	7%	5%	6%	
IT and telecomm services	5%	6%	5%	

Base: Online shoppers aged 15 years and above who had made at least one online purchase

#### Payment methods for online purchases

Credit card payment was the most common mode of payment for goods or services purchased online (<u>Table B4.3</u>).

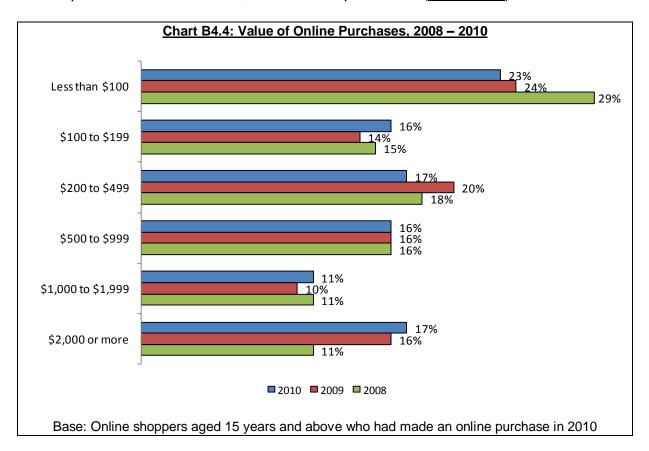
Table B4.3: Payment Methods for Goods or Services Purchased Online, 2010

Payment Method	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	15 yrs & above
Credit cards	48%	82%	90%	89%	90%	77%
Direct debit / Pay using bank account	47%	17%	9%	7%	17%	21%
eNETS virtual account / PayPal	12%	12%	10%	10%	20%	11%
Cash on delivery	11%	7%	2%	3%	0%	6%
Payment using mobile phone or through the telecommunication	0%	0%	1%	0%	0%	0%

Base: Online shoppers aged 15 years and above who had made at least one online purchase in 2010

#### Value of online purchases

The value of online purchases has been increasing with fewer "less than \$100" purchases and more "\$2,000 or more" purchases (Chart B4.4).



#### Main reason for not shopping online

Among Internet users who have never shopped online, the most commonly cited reason for not doing so was "Prefer to shop in person or deal personally with a service provider" (31%) followed by "Lack of interest" (29%) (Table B4.4).

Table B4.4: Main Reason for Not Shopping Online, 2010

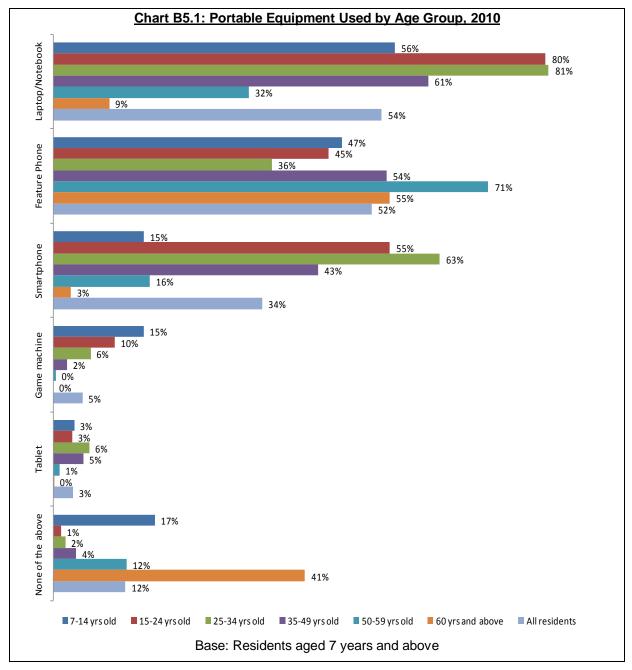
Main reason	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	15 yrs & above
Prefer to shop in person or deal personally with a service provider	29%	33%	32%	28%	45%	31%
Lack of interest	25%	29%	29%	36%	20%	29%
Privacy concerns (e.g. worried about giving personal details over the Internet)	8%	11%	13%	13%	5%	11%
Trust concerns (e.g. worried about warranties, receiving goods or services, or returning	12%	14%	9%	9%	16%	11%
Security concerns (e.g. concerns about viruses)	6%	6%	8%	3%	6%	6%
Lack of means to make online payments	14%	1%	2%	1%	0%	5%
Lack of knowledge, skills or confidence in using infocomm/Internet	2%	2%	5%	7%	8%	4%
Inconvenient payment methods (e.g. too many steps to purchase product)	4%	0%	1%	1%	1%	2%

Base: Internet users aged 15 years and above who had never made an online purchase

#### **B5. USAGE OF PORTABLE INFOCOMM EQUIPMENT**

#### Types of Portable Infocomm Equipment

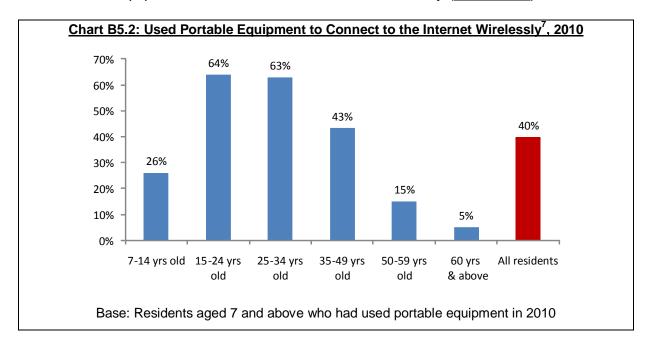
In 2010, about 1 in 3 residents used a smartphone<sup>6</sup> (<u>Chart B5.1</u>). The highest smartphone usage was among residents aged 25-34 years (63%).



