



# Report on the Survey on Information Technology Usage and Penetration in the Business Sector

*Presenting statistics on various topics, including business use of computers and/or smartphones and the Internet, web presence of business and adoption of electronic commerce*

2023 Edition

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## 1. Key Figures

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- 98.3% of establishments used computers and/or smartphones for business purposes in 2023.
- 98.3% of establishments used the Internet in 2023.
- 48.4% of establishments had a web presence in 2023.
- 15.3% of establishments had received orders online in 2022\*.
- Value of business receipts from selling of goods, services or information through electronic means amounted to \$877.4 billion in 2022\*, representing 9.1% of the total business receipts of all selected industry groupings in 2022\*.

\*Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

## 2. Business Use of Computers and/or Smartphones and the Internet, and Web Presence of Business

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### **Business use of computers and/or smartphones**

- 98.3% of the establishments used computers (88.7%) and/or smartphones (96.8%) for business purposes in 2023.
- Proportion of establishments using computers and/or smartphones for business purposes was the highest in the information and communications sector; financing and insurance, real estate, professional and business services sector; and the social and personal services sector (100.0% respectively) and the lowest in the transportation, storage and courier services sector (96.6%) in 2023.
- Proportion of establishments using computers and/or smartphones for business purposes was higher for large and medium establishments (100.0% respectively) than small establishments (98.1%) in 2023.

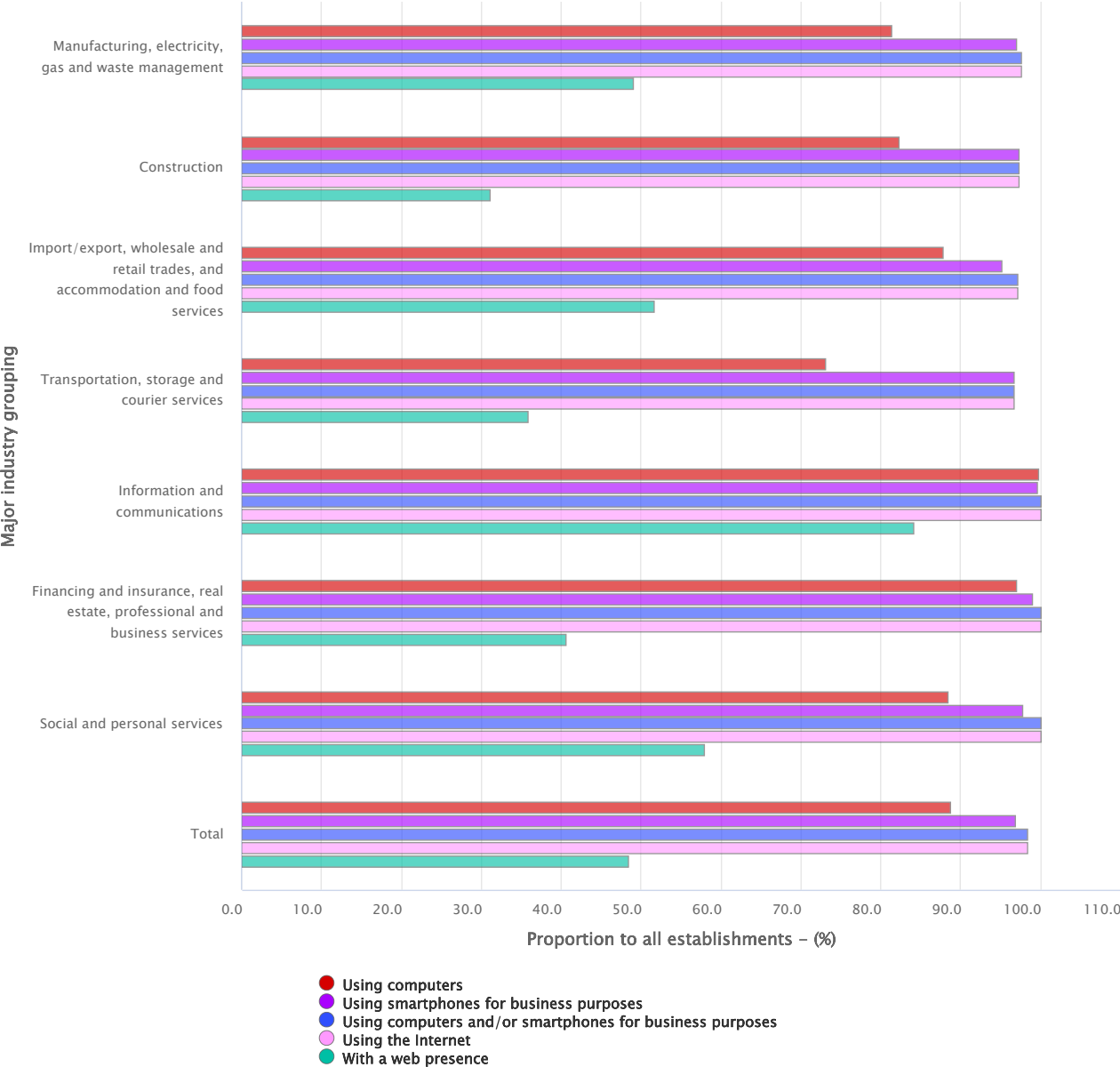
### **Business use of the Internet**

- 98.3% of the establishments used the Internet in 2023.
- Proportion of establishments using the Internet was the highest in the information and communications sector; financing and insurance, real estate, professional and business services sector; and the social and personal services sector (100.0% respectively) and the lowest in the transportation, storage and courier services sector (96.6%) in 2023.
- Proportion of establishments using the Internet was higher for large and medium establishments (100.0% respectively) than small establishments (98.1%) in 2023.

### **Business with a web presence**

- 48.4% of the establishments had a web presence in 2023.
- Proportion of establishments with a web presence was the highest in the information and communications sector (84.1%) and the lowest in the construction sector (31.1%) in 2023.
- Proportion of establishments with a web presence was much higher for large and medium establishments (93.8% and 80.3% respectively) than small establishments (44.3%) in 2023.

