



**KEMENTERIAN EKONOMI
JABATAN PERANGKAAN MALAYSIA**

**LAPORAN SURVEI PENGGUNAAN DAN
CAPAIAN ICT OLEH INDIVIDU DAN ISI RUMAH**

ICT USE AND ACCESS BY INDIVIDUALS AND HOUSEHOLDS

SURVEY REPORT

2022

Pemakluman

Jabatan Perangkaan Malaysia (DOSM) sedang menjalankan Banci Ekonomi pada tahun 2023. DOSM amat menghargai kerjasama daripada responden untuk memberikan maklumat kepada DOSM serta menjayakan banci ini. Sila layari www.dosm.gov.my untuk maklumat lanjut.

DOSM telah melancarkan OpenDOSM NextGen sebagai medium yang menyediakan katalog data dan visualisasi bagi memudahkan pengguna menganalisis pelbagai jenis data. OpenDOSM NextGen ialah platform perkongsian data sumber terbuka dan boleh diakses melalui portal <https://open.dosm.gov.my>.

Dimaklumkan bahawa Kerajaan Malaysia telah mengisytiharkan Hari Statistik Negara (MyStats Day) pada 20 Oktober setiap tahun. Tema sambutan MyStats Day adalah “*Connecting the World with Data We Can Trust*”.

Announcement

The Department of Statistics Malaysia (DOSM) is conducting the Economic Census in 2023. DOSM greatly appreciates the cooperation from respondents in providing information and ensuring the success of this census. Please visit www.dosm.gov.my for more information.

DOSM has launched OpenDOSM NextGen as a medium that provides a catalogue of data and visualisation that facilitates users in analyzing various types of data. OpenDOSM NextGen is an open source data sharing platform and accessible through <https://open.dosm.gov.my> portal.

*Please be informed that the Government of Malaysia has declared National Statistics Day (MyStats Day) on October 20 each year. MyStats Day Theme is “*Connecting the World with Data We Can Trust*”.*

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PRAKATA

Laporan Survei Penggunaan dan Capaian ICT oleh Individu dan Isi Rumah 2022 membentangkan statistik mengenai penggunaan dan capaian ICT oleh individu dan isi rumah. Statistik yang diterbitkan dalam laporan ini adalah berdasarkan konsep dan garis panduan daripada *Manual for Measuring ICT Access and Use by Households and Individuals, 2020 Edition* yang diterbitkan oleh *International Telecommunication Union (ITU)*.

Statistik daripada laporan ini digunakan oleh agensi kerajaan dan pihak swasta sebagai input dalam perancangan, pembentukan dan pemantauan rancangan pembangunan ICT negara. Statistik ini juga digunakan oleh ahli ekonomi, ahli akademik serta individu lain bagi tujuan penyelidikan dan penganalisan.

Laporan ini mengandungi tiga bahagian utama. Ringkasan penemuan dibentangkan di bahagian pertama manakala bahagian kedua memuatkan jadual terperinci mengenai statistik penggunaan dan capaian ICT. Aspek teknikal seperti konsep, definisi dan metodologi diterangkan di bahagian ketiga bagi memudahkan pengguna memahami statistik dan terma yang diterbitkan.

Jabatan Perangkaan Malaysia (DOSM) merakamkan setinggi-tinggi penghargaan atas kerjasama yang diberikan oleh semua pihak dalam membekalkan data yang diperlukan dan menyumbang kepada kejayaan penerbitan ini. Setiap maklum balas dan cadangan untuk penambahbaikan penerbitan ini pada masa akan datang amat dihargai.

DATO' SRI DR. MOHD UZIR MAHIDIN

Ketua Perangkawan Malaysia

Mei 2023



PREFACE

The ICT Use and Access by Individuals and Households 2022 Survey Report presents statistics on the use and access of ICT by individuals and households. Statistics published in this report are based on the concepts and guidelines from the Manual for Measuring ICT Access and Use by Households and Individuals, 2020 Edition published by the International Telecommunication Union (ITU).

Statistics from this report are primarily used by government and private agencies as an input in the planning, formulating and monitoring of national ICT development plans. These statistics can be used by economists, academicians and other individuals for research and analysis purposes.

This report consists of three main sections. Summary of findings is presented in the first section while second section contains detailed tables on the use and access of ICT statistics. Technical aspects such as concepts, definitions and methodologies are described in section three in order to facilitate users with better understanding pertaining to the published statistics.

The Department of Statistics Malaysia (DOSM) gratefully acknowledges cooperation provided by all parties that provided the required data and contributed to the success of this publication. Every feedback and suggestion towards improving future reports are highly appreciated.

DATO' SRI DR. MOHD UZIR MAHIDIN

Chief Statistician Malaysia

May 2023

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RINGKASAN PENEMUAN

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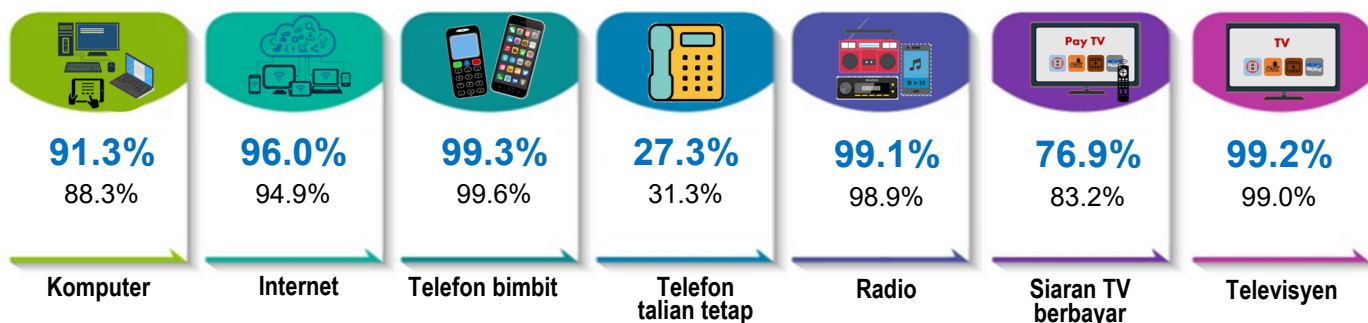
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CAPAIAN ICT OLEH ISI RUMAH