<sup>&</sup>lt;sup>6</sup> A smartphone has more sophisticated functions than a feature phone. Examples of such functions are: i) able to open and read documents (e.g. pdf, office document) and ii) able to add / install applications on phone. These two categories are mutually exclusive, i.e. a mobile phone can only be a feature phone or a smartphone.

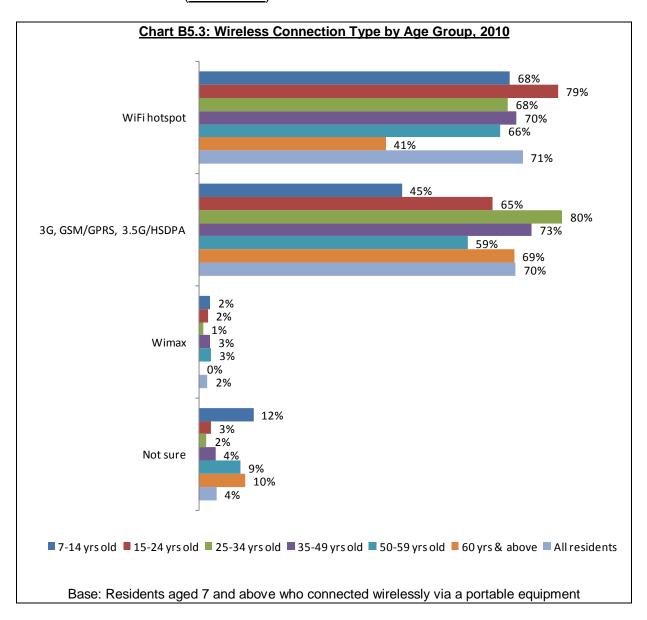
#### Wireless connection on portable infocomm equipment

Amongst residents who had used portable infocomm equipment, about 4 in 10 used the equipment to connect to the Internet wirelessly (<u>Chart B5.2</u>).



<sup>&</sup>lt;sup>7</sup> Wireless connection excludes connection through a wireless router. It includes connection via WiFi hotspots, 3G, GSM/GPRS and wireless broadband (e.g. WiMax, 3.5G/HSDPA).

Overall, there was no distinct preference for WiFi hotspot or mobile network when connecting wirelessly. By age group, it can be seen that younger users aged 7-24 years used more of WiFi hotspots while more users in age group "25-34 years" used mobile networks (Chart B5.3).



# Internet activities on mobile equipment<sup>8</sup>

Among the Internet activities on mobile equipment, the top three activities were for communication - sending or receiving email, social networks and instant messaging. (Table B5.1).

Table B5.1: Top Ten Internet Activities on Mobile Infocomm Equipment, 2010

Activity	7-14 yrs	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	All residents
Sending or receiving emails	8%	35%	47%	31%	10%	6%	26%
Social networks (e.g. MySpace, Facebook)	21%	47%	40%	16%	3%	1%	22%
Instant messaging	13%	26%	23%	18%	8%	5%	17%
Getting information about goods or services	3%	11%	22%	14%	6%	1%	11%
Reading online news	2%	10%	21%	15%	4%	2%	11%
Downloading or listening to online music	12%	14%	10%	6%	2%	0%	7%
Playing or downloading computer or video games	13%	13%	10%	6%	1%	0%	7%
Downloading or watching movies or images	8%	11%	7%	3%	1%	0%	5%
For access to services Mobile banking	0%	3%	8%	6%	2%	1%	4%
Telephone over the Internet (VoIP) (e.g. Skype, Viber)	2%	6%	6%	5%	1%	0%	4%

Base: Residents aged 7 and above who had used mobile equipment in 2010

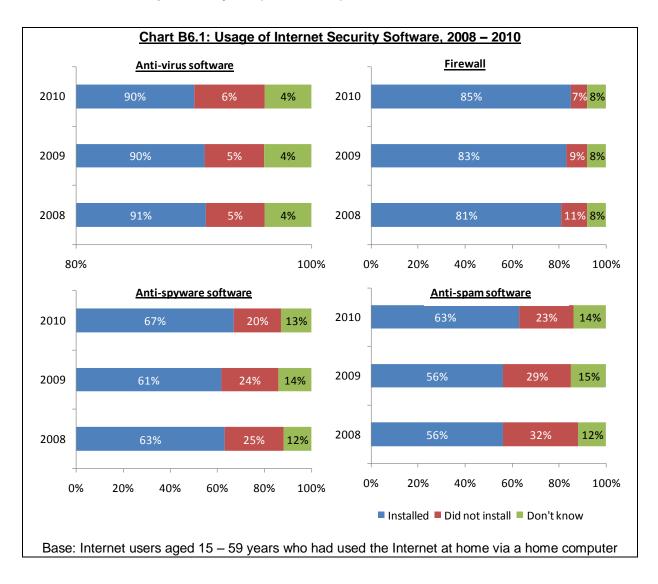
-

<sup>&</sup>lt;sup>8</sup> Mobile equipment is defined as portable equipment excluding laptop/notebook.