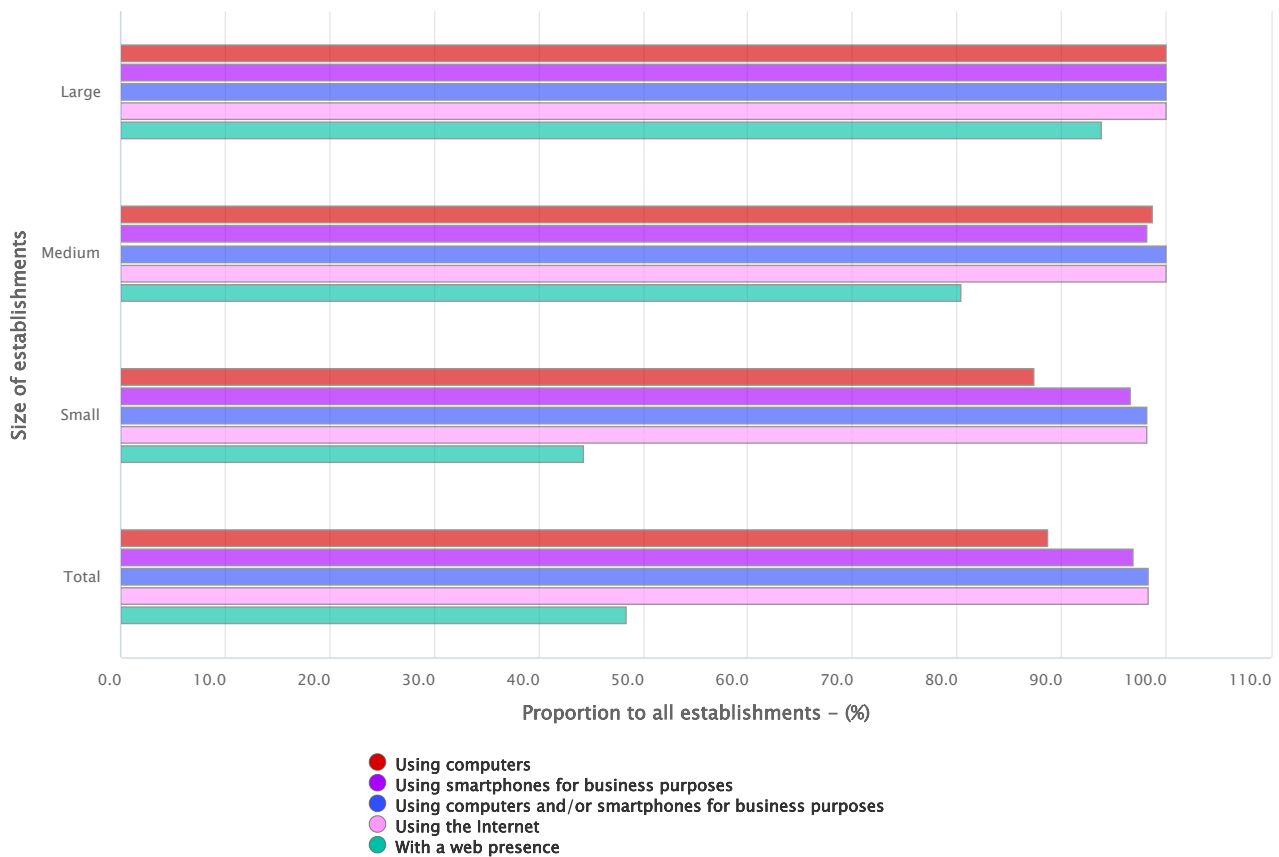
**Chart 2.1 : Proportion of establishments using computers, smartphones for business purposes, the Internet and web presence by major industry grouping, 2023**



**Table 2.1 : Proportion of establishments using computers, smartphones for business purposes, the Internet and web presence by major industry grouping**

		Number of establishments	Proportion to all establishments				
		No.	(%)				
Type of information technology usage / activity		Total	Using computers	Using smartphones for business purposes	Using computers and/or smartphones for business purposes	Using the Internet	With a web presence
Year	Major industry grouping						
2023	Manufacturing, electricity, gas and waste management	6 868	81.3	97.0	97.6	97.6	49.0
	Construction	26 190	82.3	97.3	97.3	97.3	31.1
	Import/export, wholesale and retail trades, and accommodation and food services	153 192	87.8	95.1	97.2	97.2	51.7
	Transportation, storage and courier services	26 190	73.1	96.6	96.6	96.6	35.9
	Information and communications	10 971	99.8	99.6	100.0	100.0	84.1
	Financing and insurance, real estate, professional and business services	77 803	97.0	98.9	100.0	100.0	40.6
	Social and personal services	49 803	88.4	97.8	100.0	100.0	57.9
	<b>Total</b>	<b>351 016</b>	<b>88.7</b>	<b>96.8</b>	<b>98.3</b>	<b>98.3</b>	<b>48.4</b>

**Chart 2.2 : Proportion of establishments using computers, smartphones for business purposes, the Internet and web presence by size of establishments, 2023**



**Table 2.2 : Proportion of establishments using computers, smartphones for business purposes, the Internet and web presence by size of establishments**

		Number of establishments	Proportion to all establishments				
		No.	(%)				
Type of information technology usage / activity		Total	Using computers	Using smartphones for business purposes	Using computers and/or smartphones for business purposes	Using the Internet	With a web presence
Year	Size of establishments						
2023	Large	6 356	100.0	100.0	100.0	100.0	93.8
	Medium	31 304	98.7	98.2	100.0	100.0	80.3
	Small	313 356	87.4	96.6	98.1	98.1	44.3
	Total	351 016	88.7	96.8	98.3	98.3	48.4

### 3. Business Adoption of Electronic Commerce (e-commerce) and Electronic Delivery (e-delivery)

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#### **E-commerce sales**

- 15.3% of the establishments had received orders online and value of business receipts from selling of goods, services or information through electronic means amounted to \$877.4 billion in 2022\*, representing 9.1% of the total business receipts of all selected industry groupings.
- Proportion of establishments having received orders online was the highest in the information and communications sector (25.1%) in 2022\*.
- E-commerce sales were more prevalent in large establishments (33.1%) than medium and small establishments (26.8% and 13.8% respectively) in 2022\*.