2022

■ 2022
■ 2021

CAPAIAN PERKHIDMATAN DAN PERALATAN ICT



CAPAIAN TELEFON BIMBIT

Telefon biasa



16.2%
15.2%

97.3%
96.6%

Telefon pintar



CAPAIAN INTERNET



Jalur lebar tetap

46.4%
41.2%



Jalur lebar mudah alih

95.5%
94.0%

CAPAIAN INTERNET MENGIKUT STRATA

MALAYSIA



96.0%
94.9%

Bandar



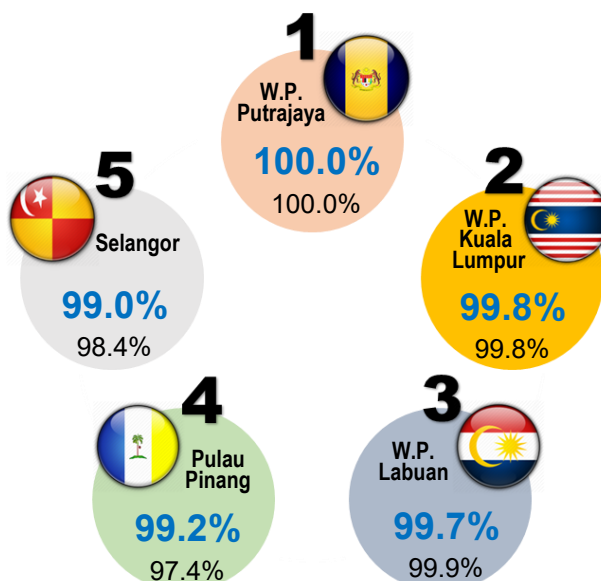
98.1%
96.8%

Luar bandar



89.1%
86.7%

5 NEGERI DENGAN CAPAIAN INTERNET TERTINGGI

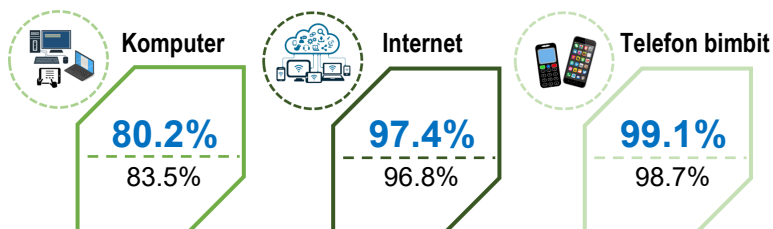


PENGUNAAN ICT OLEH INDIVIDU 2022

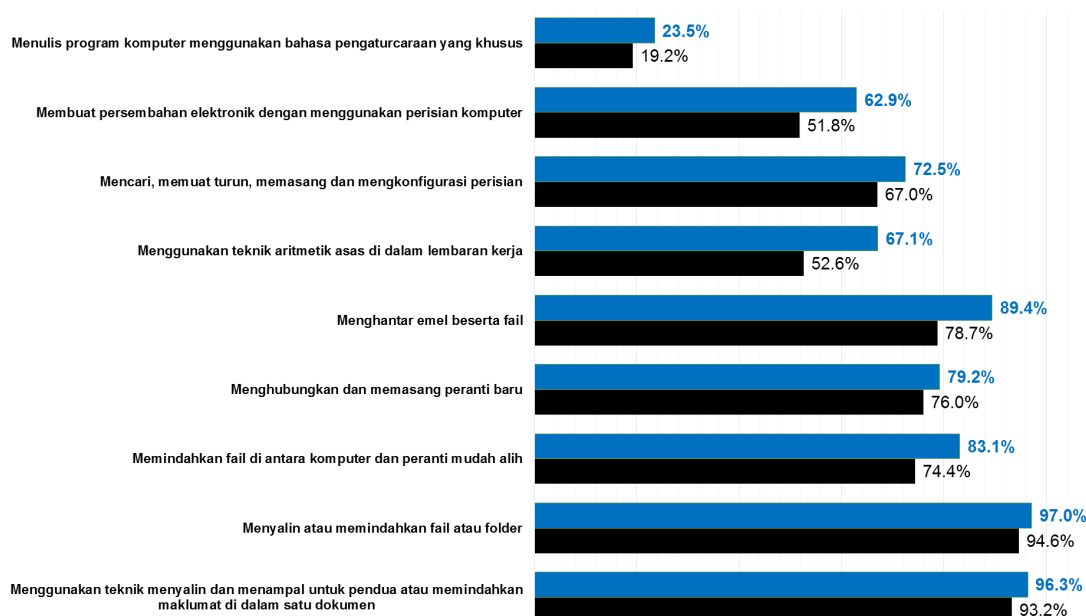
■ 2022
■ 2021

PENGUNAAN PERALATAN DAN PERKHIDMATAN ICT

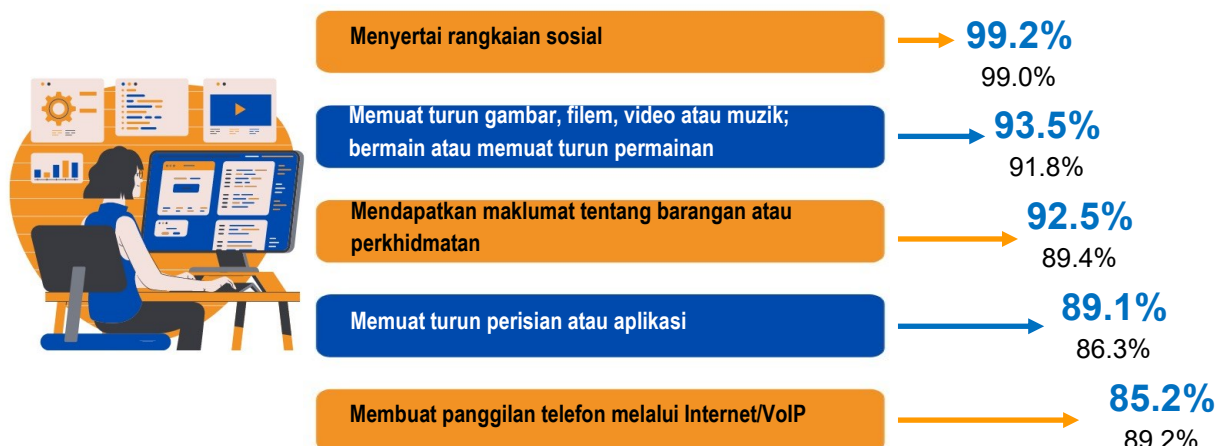
PENGUNAAN INTERNET MENGIKUT JANTINA



PENGUNAAN KOMPUTER MENGIKUT KEMAHIRAN



5 AKTIVITI POPULAR PENGUNAAN INTERNET

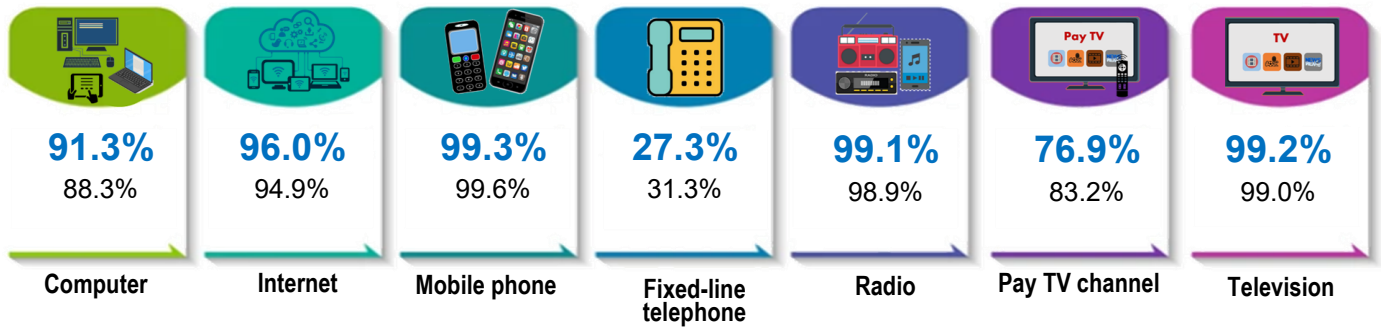


ICT ACCESS BY HOUSEHOLD

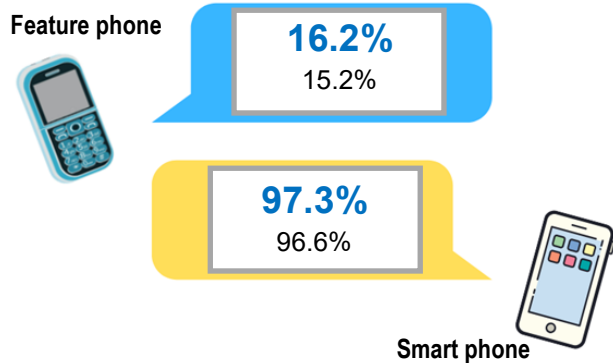
2022

■ 2022
■ 2021

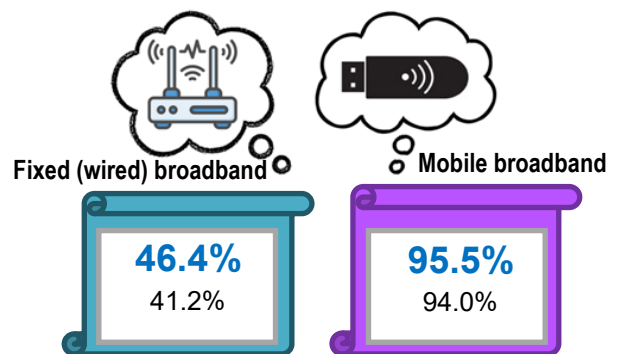
ACCESS TO ICT SERVICES AND EQUIPMENT



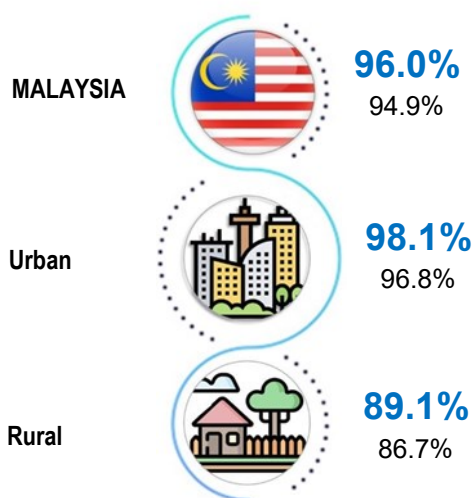
ACCESS TO MOBILE PHONE



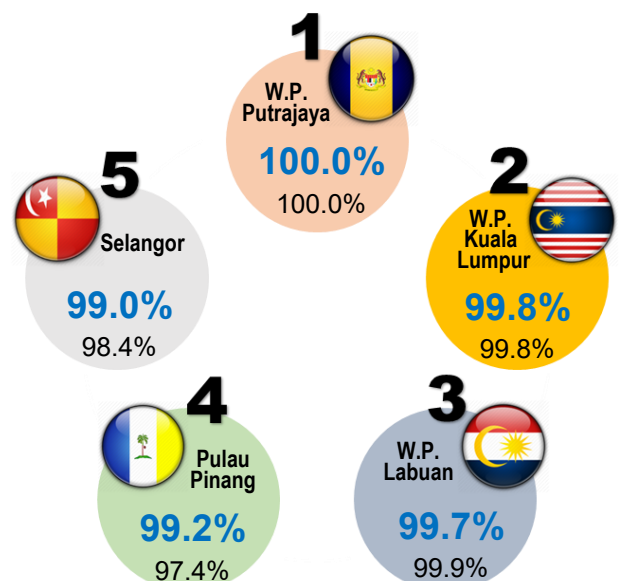
ACCESS TO INTERNET



INTERNET ACCESS BY STRATA



TOP 5 STATES WITH HIGHEST INTERNET ACCESS

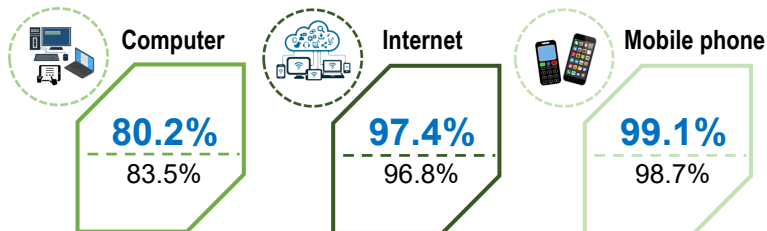


ICT USE BY INDIVIDUAL

2022

■ 2022
■ 2021

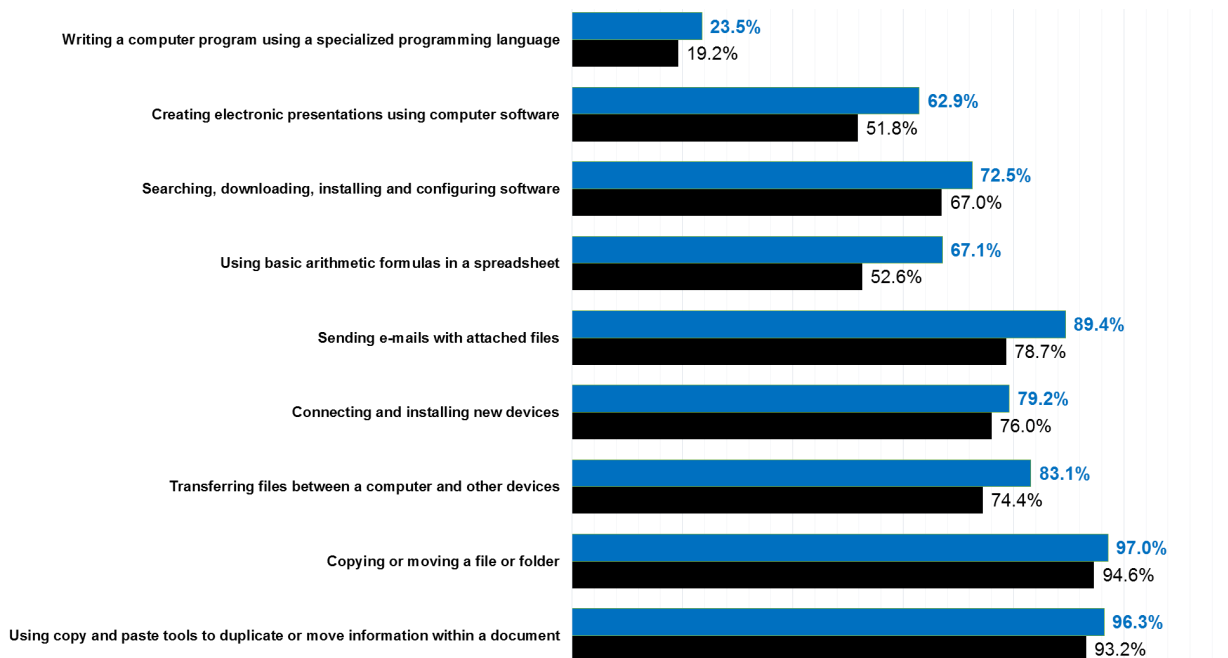
USE OF ICT SERVICES AND EQUIPMENT



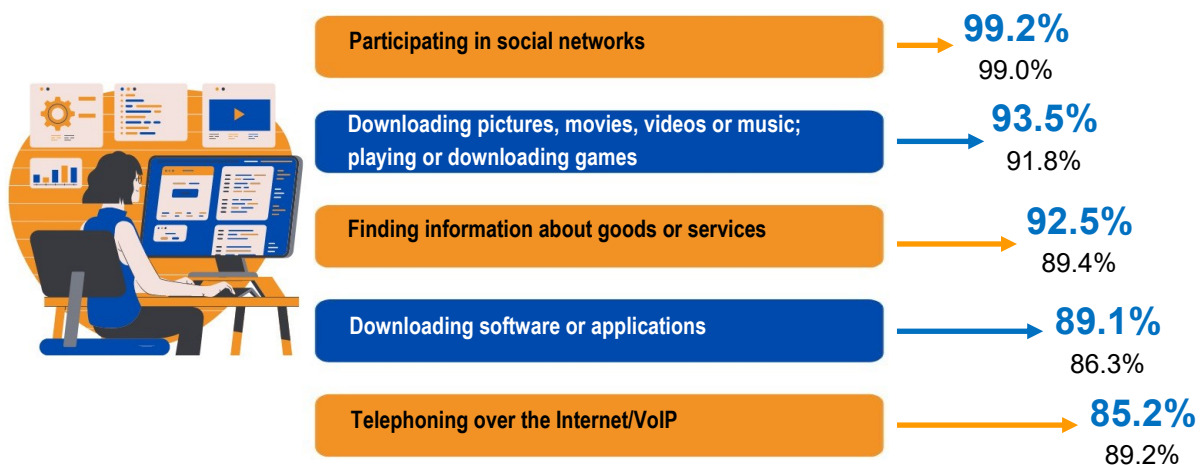
INTERNET USE BY SEX



ICT SKILLS BY COMPUTER USAGE



5 POPULAR ACTIVITIES OF INTERNET USAGE



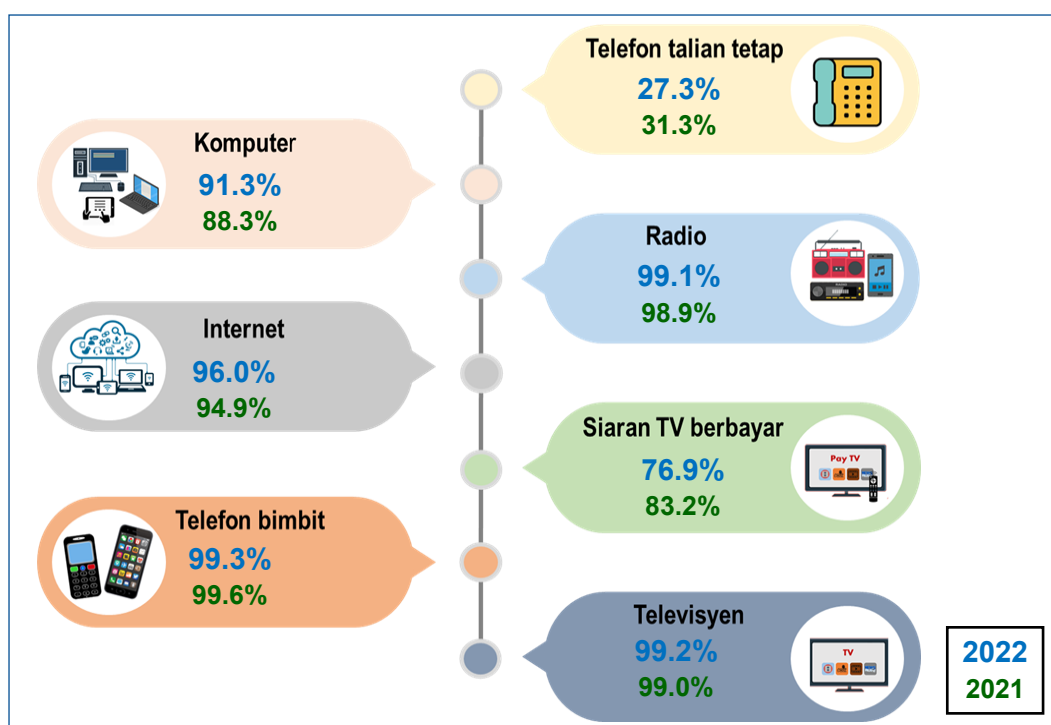
1. PENGENALAN

Laporan ini membentangkan hasil penemuan Survei Penggunaan dan Capaian ICT oleh Individu dan Isi Rumah (ICTHS) yang dilaksanakan pada 2022. Penemuan ini menunjukkan statistik terkini mengenai capaian dan penggunaan peralatan serta perkhidmatan ICT oleh individu dan isi rumah. Garis panduan, konsep dan definisi yang digunakan dalam laporan ini adalah berdasarkan *Manual for Measuring ICT Access and Use by Households and Individuals, 2020 Edition* yang diterbitkan oleh *International Telecommunication Union (ITU)*. Survei ICTHS 2022 telah dilaksanakan semasa di peringkat peralihan pandemik COVID-19 di mana teknologi digital digunakan secara meluas disebabkan oleh pelaksanaan Perintah Kawalan Pergerakan (PKP). Pada masa ini, COVID-19 tidak lagi menjadi kecemasan kesihatan global dan peralihan kepada fasa endemik yang mana tidak lagi canggung menggunakan teknologi digital. Penemuan survei ini dapat memberi penerangan terhadap penggunaan ICT oleh isi rumah dan individu di samping membantu kerajaan untuk bersiap siaga dalam era pendigitalan.