#### **B6. INTERNET SECURITY AT HOME**

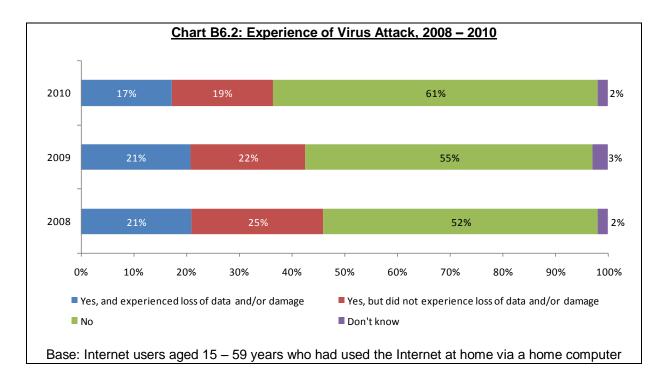
#### Adoption of Internet Security Software

In 2010, the use of Internet security software increased, especially in the adoption of anti-spyware and anti-spam software which saw a 6-7 percentage point increase over the previous year (<u>Chart B6.1</u>).



#### Experience of virus attacks

The proportion of home Internet users who did not experience virus attacks continued to grow, to about 6 in 10 in 2010 (Chart B6.2).



#### Reasons for not using Internet security software

Among users who accessed the Internet at home via a computer and did not install any one of the Internet security software (anti-virus, firewall, anti-spyware or anti-spam), about half cited that they did not think that there was a necessity to do so while 27% did not know that the protection was necessary (Table B6.1).

Table B6.1: Reasons for Not Using Internet Security Software, 2008 – 2010

No.	Reason for not using anti-virus, firewall or anti-spyware or anti-spam software	2008	2009	2010
1.	Don't think that the protection is necessary	55%	51%	55%
2.	Don't know that the protection is necessary	21%	23%	27%
3.	Costs of software or subscription	16%	17%	16%
4.	Lack of knowledge, skills or confidence	11%	14%	11%

Base: Internet users aged 15 – 59 years who had used the Internet at home via a home computer that was not protected by any one of the Internet security software (anti-virus, firewall, anti-spyware or anti-spam).

**PART IV: ANNEX** 

#### C1. DISTRIBUTION OF PRIMARY INTERNET ACTIVITIES

Table C1.1: Distribution of Primary Internet Activities by Residents, 2010

Primary Internet activity	All residents
Getting information	46%
Other information or general Web browsing	29%
About goods or services	22%
From government organisations/public authorities (from websites or via email)	5%
About job opportunities	4%
Related to health or health services	3%
Communicating	74%
Sending or receiving emails	54%
Social networks (e.g. Facebook, Twitter, LinkedIn)	42%
Instant messaging	13%
Chat rooms	5%
Blogging - Reading blogs that are created by others	4%
Telephoning over the Internet (VoIP)	3%
Peer-to-Peer (e.g. Yahoo!, Napster, RealNetworks)	0%
Creating content	12%
Broadcasting of self-produced videos (e.g. Youtube, Google Video)	8%
Creating / maintaining own blogs	2%
Sharing of own photos (e.g. Flickr, Snapfish)	2%
Forum discussion / Posting of feedback, advice (e.g. product reviews)	1%
Creating / maintaining own website	1%
Publishing of own writing / articles (e.g. Wikipedia, Fanfiction.net)	1%
Sharing of self-created music	0%
For online banking	15%
Checking account information	11%
Payment of bills	11%
Transferring of funds to other bank accounts	9%

Primary Internet activity	All residents
For purchasing or ordering goods or services	4%
For dealing with government organisations / public authorities	6%
Completing or lodging forms online (e.g. income tax filing)	3%
Making online payments	3%
Downloading or requesting forms	3%
For leisure activities	45%
Reading online newspapers	18%
Playing or downloading computer or video games	11%
Interactive online gaming	10%
Downloading or watching movies, short films or images	10%
Downloading or listening to online music	9%
Reading online magazines	3%
Watching Web television	3%
Reading electronic books	2%
Downloading or uploading other media (e.g. digital photographs)	1%
Listening to Web radio	1%
For education or learning activities	18%
Education or training activities (e.g. e-learning)	15%
For remote access of documents/applications/collaborative tools from the school server (for school work)	8%

Base: Internet users aged 7 years and above