#### **E-commerce purchases**

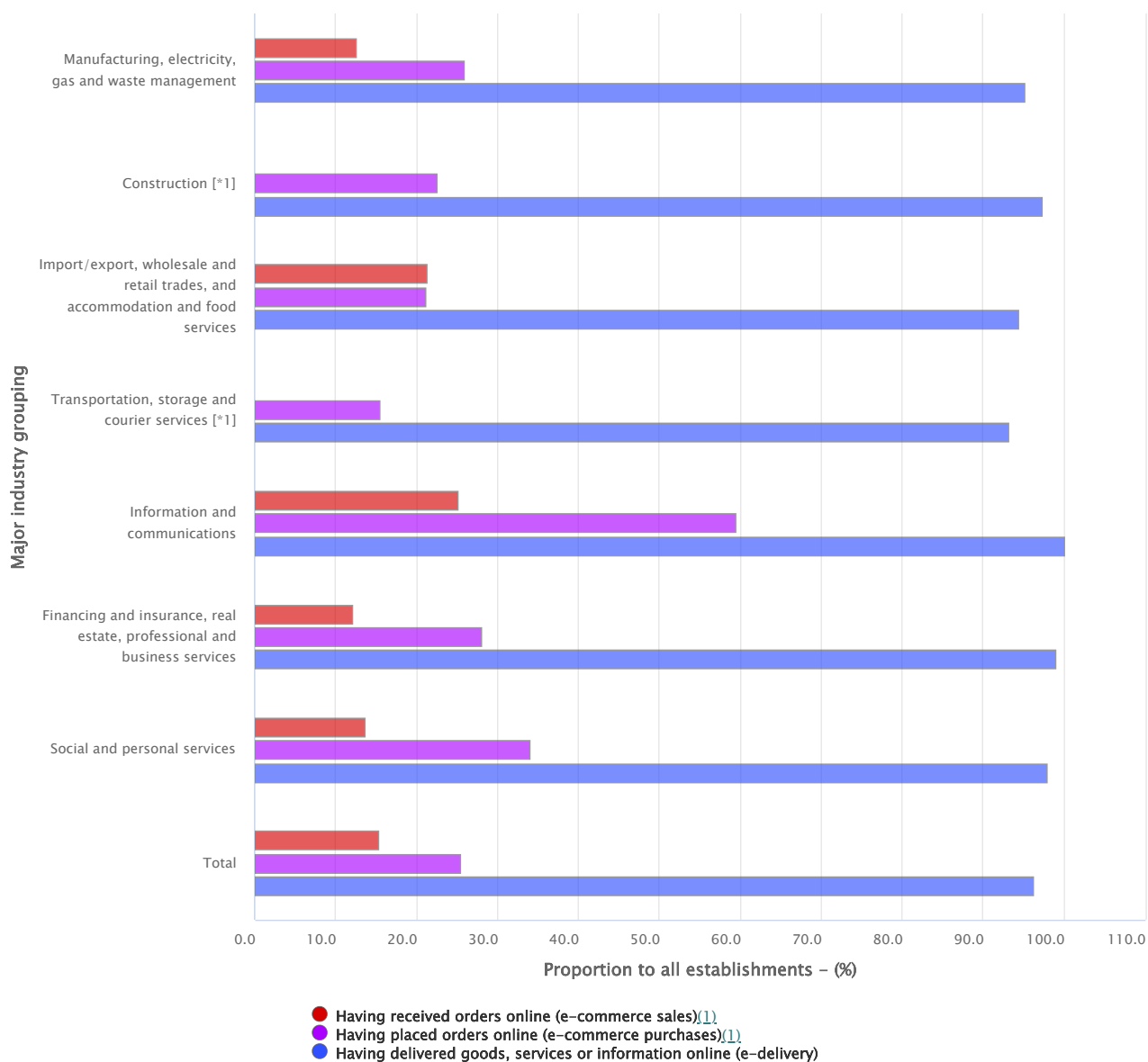
- 25.5% of the establishments had placed orders online in 2022\*.
- Proportion of establishments having placed orders online was the highest in the information and communications sector (59.4%) in 2022\*.
- E-commerce purchases were more prevalent in large and medium establishments (39.7% and 36.7% respectively) than small establishments (24.1%) in 2022\*.

#### **E-delivery**

- 96.2% of the establishments had delivered goods, services or information online in 2023.
- Proportion of establishments having delivered goods, services or information online was the highest in the information and communications sector (100.0%) in 2023.
- Proportion of establishments having delivered goods, services or information online was higher for large and medium establishments (100.0% and 99.8% respectively) than small establishments (95.8%) in 2023.

\*Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Chart 3.1 : Proportion of establishments with e-commerce sales, e-commerce purchases and e-delivery by major industry grouping, 2023**