2. CAPAIAN PERKHIDMATAN DAN PERALATAN ICT OLEH ISI RUMAH

Dalam survei ini, sesebuah isi rumah dianggap mempunyai capaian kepada perkhidmatan dan peralatan ICT sekiranya ia masih boleh digunakan ketika temu ramah dijalankan. Berdasarkan penemuan survei, peratusan capaian isi rumah bagi telefon bimbit (99.3%), televisyen (99.2%), radio (99.1%) dan Internet (96.0%) melebihi 95.0 peratus. Manakala, peratusan isi rumah yang mempunyai capaian terhadap telefon talian tetap (27.3%) dan siaran TV berbayar (76.9%) menunjukkan penurunan.

Paparan 1: Peratusan capaian perkhidmatan dan peralatan ICT oleh isi rumah, Malaysia, 2021 dan 2022

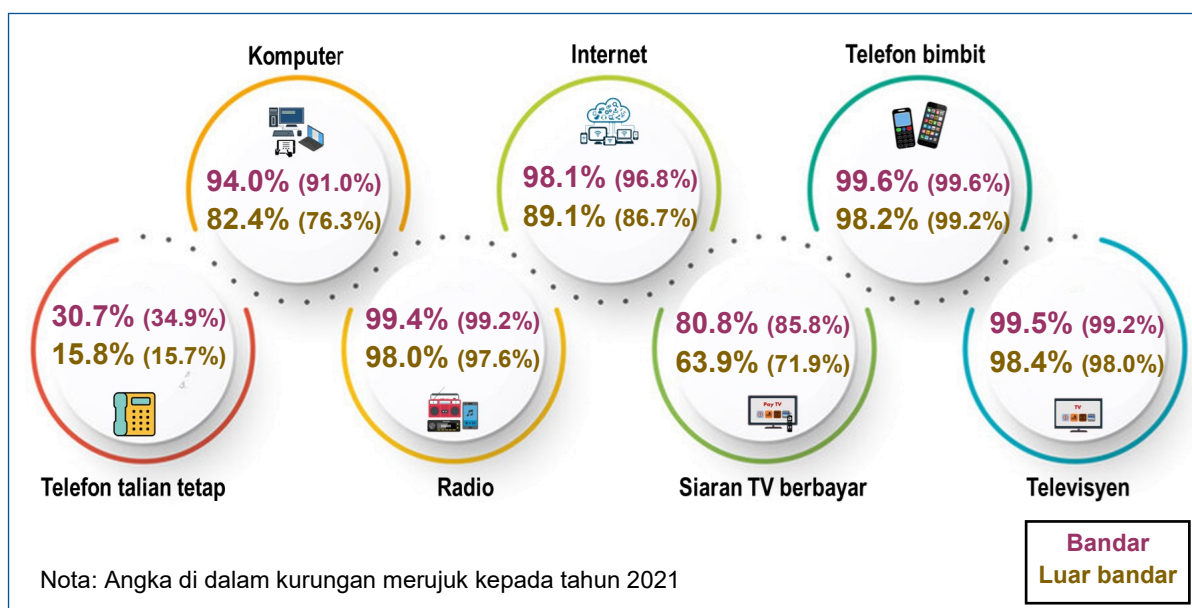


2.1 Capaian Perkhidmatan dan Peralatan ICT oleh Isi Rumah Mengikut Strata

Isi rumah di bandar menunjukkan trend peningkatan dalam peratusan capaian bagi peralatan dan perkhidmatan ICT iaitu, radio (99.4%), televisyen (99.5%), Internet (98.1%) dan komputer (94.0%). Manakala, peratusan capaian isi rumah terhadap telefon bimbit kekal pada 99.6 peratus. Sebaliknya, peratusan capaian isi rumah menunjukkan penurunan, iaitu telefon talian tetap (30.7%) dan siaran TV berbayar (80.8%).

Isi rumah di luar bandar juga turut mengalami peningkatan bagi capaian perkhidmatan dan peralatan ICT iaitu Internet (89.1%), televisyen (98.4%), radio (98.0%), komputer (82.4%) dan telefon talian tetap (15.8%). Walau bagaimanapun, peratusan capaian isi rumah menunjukkan penurunan untuk telefon bimbit (98.2%) dan siaran TV berbayar (63.9%).

Paparan 2: Peratusan capaian perkhidmatan dan peralatan ICT oleh isi rumah mengikut strata, Malaysia, 2021 dan 2022



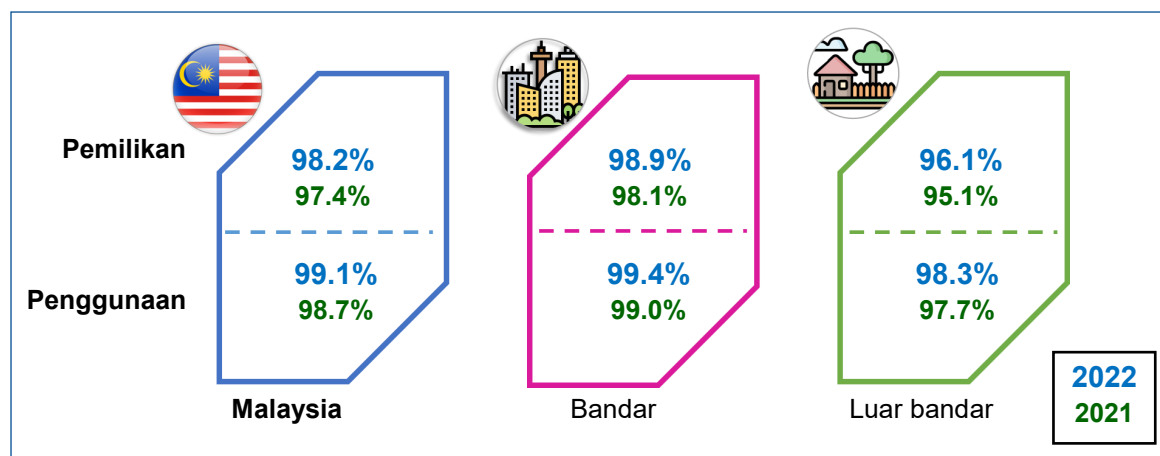
3. PENGGUNAAN PERKHIDMATAN DAN PERALATAN ICT OLEH INDIVIDU

3.1 Pemilikan dan Penggunaan Telefon Bimbit

Pemilikan telefon bimbit oleh individu di Malaysia menunjukkan peningkatan daripada 97.4 peratus pada 2021 kepada 98.2 peratus pada 2022. Sumbangan peratusan pemilikan telefon bimbit oleh individu di kawasan bandar dan luar bandar masing-masing merekodkan 98.9 peratus dan 96.1 peratus.

Dari segi penggunaan pula, individu yang menggunakan telefon bimbit mencapai 99.1 peratus. Tambahan pula, penggunaan telefon bimbit di kawasan bandar dan luar bandar masing-masing adalah 99.4 peratus dan 98.3 peratus.