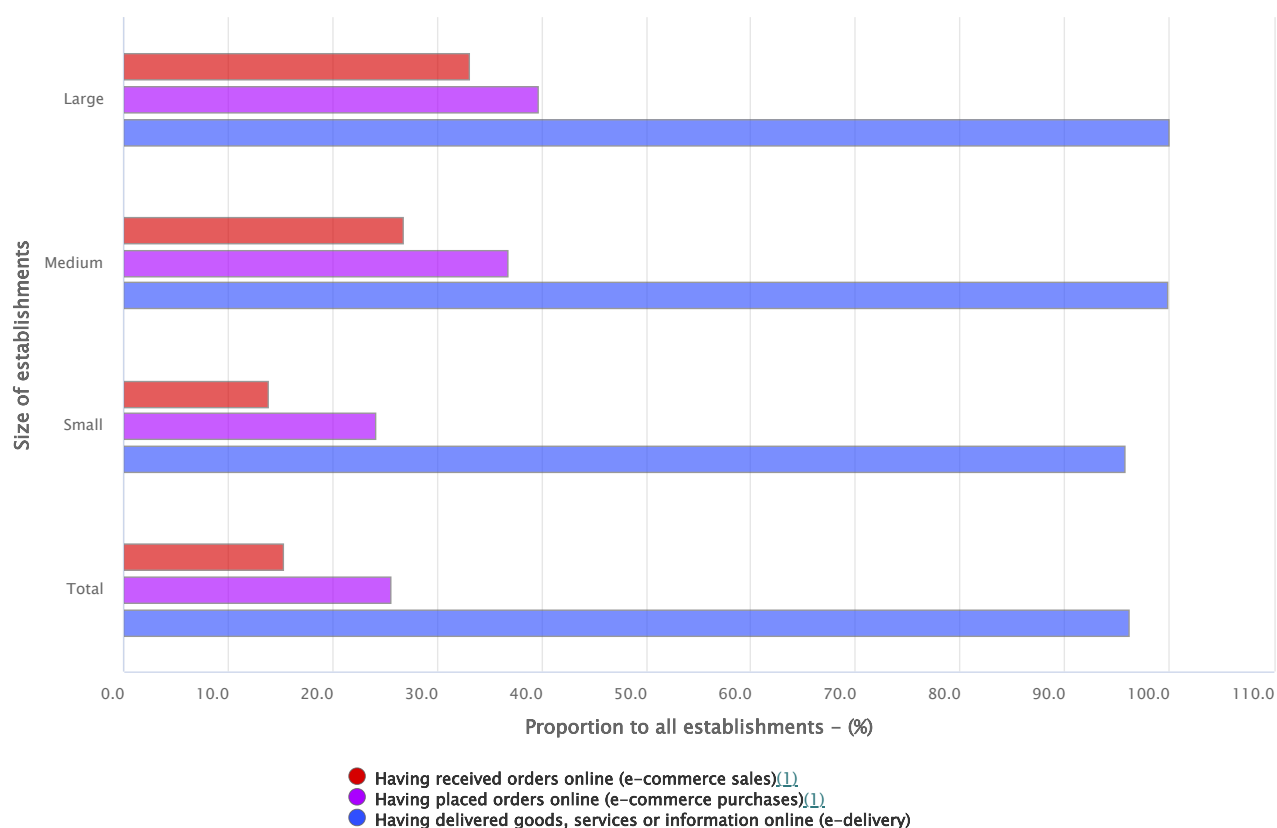
**Table 3.1 : Proportion of establishments with e-commerce sales, e-commerce purchases and e-delivery by major industry grouping**

		Proportion to all establishments		
		(%)		
Type of information technology usage / activity		Having received orders online (e-commerce sales) (1)	Having placed orders online (e-commerce purchases) (1)	Having delivered goods, services or information online (e-delivery)
Year	Major industry grouping			
2023	Manufacturing, electricity, gas and waste management	12.6	25.9	95.2
	Construction [*1]	[*1]	22.5	97.3
	Import/export, wholesale and retail trades, and accommodation and food services	21.3	21.1	94.4
	Transportation, storage and courier services [*1]	[*1]	15.5	93.1
	Information and communications	25.1	59.4	100.0
	Financing and insurance, real estate, professional and business services	12.1	28.1	99.0
	Social and personal services	13.7	34.0	97.9
	Total	15.3	25.5	96.2

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

[\*1] Figure is not released in order to safeguard confidentiality of information of individual establishments.

**Chart 3.2 : Proportion of establishments with e-commerce sales, e-commerce purchases and e-delivery by size of establishments, 2023**



**Table 3.2 : Proportion of establishments with e-commerce sales, e-commerce purchases and e-delivery by size of establishments**

		Proportion to all establishments		
		(%)		
Type of information technology usage / activity		Having received orders online (e-commerce sales) (1)	Having placed orders online (e-commerce purchases) (1)	Having delivered goods, services or information online (e-delivery)
Year	Size of establishments			
2023	Large	33.1	39.7	100.0
	Medium	26.8	36.7	99.8
	Small	13.8	24.1	95.8
	Total	15.3	25.5	96.2

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

## 4. Detailed Statistics

**Table 4.1 : Proportion of establishments using computers for business operation by major type of computer software application/system for business operation used**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Using computers
Year	Major type of computer software application/system (1)	
2023	Office suite (e.g. MS Office, OpenOffice, etc.)	96.0
	Electronic payment system, with mobile payment	46.9
	Accounting and finance	34.2
	Video conferencing software	33.8
	Electronic payment system, not with mobile payment	24.7
	Industry specific software (e.g. point of sale (POS) software, engineering/manufacturing industry specific software, etc.)	16.7
	Media development software (e.g. 3D computer graphics, sound editing, game and movie development software, etc.)	7.3
	Supply chain management (e.g. inventory, warehouse, transport management system, etc.)	5.8
	Human resources management (HRM)/Training	5.7
	Computer-aided design/Computer-aided manufacturing (CAD/CAM)	4.8
	Customer relationship management (CRM)	4.4
	Enterprise resource planning (ERP)	3.9
	Project management tools	2.7

The total number of establishments using computers was estimated at 311 233.

1 An establishment may use more than one type of computer software application/system.

**Table 4.2 : Proportion of establishments using the Internet by major type of access to the Internet**

		Proportion to establishments with selected type of information technology usage / activity			
		(%)			
Type of information technology usage / activity		Using the Internet			
Year	Major type of Internet access (1)	Fixed broadband	Mobile broadband		
			5G	4G	3G
2023		87.1	47.5	70.6	0.5

The total number of establishments using the Internet was estimated at 344 957.

1 An establishment may select more than one type of access.

**Table 4.3 : Proportion of establishments using the Internet by major type of use of the Internet**

		Proportion to establishments with selected type of information technology usage / activity	
		(%)	
Type of information technology usage / activity		Using the Internet	
Year	Major type of use of the Internet (1)		
2023	Communication	Sending or receiving emails	92.5
		Posting information or instant messaging	82.1
		Video conferencing/Telephoning over the Internet/VoIP	73.0
		Virtual private network (VPN)	5.7
	Financial transactions and enquiries	Internet banking	74.5
		Accessing financial services	8.3
	Marketing/Sales and purchasing activities	Providing customer services	72.8
		Getting information about goods or services	38.7
		Making payments of goods or services	35.3
		Receiving payments of goods or services	32.0
		Delivering products/services online	22.9
	Interacting with government organisations	Downloading or requesting government forms	36.8
		Getting information or accessing e-services directly from GovHK Portal	27.2
		Completing or lodging government forms online	22.9
		Getting information or accessing e-services directly from websites of government organisations, other than GovHK Portal	17.8
		Making online payment to government organisations	17.5
	Human resources management (HRM)/Training activities	Staff recruitment	18.0
		Staff training	3.7

The total number of establishments using the Internet was estimated at 344 957.

1 An establishment may select more than one type of use.

**Table 4.4 : Proportion of persons employed using computers/the Internet routinely by major industry grouping**

		Proportion of persons employed	
		(%)	
Type of information technology usage / activity		Routinely using computers	Routinely using the Internet
Year	Major industry grouping		
2023	Manufacturing, electricity, gas and waste management	56.9	88.5
	Construction	56.3	94.4
	Import/export, wholesale and retail trades, and accommodation and food services	77.6	94.7
	Transportation, storage and courier services	71.6	92.6
	Information and communications	97.2	99.3
	Financing and insurance, real estate, professional and business services	77.5	95.2
	Social and personal services	82.5	95.4
	Total	75.8	94.6

**Table 4.5 : Proportion of persons employed using computers/the Internet routinely by size of establishments**

		Proportion of persons employed	
		(%)	
Type of information technology usage / activity		Routinely using computers	Routinely using the Internet
Year	Size of establishments		
2023	Large	73.4	94.7
	Medium	75.0	94.3
	Small	81.3	94.6
	Total	75.8	94.6

**Table 4.6 : Proportion of establishments with a web presence by mode of website/webpage of business and major industry grouping**

		Number of establishments	Proportion to establishments with selected type of information technology usage / activity	
		No.	(%)	
Type of information technology usage / activity		With a web presence	With a web presence	
Type of web presence (1)		Total	With a website/webpage owned by the establishment	With a web presence on another entity's website
Year	Major industry grouping			
2023	Manufacturing, electricity, gas and waste management	3 364	71.4	61.2
	Construction	8 133	69.2	76.9
	Import/export, wholesale and retail trades, and accommodation and food services	79 238	63.6	77.8
	Transportation, storage and courier services	9 401	99.8	48.9
	Information and communications	9 224	92.5	65.3
	Financing and insurance, real estate, professional and business services	31 576	79.0	68.2
	Social and personal services	28 854	66.3	80.2
	Total	169 790	70.9	73.7

1 An establishment may select more than one type of web presence.

**Table 4.7 : Proportion of establishments with a web presence by mode of website/webpage of business and size of establishments**

		Number of establishments	Proportion to establishments with selected type of information technology usage / activity	
		No.	(%)	
Type of information technology usage / activity		With a web presence	With a web presence	
Type of web presence (1)		Total	With a website/webpage owned by the establishment	With a web presence on another entity's website
Year	Size of establishments			
2023	Large	5 959	94.9	85.6
	Medium	25 139	80.8	75.6
	Small	138 692	68.1	72.9
	Total	169 790	70.9	73.7

1 An establishment may select more than one type of web presence.

**Table 4.8 : Proportion of establishments with a web presence by major feature of website/webpage of business**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		With a website/webpage owned by the establishment
Year	Major features of website/webpage (1)	
2023	Provision of information on the establishment and goods or services offered (for both customers and staff)	99.6
	Integration with social media	42.7
	Collection customers' information	29.6
	Provision of information about privacy or security	27.6
	Provision of online after-sale support	21.8
	Online payment	20.9
	Online ordering	20.2
	Provision of information on the job opportunities	19.2
	Delivery of goods/services	15.0
	Online reservation/booking	12.4
	Provision of customising webpage or information for repeated customers	9.3

Total number of establishments with their own website/webpage was estimated at 120 438.

1 An establishment may select more than one feature.

**Table 4.9 : Proportion of establishments having received orders online by major type of method to make e-commerce sales**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having received orders online (e-commerce sales) (1)
Year	Major type of method to make e-commerce sales (2)	
2023	Via website	85.9
	Via mobile application	48.8
	Via electronic data transmission (e.g. XML, EDIFACT, etc.)	4.3

The total number of establishments having received orders online was estimated at 53 853.

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

2 An establishment may select more than one method.

**Table 4.10 : Value of e-commerce sales analysed by type of method of placing orders**

		Value of e-commerce sales (1)	
		HK\$ million	Percentage share (%)
Year	Type of method of placing orders		
2023	Via the website or mobile application of establishments	563,509	64.2
	Via electronic data transmission (e.g. XML, EDIFACT, etc.)	171,115	19.5
	Through third party website or mobile application (e.g. online marketplace, e-commerce platform, agent's site, etc.)	142,786	16.3
	Total	877,409	100.0

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Table 4.11 : Value of e-commerce sales analysed by type of customers**

		Value of e-commerce sales (1)	
		HK\$ million	Percentage share (%)
Year	Type of customers		
2023	Individual consumers	449,307	51.2
	Business establishments	409,698	46.7
	Government and non-business organisations	18,404	2.1
	Total	877,409	100.0

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Table 4.12 : Distribution of establishments having received orders online analysed by percentage of payment settled online**

		Proportion to establishments with selected type of information technology usage / activity	
		Having received orders online (e-commerce sales) (1)	
Type of information technology usage / activity		Having received orders online (e-commerce sales) (1)	
Year	Payment settled online as a percentage of the total value of e-commerce sales		
2023	0%	3.7	
	<1-20%	3.4	
	21-40%	2.4	
	41-60%	6.2	
	61-80%	5.5	
	81-100%	78.8	
	Total	100.0	

The total number of establishments having received orders online was estimated at 53 853.

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Table 4.13 : Proportion of establishments having received orders online by major method of providing authentication and/or secure access for clients adopted by business**

		Proportion to establishments with selected type of information technology usage / activity	
		Having received orders online (e-commerce sales) (1)	
Type of information technology usage / activity		Having received orders online (e-commerce sales) (1)	
Year	Method of providing authentication and/or secure access for clients (2)		
2023	Username and password/Personal Identification Number (PIN)	78.5	
	Transport Layer Security (TLS)	69.7	
	Username and one-time generated password	26.1	
	Username and security token	11.0	
	Digital certificate	6.5	
	No provision for authentication or secure access for clients	9.5	

The total number of establishments having received orders online was estimated at 53 853.