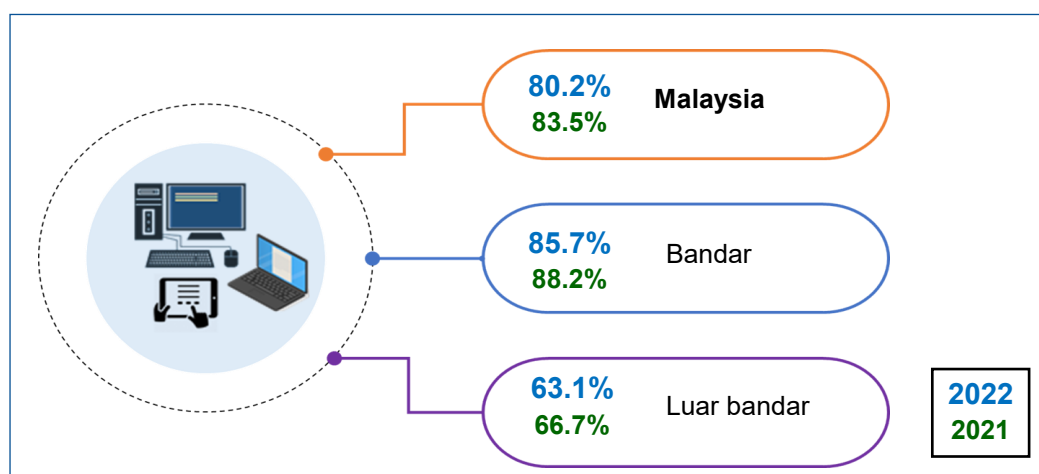
Paparan 3: Peratusan pemilikan dan penggunaan telefon bimbit oleh individu mengikut strata, Malaysia, 2021 dan 2022



3.2 Penggunaan Komputer

Penggunaan komputer merangkumi penggunaan semua jenis komputer iaitu komputer peribadi, komputer riba atau papan elektronik mudah alih. Berdasarkan penemuan survei, penggunaan komputer menunjukkan penurunan iaitu daripada 83.5 peratus pada tahun 2021 kepada 80.2 peratus pada tahun 2022 (-3.3 mata peratus). Begitu juga penggunaan komputer di bandar dan luar bandar masing-masing menurun kepada 85.7 peratus (-2.5 mata peratus) dan 63.1 peratus (-3.6 mata peratus).

Paparan 4: Peratusan penggunaan komputer oleh individu mengikut strata, Malaysia, 2021 dan 2022

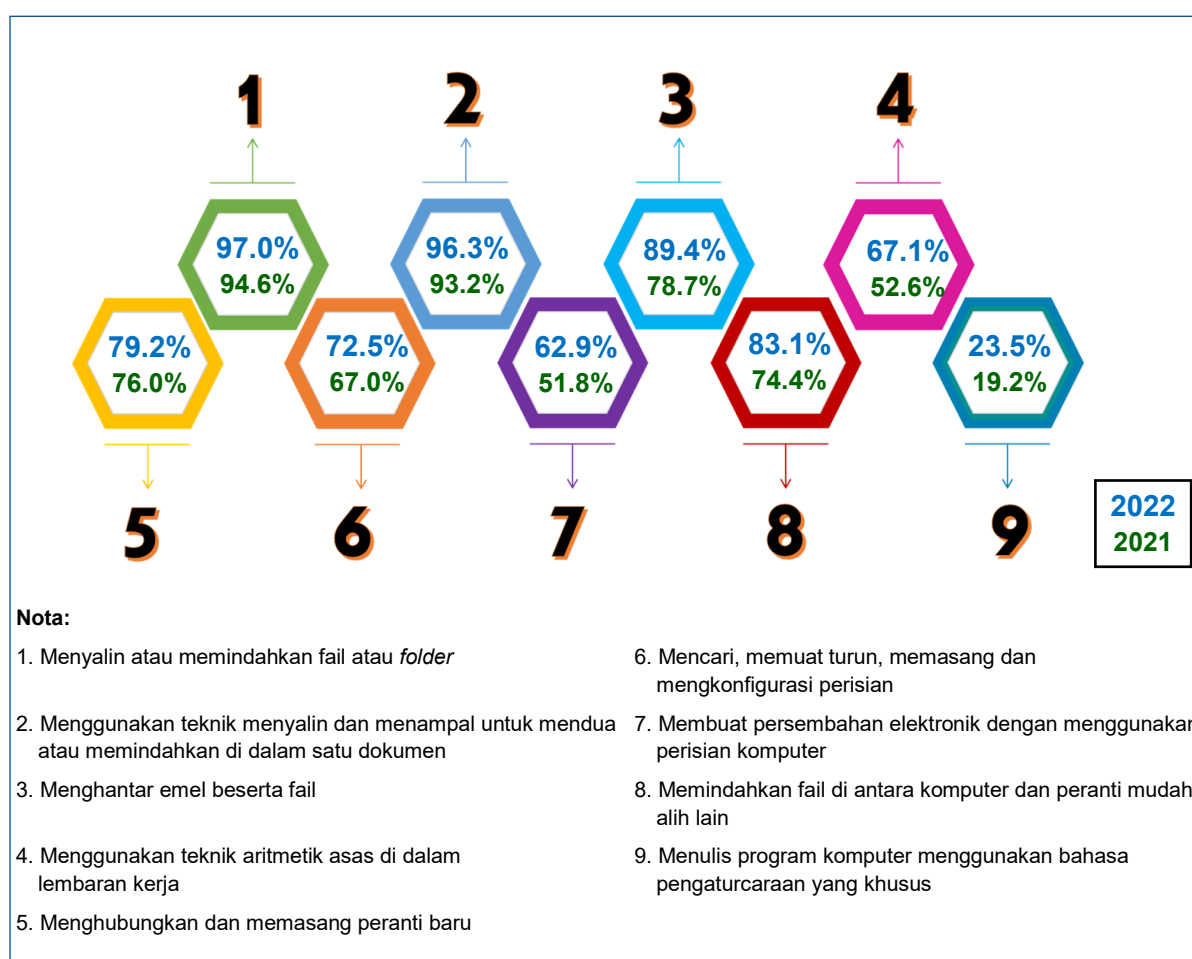


3.3 Kemahiran ICT

Kemahiran ICT merupakan salah satu indikator yang dipantau dalam Matlamat Pembangunan Mampan (SDG) iaitu SDG 4.4.1 Peratusan belia dan dewasa dengan kemahiran teknologi maklumat dan komunikasi (ICT) mengikut jenis kemahiran. Bagi mengukur kemahiran ICT, aktiviti komputer yang dijalankan oleh individu berfungsi sebagai indikator utama. Statistik yang diperolehi daripada aktiviti ini dapat menyediakan informasi yang bernilai untuk penggubal dasar yang bertujuan dalam meningkatkan kemahiran ICT. Dengan mengutamakan penambahbaikan dalam kemahiran ICT ini akan memupuk masyarakat yang bermaklumat dan komuniti yang berpengetahuan.

Lima aktiviti yang menunjukkan peratus tertinggi pada tahun 2022 adalah aktiviti menyalin atau memindahkan fail (97.0%). Ini diikuti dengan aktiviti menggunakan teknik menyalin dan menampal untuk mendua atau memindahkan maklumat di dalam satu dokumen (96.3%), menghantar emel beserta fail (89.4%), memindahkan fail di antara komputer dan peranti mudah alih lain (83.1%) serta menghubungkan dan memasang peranti baru (79.2%).

Paparan 5: Peratusan penggunaan komputer oleh individu mengikut kemahiran ICT, Malaysia, 2021 dan 2022

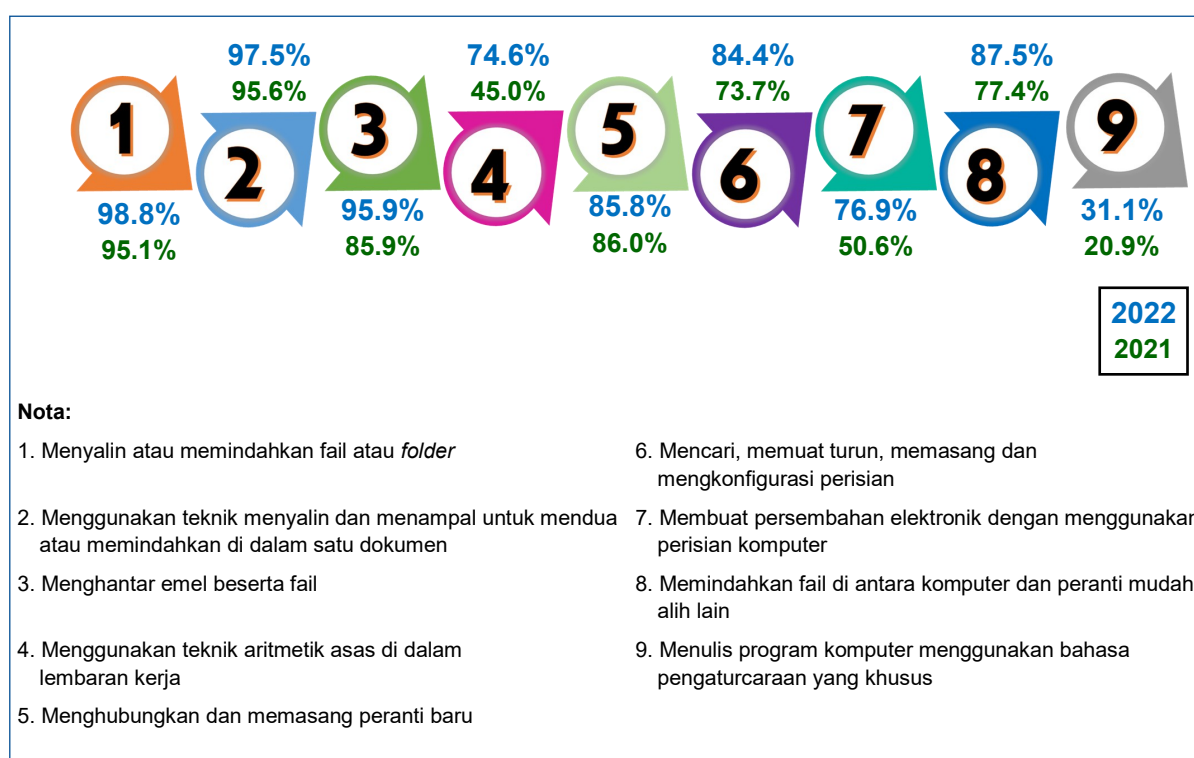


3.4 Kemahiran Komputer di Kalangan Belia

Kemahiran komputer dikategorikan mengikut tiga tahap kemahiran iaitu asas, pertengahan dan lanjutan. Kemahiran komputer oleh belia diukur dalam kalangan individu yang berumur 15 hingga 24 tahun.

Secara keseluruhan, prestasi kemahiran ICT belia mencapai tahap pertengahan dan menghampiri prestasi kemahiran lanjutan. Berdasarkan penemuan survei, 98.8 peratus daripada belia yang menggunakan komputer menjalankan aktiviti menyalin atau memindahkan fail atau *folder*. Bagi tahap pertengahan, 76.9 peratus belia menjalankan aktiviti membuat persembahan elektronik dengan menggunakan perisian komputer.

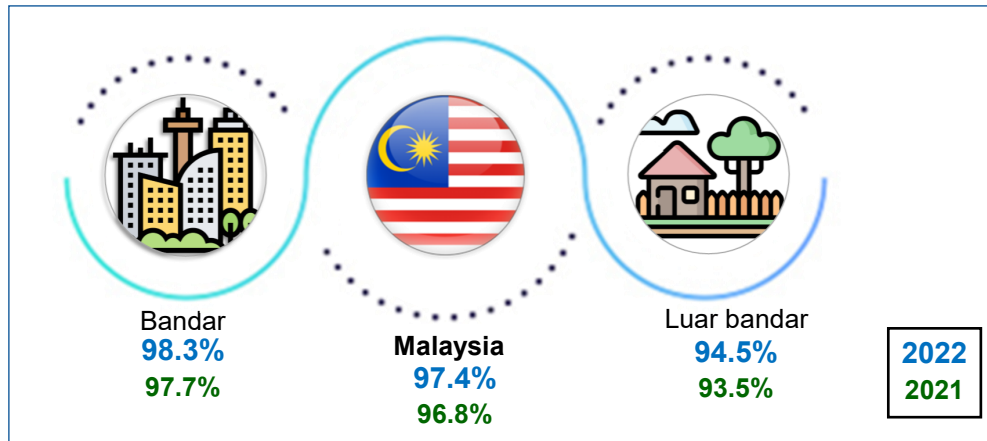
Paparan 6: Peratusan penggunaan komputer oleh belia mengikut kemahiran, Malaysia, 2021 dan 2022



3.5 Penggunaan Internet

Penggunaan Internet oleh individu di Malaysia meningkat kepada 97.4 peratus pada tahun 2022 daripada 96.8 peratus pada tahun 2021 (+0.6 mata peratus). Sementara itu, pengguna Internet di bandar dan luar bandar masing-masing adalah 98.3 peratus dan 94.5 peratus bagi tahun 2022.