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

2 An establishment may select more than one method.

**Table 4.14 : Proportion of establishments having placed orders online by major type of method to make e-commerce purchases**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having placed orders online (e-commerce purchases) (1)
Year	Major type of method to make e-commerce purchases (2)	
2023	Via website	87.6
	Via mobile application	43.2
	Via electronic data transmission (e.g. XML, EDIFACT, etc.)	5.2

The total number of establishments having placed orders online was estimated at 89 378.

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

2 An establishment may select more than one method.

**Table 4.15 : Proportion of establishments having placed orders online by major type of e-commerce purchases by business**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having placed orders online (e-commerce purchases) (1)
Year	Major type of e-commerce purchases (2)	
2023	Goods/Materials for replenishment of inventory	67.3
	Goods/materials other than smartphone/computer hardware or software and their consumables	40.7
	Smartphone/computer hardware or software and their consumables	37.7
	Application for Government services (e.g. issue of licence/certificate)	19.4
	Transportation and accommodation services	14.1
	Financial instruments or services (e.g. insurance, investment fund, securities, etc.)	8.1
	Services other than those listed above (e.g. advertising services, online storage services, email domain services, etc.)	23.4

The total number of establishments having placed orders online was estimated at 89 378.

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

2 An establishment may select more than one type of e-commerce purchases.

**Table 4.16 : Distribution of establishments having placed orders online analysed by percentage against the total value of purchases**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having placed orders online (e-commerce purchases) (1)
Year	E-commerce purchases as a percentage of the total value of purchases	
2023	<1% (2)	7.4
	1-10%	23.0
	11-20%	7.9
	21-30%	9.1
	31-40%	3.9
	41-50%	12.5
	>50%	36.2
	Total	100.0

The total number of establishments having placed orders online was estimated at 89 378.

- 1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.
- 2 This denotes "greater than 0% but less than 1%".

**Table 4.17 : Distribution of establishments having placed orders online analysed by percentage of payment made online**

		Proportion to establishments with selected type of information technology usage / activity	
		Having placed orders online (e-commerce purchases) (1)	
Type of information technology usage / activity		Proportion to establishments with selected type of information technology usage / activity	
		Having placed orders online (e-commerce purchases) (1)	
Year	Payment made online as a percentage of the total value of e-commerce purchases		
2023	0%	2.8	
	<1-20%	4.1	
	21-40%	1.6	
	41-60%	5.6	
	61-80%	3.0	
	81-100%	82.9	
	Total	100.0	

The total number of establishments having placed orders online was estimated at 89 378.

- 1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Table 4.18 : Proportion of establishments having delivered goods, services or information online by major type of goods, services or information having delivered**

		Proportion to establishments with selected type of information technology usage / activity	
		Having delivered goods, services or information online (e-delivery)	
Type of information technology usage / activity		Proportion to establishments with selected type of information technology usage / activity	
		Having delivered goods, services or information online (e-delivery)	
Year	Major type of goods, services or information delivered (1)		
2023	Provision of information on the establishment or goods/services of the establishment, or delivery of other information through electronic means other than the website	99.9	
	Provision of information on the establishment or goods/services of the establishment, or delivery of other information on the website	43.6	
	Delivery of services in digitised form	21.8	
	Delivery of goods in digitised form	8.4	

The total number of establishments having delivered goods, services or information online was estimated at 337 781.

- 1 An establishment may select more than one type.

**Table 4.19 : Proportion of establishments having put in place information technology (IT) security measures by major type of IT security measures**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having put in place IT security measures
Year	Major type of information technology (IT) security measures (1)	
2023	Firewall	90.0
	Regular update of anti-malware software and definition file	82.3
	Regular update of the operating system patch	81.6
	Spam filter	77.9
	Regular backup of data critical to the business's operation	63.4
	Secured communication between clients and servers	43.1
	Intrusion prevention system (IPS)	34.8
	Intrusion detection system (IDS)	33.5
	Offsite data backup	28.8
	Educating staff on safe use of computer/information systems and IT security matters	21.0
	Authentication software or hardware for internal or external users	20.6
	Outsourcing IT security services	16.2
	Encryption of data	15.6
	Endpoint Detection and Response (EDR) solution/Network Detection and Response (NDR) solution	13.9
	Log Analytics	10.9
	Policies in place to ensure information security	10.8
	Employing full-time or part-time staff responsible for information security	9.0
Establishing an information security management system as described in ISO/IEC 27001	1.9	

The total number of establishments having put in place IT security measures was estimated at 324 401.

1 An establishment may implement more than one type of IT security measure.

**Table 4.20 : Proportion of establishments having business continuity plan by major type of business continuity plan adopted**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having business continuity plan
Year	Major type of business continuity plan (1)	
2023	Use manual operation instead	64.6
	Seek advice from the Internet Service Provider	36.4
	Use backup system	26.2
	Seek help from personnel familiar with the Internet	16.1
	Seek advice from IT consultant	14.4

The total number of establishments having business continuity plan was estimated at 235 468.

1 An establishment may select more than one action.

**Table 4.21 : Number of digital certificates having used by business by major industry grouping**

		Number of establishments	Number of digital certificates
		No.	No.
Type of information technology usage / activity		Having used digital certificates (1)	Number of digital certificates (1)
Year	Major industry grouping		
2023	Manufacturing, electricity, gas and waste management	536	1 735
	Construction	2 312	2 895
	Import/export, wholesale and retail trades, and accommodation and food services	18 943	38 315
	Transportation, storage and courier services	4 521	11 313
	Information and communications	1 750	5 096
	Financing and insurance, real estate, professional and business services	7 132	23 528
	Social and personal services	2 162	6 397
	Total	37 357	89 279

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Table 4.22 : Number of digital certificates having used by business by size of establishments**

		Number of establishments	Number of digital certificates
		No.	No.
Type of information technology usage / activity		Having used digital certificates (1)	Number of digital certificates (1)
Year	Size of establishments		
2023	Large	2 077	26 261
	Medium	6 291	15 682
	Small	28 989	47 336
	Total	37 357	89 279

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

**Table 4.23 : Proportion of establishments having used digital certificates by major type of use**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Having used digital certificates (1)
Year	Major use of digital certificates (2)	
2023	Transaction/ Exchange of information/ e-cheque/ cross-boundary use with Government and related organisations	72.3
	Transaction/ Exchange of information/e-cheque/cross-boundary use with customers	21.5
	Transaction/ Exchange of information/e-cheque/cross-boundary use with other business partners	20.0
	In-house operation	13.9

The total number of establishments having used digital certificates was estimated at 37 357.

1 Figures refer to the information of the calendar year preceding the reference year, or any consecutive 12-month period between 1 January of the preceding year and 31 March of the reference year, according to the accounting practices of individual establishments.

2 An establishment may select more than one type of use.

**Table 4.24 : Proportion of establishments using information and communication technology (ICT) by major type of ICT and major industry grouping**

		Proportion to all establishments				
		(%)				
Type of information technology usage / activity (1)		Cloud computing services	Two-dimensional (2D) barcode/ Quick Response (QR) code	Radio frequency identification (RFID)	Internet of things (IoT)	Augmented reality (AR)/ Virtual reality (VR)
Year	Major industry grouping					
2023	Manufacturing, electricity, gas and waste management	95.4	13.4	17.5	3.4	0.4
	Construction	97.3	10.4	8.1	3.1	0.8
	Import/export, wholesale and retail trades, and accommodation and food services	94.7	33.2	29.4	4.6	0.7
	Transportation, storage and courier services	93.1	15.2	6.7	2.3	0.3
	Information and communications	100.0	37.8	22.8	11.1	6.5
	Financing and insurance, real estate, professional and business services	99.0	19.6	16.1	3.8	2.0
	Social and personal services	99.3	36.8	28.6	4.0	1.9
	Total	96.6	27.4	22.6	4.2	1.3

1 An establishment may select more than one type of technology.

**Table 4.25 : Proportion of establishments using information and communication technology (ICT) by major type of ICT and size of establishments**

		Proportion to all establishments				
		(%)				
Type of information technology usage / activity (1)		Cloud computing services	Two-dimensional (2D) barcode/ Quick Response (QR) code	Radio frequency identification (RFID)	Internet of things (IoT)	Augmented reality (AR)/ Virtual reality (VR)
Year	Size of establishments					
2023	Large	100.0	76.7	73.9	15.8	17.5
	Medium	99.4	44.0	42.8	8.2	2.1
	Small	96.2	24.7	19.6	3.6	0.9
	Total	96.6	27.4	22.6	4.2	1.3

1 An establishment may select more than one type of technology.

**Table 4.26 : Proportion of establishments using cloud computing services by major type of cloud computing services**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Cloud computing services
Year	Major type of cloud computing services (1)	
2023	Public cloud	96.7
	Private cloud	15.2
	Hybrid cloud	1.6
	Community cloud	1.0

The total number of establishments using cloud computing services was estimated at 338 942.

1 An establishment may select more than one type of cloud computing services.

**Table 4.27 : Proportion of establishments using or planning to use cloud computing services by major application area of cloud computing services**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Using or planning to use cloud computing services
Year	Major application area of cloud computing services (1)	
2023	Emails/Communications	98.1
	Data storage/backup	79.4
	Finance/Accounting management	24.8
	Collaboration (such as online meetings, shared workspaces, etc.)	21.0
	Website/Content management	20.1
	Electronic commerce transaction	15.9
	Sales support	9.2
	Customer relationship management	6.1
	Advertising	5.5
	Human resources management	3.7
	Enterprise resource planning	2.8
	Office automation	2.7
	Supply chain	2.2
	Mobile application development	1.0

The total number of establishments using or planning to use cloud computing services was estimated at 338 942.

1 An establishment may select more than one application area of cloud computing services.

**Table 4.28 : Distribution of establishments using or planning to use cloud computing services by percentage of information technology budget to be allocated to cloud computing services initiatives in the next 12 months**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Using or planning to use cloud computing services
Year	Percentage of IT budget to be allocated to cloud computing services initiatives in the next 12 months	
2023	0%	48.3
	<1-25%	45.3
	26-50%	4.3
	51-75%	0.6
	> 75%	1.5
	Total	100.0

The total number of establishments using or planning to use cloud computing services was estimated at 338 942.

**Table 4.29 : Proportion of establishments with information technology (IT) budget for 2023 by expected change in IT budget for 2023 compared with 2022 and major industry grouping**

		Number of establishments	Proportion to establishments with selected type of information technology usage / activity			
		No.	(%)			
Type of information technology usage / activity		With IT budget for 2023	With IT budget for 2023			
Expected change in IT budget for 2023 over that for 2022		Total	Increased	Same	Decreased	Uncertain
Year	Major industry grouping					
2023	Manufacturing, electricity, gas and waste management	4 898	15.8	42.7	3.8	37.6
	Construction	20 449	[*1]	52.4	[*1]	37.9
	Import/export, wholesale and retail trades, and accommodation and food services	116 716	14.0	40.9	3.2	41.9
	Transportation, storage and courier services	18 244	[*1]	42.2	[*1]	40.6
	Information and communications	10 373	25.1	35.3	3.4	36.2
	Financing and insurance, real estate, professional and business services	61 416	21.9	41.3	0.4	36.5
	Social and personal services	38 906	16.6	41.7	2.8	38.9
	Total	271 003	16.2	41.9	2.4	39.6

[\*1] Figure is not released in order to safeguard confidentiality of information of individual establishments.