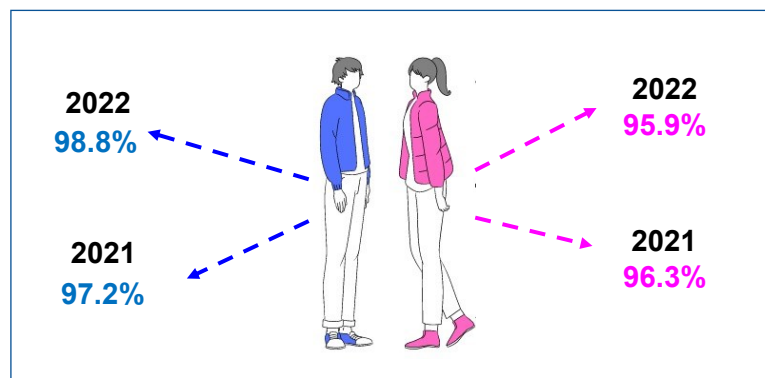
Paparan 7: Peratusan penggunaan Internet oleh individu mengikut strata, Malaysia, 2021 dan 2022



3.6 Penggunaan Internet Mengikut Jantina

Penggunaan Internet bagi lelaki menunjukkan kadar yang lebih tinggi, iaitu 98.8 peratus berbanding perempuan (95.9%) pada tahun 2022. Jurang jantina dalam penggunaan Internet merujuk kepada perbezaan peratusan penggunaan Internet antara pengguna lelaki dan perempuan menunjukkan perbezaan yang lebih besar berbanding tahun sebelumnya dengan jurang 0.9 mata peratus.

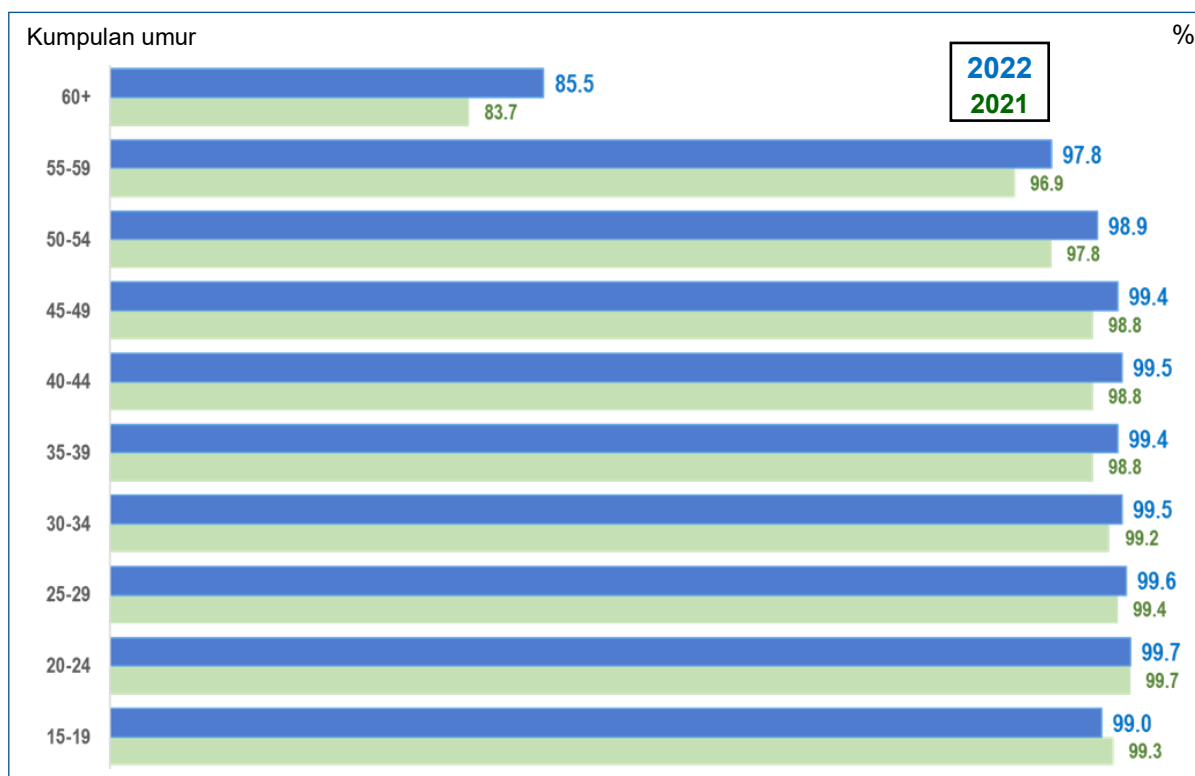
Paparan 8: Peratusan penggunaan Internet oleh individu mengikut jantina, Malaysia, 2021 dan 2022



3.7 Penggunaan Internet Mengikut Kumpulan Umur

Penggunaan Internet mengikut kumpulan umur melebihi 90.0 peratus kecuali untuk kumpulan umur 60 tahun dan ke atas mencatatkan peratusan penggunaan Internet yang rendah iaitu 85.5 peratus bagi tahun 2022. Manakala pengguna Internet yang tertinggi adalah dalam kumpulan umur 20 - 24 tahun iaitu 99.7 peratus pada tahun 2022.

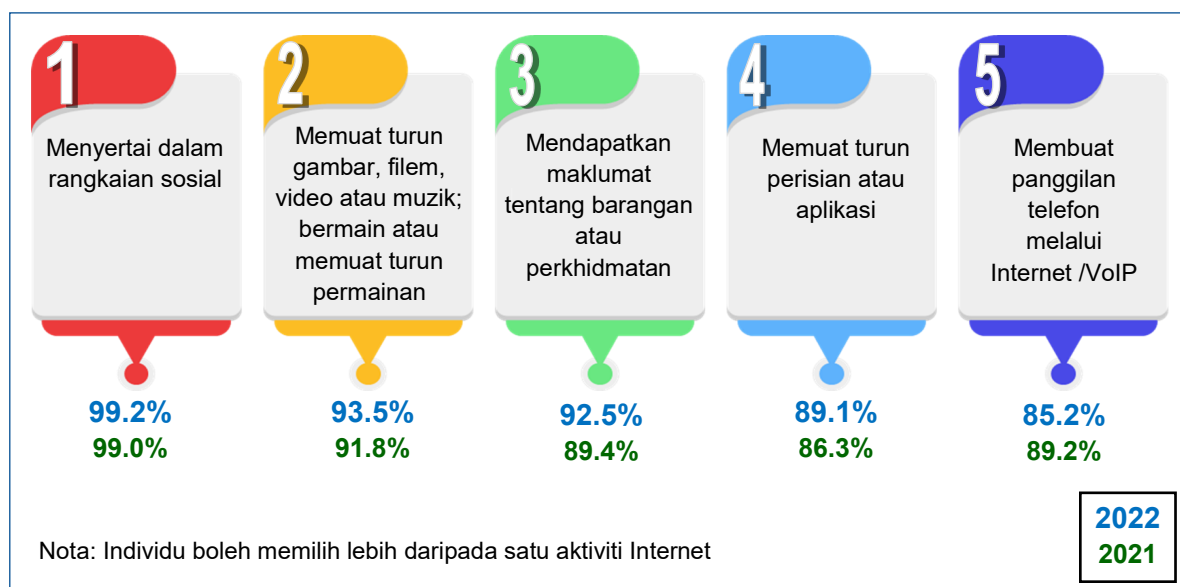
Carta 1: Peratusan penggunaan Internet oleh individu mengikut kumpulan umur, Malaysia, 2021 dan 2022



3.8 Penggunaan Internet Mengikut Aktiviti

Aktiviti penggunaan Internet yang paling popular pada tahun 2022 adalah menyertai dalam rangkaian sosial iaitu 99.2 peratus, diikuti oleh aktiviti memuat turun gambar, filem, video atau muzik; bermain atau memuat turun permainan (93.5%), mendapatkan maklumat tentang barangan atau perkhidmatan (92.5%), memuat turun perisian atau aplikasi (89.1%) dan membuat panggilan telefon melalui Internet/ VoIP (85.2%).

Paparan 9: Peratusan penggunaan Internet oleh individu mengikut lima aktiviti Internet tertinggi, Malaysia, 2021 dan 2022



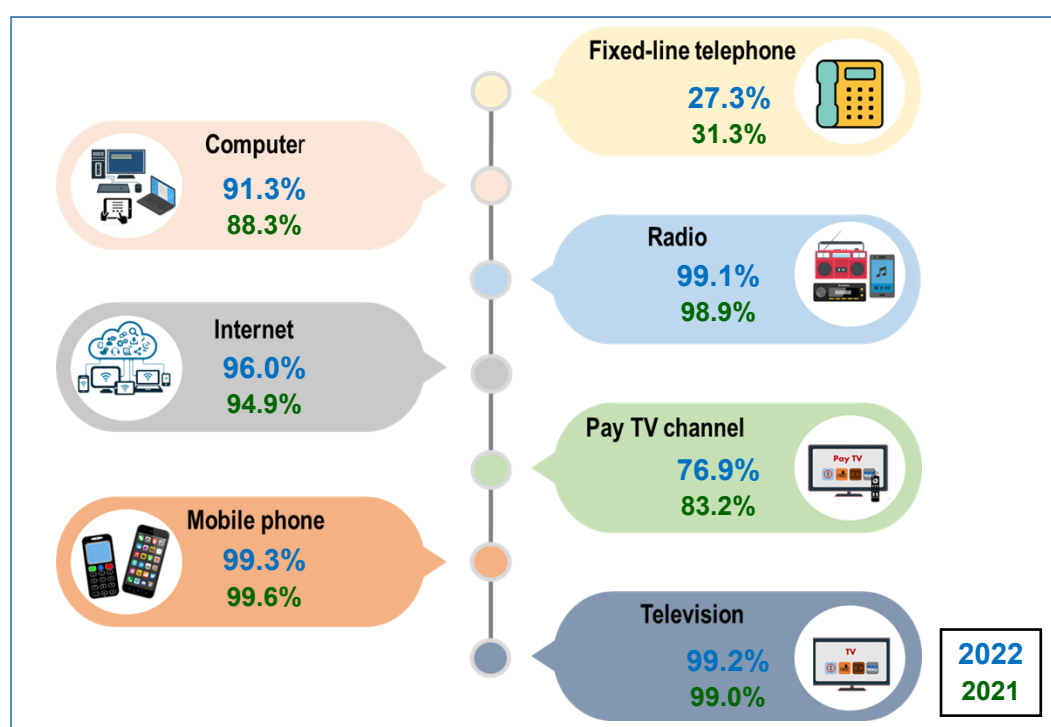
1. INTRODUCTION

This report presents the findings of the 2022 Survey of ICT Use and Access by Individuals and Households (ICTHS). The report provides the most recent statistics on the access and use of ICT equipment and services by individuals and households. The guidelines, concepts and definitions used in this report are based on the *Manual for Measuring ICT Access and Use by Households and Individuals, 2020 Edition* published by the International Telecommunication Union (ITU). The ICTHS 2022 survey was conducted during the transition stage of the COVID-19 pandemic, where digital technology became widely used due to the implementation of the Movement Control Order (MCO). Currently, with COVID-19 no longer being a global health emergency and the transition to an endemic phase, the use of digital technology is no longer inconvenient. These survey findings shed light on the acceptance and adoption of ICT by households and individuals, aiding the government in its preparation for the digitalisation era.

2. ACCESS TO ICT SERVICES AND EQUIPMENT BY HOUSEHOLDS

In this survey, a household is considered to have access to ICT services and equipment if it can still be used during the interview session. Based on the survey findings, the percentage of household access to mobile phone (99.3%), television (99.2%), radio (99.1%) and Internet (96.0%) exceeded 95.0 per cent. Meanwhile the percentage of households with access to fixed-line telephone (27.3%) and pay TV channel (76.9%) demonstrated a decrease.

Exhibit 1: Percentage of households with access to ICT services and equipment, Malaysia, 2021 and 2022

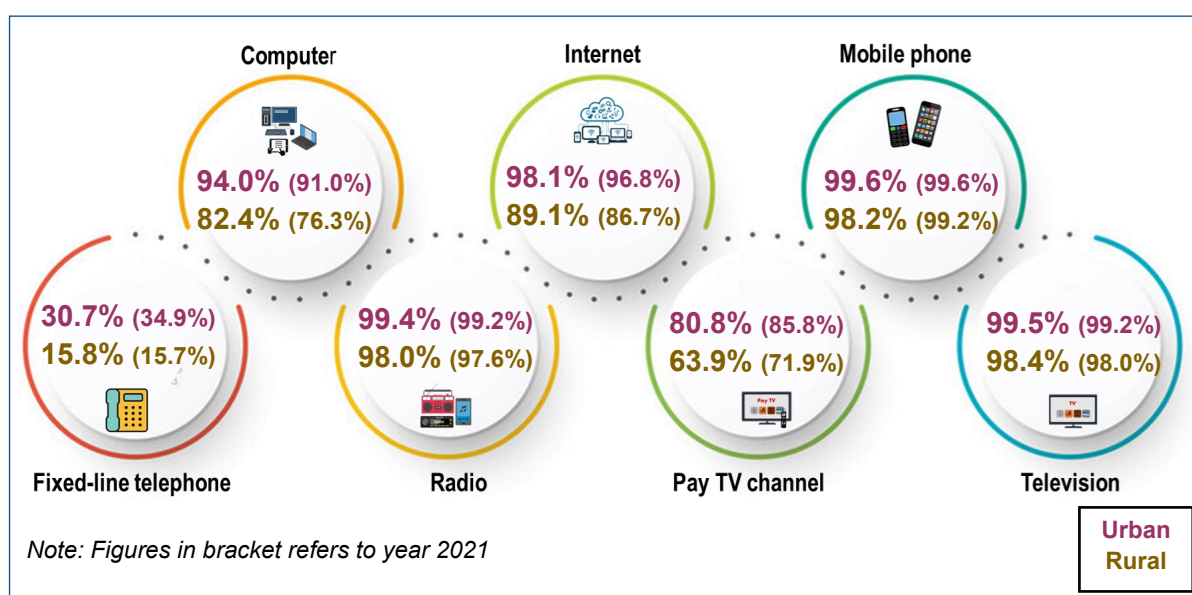


2.1 Access to ICT Services and Equipment by Strata

Urban households exhibited an upward trend in the percentage of access to ICT equipment and services, namely, radio (99.4%), television (99.5%), Internet (98.1%) and computer (94.0%). Meanwhile, the percentage of household access to mobile phones remained unchanged at 99.6 per cent. On the other hand, the percentage of household access showed a decrease in fixed-line telephone (30.7%) and pay TV channel (80.8%).

Rural households also witnessed an increase in access to ICT services and equipment, including Internet (89.1%), television (98.4%), radio (98.0%), computer (82.4%) and fixed-line telephone (15.8%). However, the percentage of household access decreased for mobile phone (98.2%) and pay TV channel (63.9%).

Exhibit 2: Percentage of households with access to ICT services and equipment by strata, Malaysia, 2021 and 2022



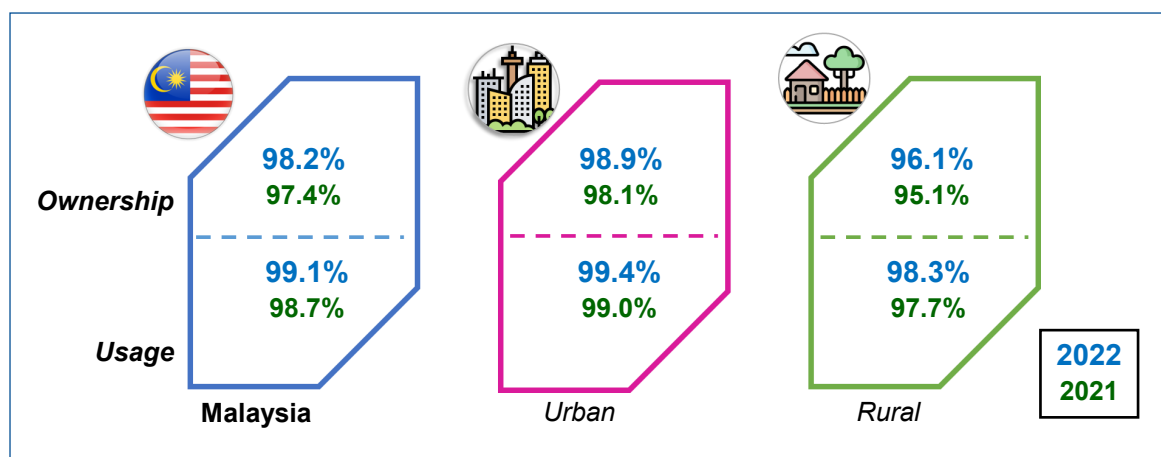
3. USE OF ICT SERVICES AND EQUIPMENT BY INDIVIDUALS

3.1 Mobile Phone Ownership and Usage

Mobile phone ownership by individuals in Malaysia increased from 97.4 per cent in 2021 to 98.2 per cent in 2022. The percentage contribution of mobile phone ownership by individuals in urban and rural areas was recorded at 98.9 per cent and 96.1 per cent respectively.

In terms of usage, individuals who use mobile phone reached 99.1 per cent. Furthermore, mobile phone usage in urban and rural areas was 99.4 per cent and 98.3 per cent respectively.

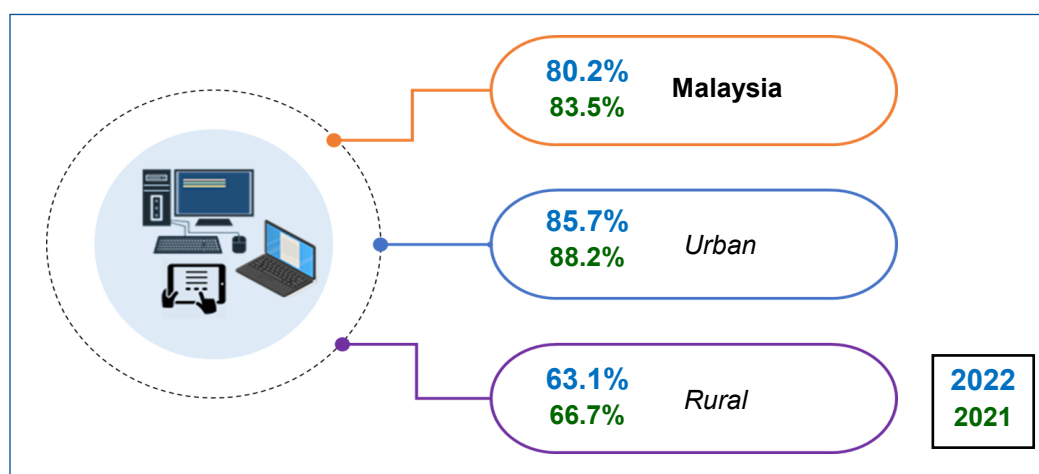
Exhibit 3: Percentage of individuals owning and using mobile phone by strata, Malaysia, 2021 and 2022



3.2 Computer Usage

Computer usage includes the use of all types of computers, namely personal computers, laptops or portable electronic boards. Based on the survey findings, computer usage also showed a decrease from 83.5 per cent in 2021 to 80.2 per cent in 2022 (-3.3 percentage points). Similarly, computer usage in urban and rural areas also decreased to 85.7 per cent (-2.5 percentage points) and 63.1 per cent (-3.6 percentage points) respectively.

Exhibit 4: Percentage of individuals using computer by strata, Malaysia, 2021 and 2022

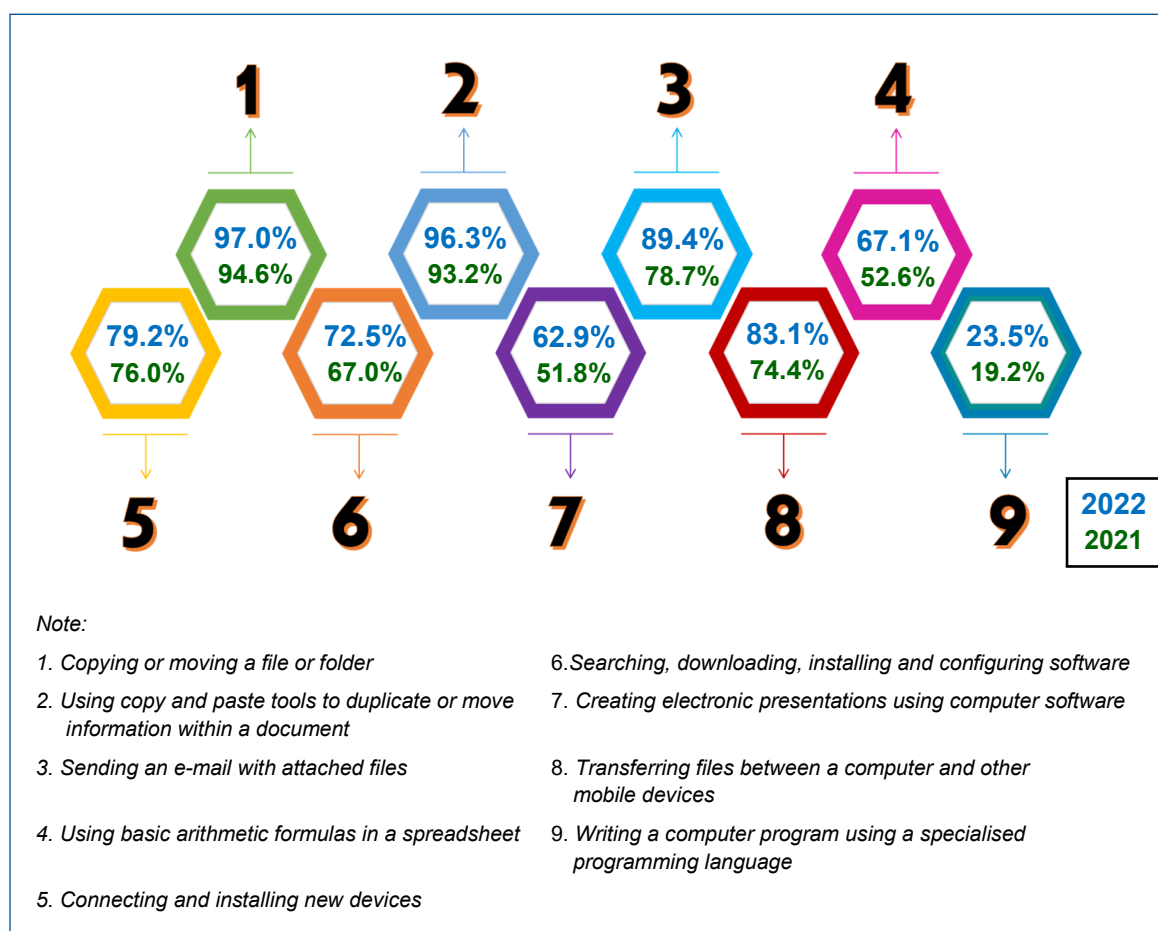


3.3 ICT Skills

ICT skills is one of the indicators monitored in the Sustainable Development Goals (SDGs) which is SDG 4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill. To measure ICT skills, computer activities performed by individuals serve as key indicator. The statistics derived from these activities can provide valuable information for policymakers aiming to enhance ICT skills. By prioritizing the improvement of ICT skills, societies can foster an informed and knowledgeable community.