**Table 4.30 : Proportion of establishments with information technology (IT) budget for 2023 by expected change in IT budget for 2023 compared with 2022 and size of establishments**

		Number of establishments	Proportion to establishments with selected type of information technology usage / activity			
		No.	(%)			
Type of information technology usage / activity		With IT budget for 2023	With IT budget for 2023			
Expected change in IT budget for 2023 over that for 2022		Total	Increased	Same	Decreased	Uncertain
Year	Size of establishments					
2023	Large	6 214	34.9	31.5	2.1	31.5
	Medium	28 036	25.2	35.8	2.1	36.9
	Small	236 753	14.6	42.8	2.4	40.1
	Total	271 003	16.2	41.9	2.4	39.6

**Table 4.31 : Proportion of establishments providing mobile services and/or setting up social media account by major type of media provided**

		Proportion to establishments with selected type of information technology usage / activity	
		(%)	
Type of information technology usage / activity		Providing mobile services and/or setting up social media account	
Year	Major type of media provided (1)		
2023	Short message services (SMS)/Multimedia messaging service (MMS)/Electronic messages (e.g. WhatsApp, WeChat, etc.)	98.2	
	Social media account (e.g. Facebook, Instagram, etc.)	31.4	
	Mobile website	13.5	
	Mobile application	3.7	

The total number of establishments providing mobile services and/or setting up social media account was estimated at 329 742.

1 An establishment may provide more than one type of media.

**Table 4.32 : Proportion of establishments providing mobile applications and/or social media account by major type of feature**

		Proportion to establishments with selected type of information technology usage / activity
		(%)
Type of information technology usage / activity		Providing mobile applications and/or setting up social media account
Year	Major type of feature (1)	
2023	Sending product and promotional information to customers	99.0
	Facility for collecting customers' information (e.g. customers' feedback on products)	35.1
	Provision of after-sale support (e.g. enquiry-handling, order tracking, etc.)	18.7
	Facilitating customers to place orders for goods or services	16.5
	Enabling customers to make online orders/bookings/reservations	12.5
	Delivery of goods or services in digitised form to customers	9.9
	Mobile payment	5.7

The total number of establishments providing mobile applications and/or social media account page was estimated at 108 092.

1 An establishment may select more than one feature.

## 5. Further Information

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For the latest and more detailed statistics on the use of information technology by business, please refer to the [Use of Information Technology](#) subject page where you may customise the following tables to fit your needs:

- [Table 720-87001 : Proportion of establishments using computers, smartphones for business purposes, the Internet and web presence](#)
- [Table 720-87002 : Proportion of establishments with e-commerce sales, e-commerce purchases and e-delivery as well as value of e-commerce sales as a percentage of total business receipts](#)
- [Table 720-87003 : Proportion of establishments using information and communication technology \(ICT\) by major type of ICT](#)

## 6. Explanatory Notes

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### 6.1 Survey Objectives

#### Objectives

Survey on Information Technology Usage and Penetration in the Business Sector aims to collect information relating to information technology (IT) usage and penetration in the business sector. The survey results provide useful reference for gauging the development of IT services in Hong Kong.

#### Legislation

The survey is conducted under Part IIIA of the Census and Statistics Ordinance (Chapter 316). It is a voluntary survey as notified in the Government Notice No.760 in the Government of the Hong Kong Special Administrative Region Gazette of 3 February 2023. The Ordinance stipulates that the collected information relating to individual establishments must be kept in strict confidence. Only aggregate information, which does not reveal details of individual establishments, would be released.

### 6.2 Survey methodology

#### Survey coverage

This is an economy-wide survey, covering all major economic sectors except the agriculture, forestry and fishing, and mining and quarrying sectors which are negligible in Hong Kong. The sampling frame for the survey is the Central Register of Establishments, which is a comprehensive register maintained by C&SD and updated by reference to the records of the Business Registration Office of the Inland Revenue Department. The survey adopts the Hong Kong Standard Industrial Classification (HSIC) Version 2.0 for classification of industries in the data collection and presentation of survey findings.

#### Survey reference period

In order to obtain the latest information on IT usage and penetration in the business sector, data collected in the 2023 survey refer to the position of enumeration in 2023, unless otherwise specified.

In the 2023 survey, the number of persons engaged refers to the position as at end February 2023. Statistics related to electronic commerce (e-commerce) and digital certificates refer to the calendar year 2022, or any consecutive 12-month period between 1 January 2022 and 31 March 2023, according to the accounting practices of individual establishments. For establishments which commenced or ceased operation within their respective accounting periods defined above, data collected cover the months within this accounting period during which the establishments were in operation.

### Survey Methodology

### 6.3 Terms and definitions

#### Cloud computing service

Cloud computing service is the delivery of computing resources (hardware and software) by a party (the service provider) over the Internet to a user. This delivery or provision is described as a "service" because the user merely "rent" the computing resources rather than actually acquiring them. It provides shared computing resources to achieve economies of scale similar to a public utility (like the electricity grid).

Examples of cloud computing services include:

- cloud-based e-mail services such as Gmail, Yahoo Mail, etc.
- social networking such as WhatsApp, WeChat, Facebook, YouTube, etc.
- cloud-based storage services such as Dropbox, Google Drive, etc.
- cloud-based office suites such as Google Apps for Work, Microsoft Office 365, etc.
- customer relationship management (CRM) systems such as Salesforce, Microsoft Dynamics CRM, etc.
- point of sales (POS) systems such as myPOS, Shopify POS, etc.
- accounting systems such as MYOB, Flex System, etc.
- enterprise resources planning (ERP) such as NetSuite, Plex Systems, Epicor ERP, etc.

#### Computer

Computer refers to desktop computer, laptop or tablet, but excludes equipment with some embedded computing abilities, such as smart TV sets, personal digital assistants (PDAs) and devices with telephony as their primary function, such as smartphones.

#### **Electronic commerce**

Electronic commerce (e-commerce) transaction is the sale or purchase of goods or services conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations.

#### **Information technology (IT)**

Information Technology is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data.

#### **Size of establishments**

Size of establishments is categorised into small, medium and large according to the number of persons engaged as follows:

Size of establishment Industry grouping	No. of persons engaged		
	Small	Medium	Large
Manufacturing	< 10	10 – 99	≥ 100
Non-manufacturing	< 10	10 – 49	≥ 50

#### **Web presence**

Web presence refers to the situation whereby an establishment has a website/webpage or presence on another entity's website (including the website of a related business or social media business page). Inclusion in an online directory and any other webpages where the establishment does not have substantial control over the content of the webpage are excluded.

#### **Terms and Definitions**

## 7. Enquiries

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