Five activities that showed the highest percentage in 2022 are copying or moving a file or folder (97.0%). This is followed by the activity of using copy and paste tools to duplicate or move information within a document (96.3%), sending an e-mail with attached files (89.4%), transferring files between a computer and other mobile devices (83.1%) and connecting and installing new devices (79.2%).

Exhibit 5: Percentage of individuals using computer by ICT skills, Malaysia, 2021 and 2022

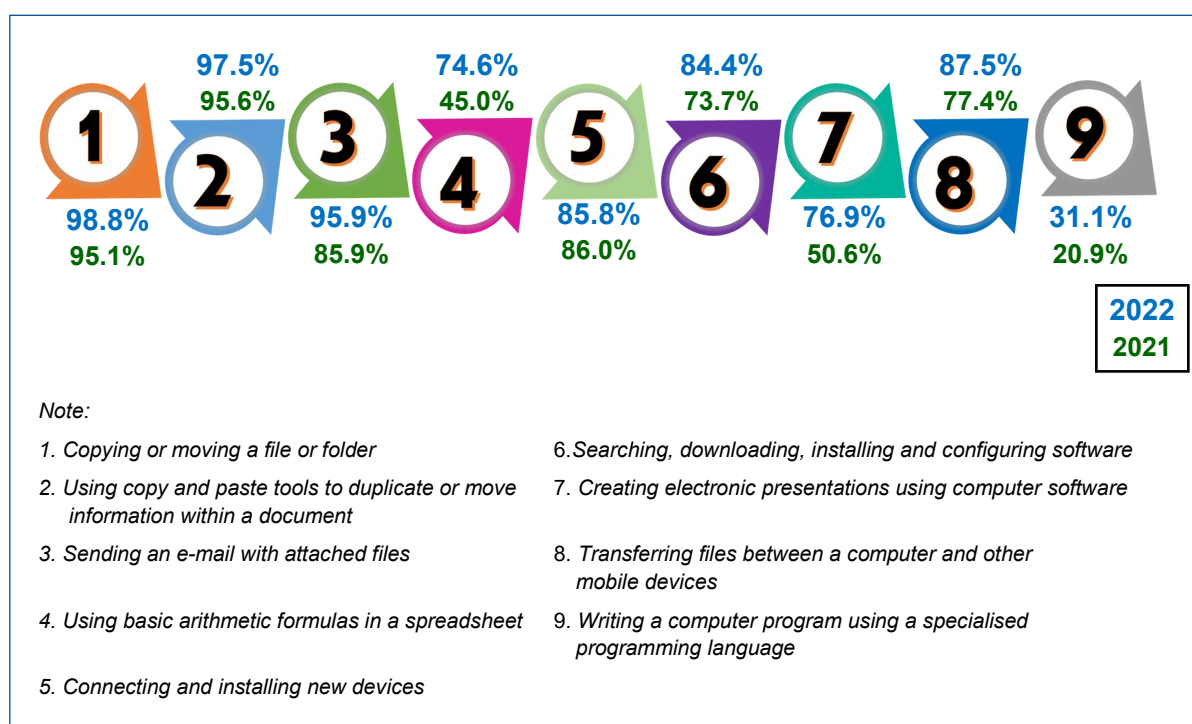


3.4 Computer skills by Youth

Computer skills are categorized to three skill levels, which are basic, intermediate and advance. Computer skills by youth are measured among individuals aged 15 to 24 years.

Overall, the performance of youth ICT skills reached an intermediate level and approached the performance of advanced skills. Based on the findings of the survey, 98.8 per cent of youth who use a computer carry out the activity of copying or transferring files or folders. For the intermediate level, 76.9 per cent of youth create electronic presentation activities using computer software. Approximately, 31.1 per cent of youth has the skill to write a computer program using a specialised programming language.

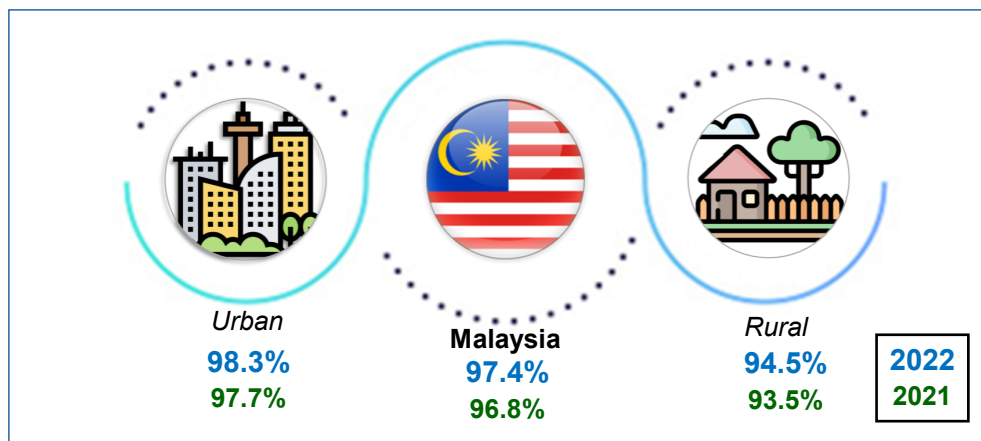
Exhibit 6: Percentage of Youth using computer by ICT skills, Malaysia, 2021 and 2022



3.5 Internet Usage

Internet usage by individuals in Malaysia increased to 97.4 per cent in 2022 from 96.8 per cent in 2021 (+0.6 percentage point). Meanwhile, Internet users in urban and rural areas were 98.3 per cent and 94.5 per cent respectively.

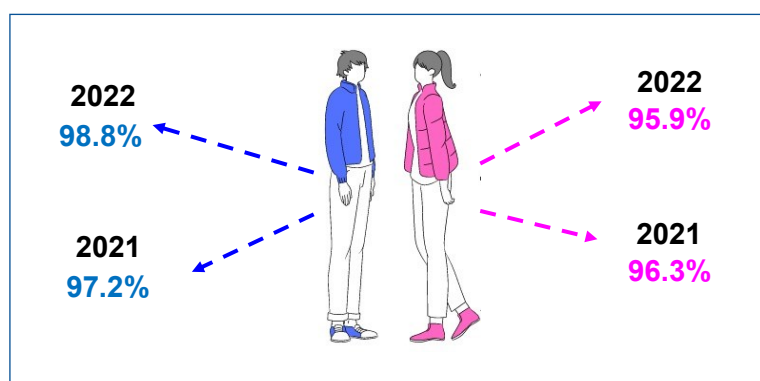
Exhibit 7: Percentage of individuals using the Internet by strata, Malaysia, 2021 and 2022



3.6 Internet Usage by Sex

Internet usage for male displayed a higher rate at 98.8 per cent as compared to female (95.9%) in 2022. The gender gap in Internet usage refers to the disparity in the percentage of Internet usage between male and female users. The gender gap in Internet usage widened by 2.9 percentage points in 2022 indicating a greater difference as compared to the previous year gap of 0.9 percentage point.

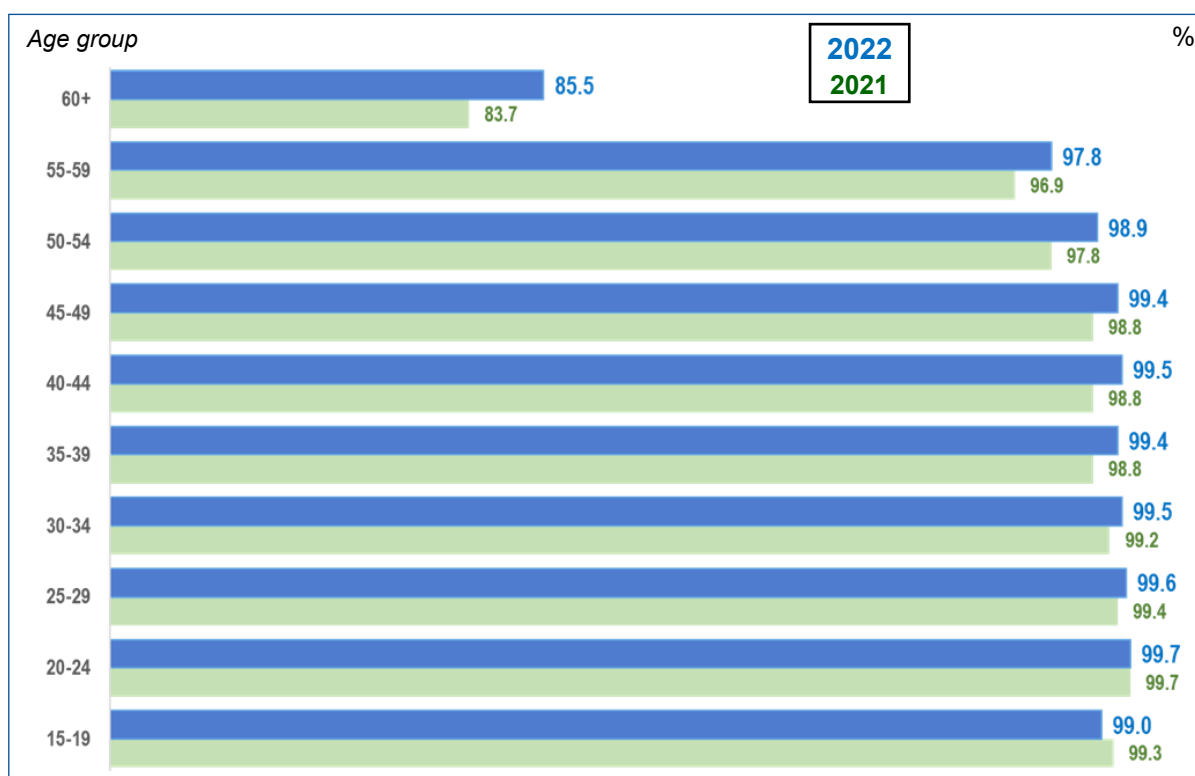
Exhibit 8: Percentage of individuals using the Internet by sex, Malaysia, 2021 and 2022



3.7 Internet Usage by Age Group

Internet usage by age group exceeds 90.0 per cent except for the age group of 60 years and above recorded a low percentage of Internet usage which was 85.5 per cent for the year 2022. Meanwhile the highest Internet users are in the age group of 20-24 years, which is 99.7 per cent in 2022.

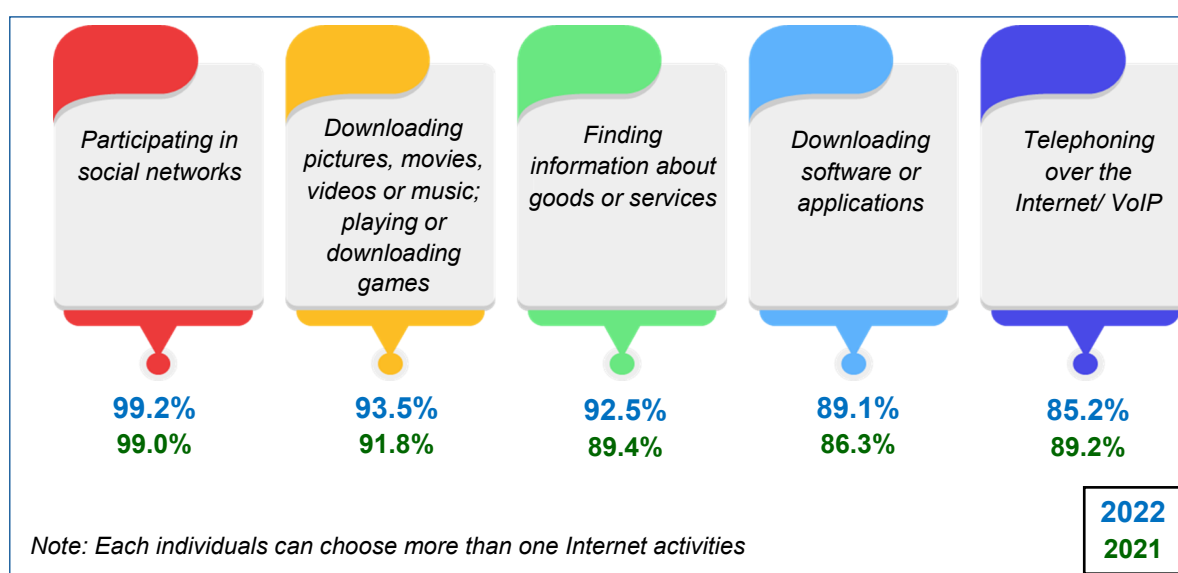
Chart 1: Percentage of individuals using the Internet by age group, Malaysia, 2021 and 2022



3.8 Internet Usage by Activities

The most popular Internet usage activity in 2022 was participating in social networks, with 99.2 per cent, followed by downloading pictures, movies, videos or music; playing or downloading games (93.5%), finding information about goods or services (92.5%), downloading software or applications (89.1%) and making phone calls via Internet/VoIP (85.2%).

Exhibit 9: Percentage of individuals using the Internet by top five Internet activities, Malaysia, 2021 and 2022





STATISTIK CAPAIAN ICT OLEH ISI RUMAH
STATISTICS OF ICT ACCESS BY HOUSEHOLDS



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Jadual 1.1 : Peratusan capaian telefon bimbit oleh isi rumah mengikut negeri, jenis dan strata, Malaysia, 2022

Table 1.1 : Percentage of households with access to mobile phone by state, type and strata, Malaysia, 2022

Negeri State	Telefon bimbit Mobile phone			Telefon biasa Feature phone			Telefon pintar Smart phone		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	99.3	99.6	98.2	16.2	13.5	25.4	97.3	98.4	93.7
Johor	99.5	99.6	99.2	21.1	21.3	20.4	99.0	99.1	98.6
Kedah	99.4	99.6	99.2	21.3	15.7	33.0	96.0	96.9	94.2
Kelantan	99.2	99.4	99.1	25.8	21.5	29.4	94.3	95.8	93.0
Melaka	99.6	99.6	99.6	19.5	19.1	24.3	97.2	97.3	96.1
Negeri Sembilan	99.3	99.7	98.2	12.4	9.4	19.8	97.5	99.1	93.4
Pahang	99.1	99.3	98.9	17.1	16.3	18.1	94.8	95.6	93.9
Pulau Pinang	99.8	99.9	99.5	14.1	14.0	14.7	98.0	98.1	96.9
Perak	99.1	99.1	99.3	19.5	16.8	27.2	95.9	96.1	95.2
Perlis	99.6	99.5	99.7	23.3	23.3	23.2	96.6	96.3	97.0
Selangor	99.7	99.7	99.1	9.1	8.8	16.9	99.2	99.3	96.3
Terengganu	98.0	98.5	97.3	15.9	13.3	20.7	96.9	97.4	95.9
Sabah	99.2	99.6	98.8	20.0	13.9	27.4	96.7	98.2	94.7
Sarawak	97.2	99.8	93.8	21.1	13.8	30.7	93.0	99.1	84.8
W.P. Kuala Lumpur	100.0	100.0	n.a.	7.8	7.8	n.a.	99.8	99.8	n.a.
W.P. Labuan	99.3	99.6	96.8	4.7	3.8	12.9	99.3	99.6	96.8
W.P. Putrajaya	100.0	100.0	n.a.	10.9	10.9	n.a.	100.0	100.0	n.a.

Nota: Telefon bimbit meliputi telefon biasa dan telefon pintar

Note: Mobile phone includes feature phone and smart phone

Jadual 1.2 : Peratusan capaian Internet oleh isi rumah mengikut negeri, jenis perkhidmatan dan strata, Malaysia, 2022

Table 1.2 : Percentage of households with Internet access by state, type of service and strata, Malaysia, 2022

Negeri State	Internet			Jalur lebar mudah alih Mobile broadband			Jalur lebar tetap Fixed broadband		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	96.0	98.1	89.1	95.5	97.1	90.1	46.4	53.3	23.7
Johor	98.5	98.9	97.3	97.3	97.7	95.9	52.3	55.8	39.4
Kedah	95.8	97.2	92.8	95.4	96.8	92.5	34.3	42.9	16.4
Kelantan	93.9	95.2	92.9	93.0	93.9	92.2	23.7	32.7	16.3
Melaka	96.2	96.4	94.2	95.5	95.7	92.6	55.2	57.1	35.1
Negeri Sembilan	95.9	98.2	90.1	94.4	97.0	88.2	46.8	52.8	32.4
Pahang	94.9	95.8	94.0	92.9	93.1	92.6	31.1	38.9	22.0
Pulau Pinang	99.2	99.3	96.9	96.9	97.0	96.2	54.9	55.6	44.9
Perak	94.4	95.9	90.3	91.3	93.0	86.4	39.5	44.6	25.5
Perlis	94.6	97.3	91.4	94.6	97.3	91.4	31.5	37.7	23.8
Selangor	99.0	99.1	96.3	99.0	99.1	97.1	59.3	59.9	43.7
Terengganu	93.9	95.0	92.1	92.5	94.1	89.5	27.9	29.2	25.6
Sabah	89.6	97.1	80.6	95.1	97.4	92.4	30.6	42.0	16.7
Sarawak	89.8	97.9	79.1	89.1	97.8	77.6	32.2	43.6	17.0
W.P. Kuala Lumpur	99.8	99.8	n.a.	97.1	97.1	n.a.	73.6	73.6	n.a.
W.P. Labuan	99.7	100.0	96.8	93.9	94.3	90.3	41.6	41.5	41.9
W.P. Putrajaya	100.0	100.0	n.a.	99.2	99.2	n.a.	73.7	73.7	n.a.

Nota: Internet meliputi jalur lebar mudah alih dan jalur lebar tetap

Note: Internet includes mobile broadband and fixed broadband

Jadual 1.3 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan strata, Malaysia, 2022

Table 1.3 : Percentage of households with access to ICT services and equipment by state and strata, Malaysia, 2022

Negeri State	Komputer Computer			Siaran TV berbayar Pay TV channel			Televisyen Television		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	91.3	94.0	82.4	76.9	80.8	63.9	99.2	99.5	98.4
Johor	92.4	94.0	86.8	82.8	83.7	79.2	99.6	99.7	99.3
Kedah	86.3	89.3	80.1	57.7	60.5	52.0	99.4	99.7	98.9
Kelantan	87.5	90.3	85.2	57.2	57.1	57.2	99.0	99.5	98.5
Melaka	91.6	91.6	92.2	82.1	82.3	79.9	99.9	100.0	99.2
Negeri Sembilan	85.7	90.2	74.7	77.4	77.9	76.1	99.7	99.7	99.8
Pahang	87.2	91.5	82.2	77.1	78.3	75.7	99.0	99.4	98.6
Pulau Pinang	95.1	95.0	97.2	81.3	82.0	72.4	99.7	99.6	100.0
Perak	90.6	90.1	92.1	76.0	77.9	70.5	99.2	99.7	98.0
Perlis	88.7	90.4	86.6	78.0	81.1	74.1	98.8	98.8	98.8
Selangor	95.7	95.9	90.1	84.8	85.2	76.3	99.8	99.8	99.3
Terengganu	89.4	92.4	84.1	69.9	68.0	73.3	99.8	99.9	99.4
Sabah	83.4	91.7	73.2	66.2	73.0	57.9	97.1	96.8	97.5
Sarawak	87.7	93.5	79.9	63.0	77.2	44.1	97.6	98.3	96.7
W.P. Kuala Lumpur	100.0	100.0	n.a.	96.0	96.0	n.a.	100.0	100.0	n.a.
W.P. Labuan	97.0	97.7	90.3	90.5	90.6	90.3	99.0	98.9	100.0
W.P. Putrajaya	100.0	100.0	n.a.	96.8	96.8	n.a.	100.0	100.0	n.a.

Jadual 1.3 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan strata, Malaysia, 2022 (samb.)

Table 1.3 : Percentage of households with access to ICT services and equipment by state and strata, Malaysia, 2022 (cont'd)

Negeri State	Radio			Telefon talian tetap Fixed-line telephone		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	99.1	99.4	98.0	27.3	30.7	15.8
Johor	99.9	100.0	99.8	30.5	31.9	25.1
Kedah	99.6	99.9	99.1	16.0	18.6	10.7
Kelantan	99.7	99.8	99.6	16.3	20.4	12.9
Melaka	99.6	99.7	98.8	53.4	56.1	25.7
Negeri Sembilan	99.5	99.6	99.5	48.5	57.3	27.1
Pahang	99.7	99.8	99.5	21.8	25.8	17.1
Pulau Pinang	99.9	99.9	100.0	28.6	28.1	35.7
Perak	97.4	97.6	96.8	20.1	20.7	18.2
Perlis	99.2	99.3	99.1	34.6	43.9	23.2
Selangor	99.5	99.6	97.7	29.2	29.2	30.0
Terengganu	99.8	99.8	99.9	23.2	22.0	25.4
Sabah	97.4	98.2	96.3	17.4	26.2	6.6
Sarawak	97.0	98.8	94.7	17.0	24.5	7.0
W.P. Kuala Lumpur	99.8	99.8	n.a.	42.9	42.9	n.a.
W.P. Labuan	99.3	99.6	96.8	36.2	37.4	25.8
W.P. Putrajaya	100.0	100.0	n.a.	54.3	54.3	n.a.

STATISTIK PENGGUNAAN ICT OLEH INDIVIDU
STATISTICS OF ICT USE BY INDIVIDUALS

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Jadual 2.1 : Peratusan penggunaan dan pemilikan telefon bimbit oleh individu mengikut negeri dan strata, Malaysia, 2022

Table 2.1 : Percentage of individuals using and owning mobile phone by state and strata, Malaysia, 2022

Negeri State	Penggunaan / Usage			Pemilikan / Ownership		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	99.1	99.4	98.3	98.2	98.9	96.1
Johor	99.4	99.5	99.1	99.6	99.9	98.7
Kedah	98.9	99.1	98.4	98.0	98.6	97.0
Kelantan	99.1	99.7	98.6	96.6	98.5	94.9
Melaka	99.2	99.2	99.6	98.9	99.0	98.0
Negeri Sembilan	99.1	99.8	97.7	97.8	99.1	95.1
Pahang	99.2	99.2	99.1	98.7	99.2	98.2
Pulau Pinang	99.6	99.7	99.0	98.7	98.8	97.9
Perak	98.4	98.7	97.7	97.1	97.8	95.1
Perlis	98.4	98.8	98.0	96.4	97.1	95.6
Selangor	99.6	99.6	98.9	99.3	99.4	98.1
Terengganu	98.8	98.8	98.6	97.5	97.6	97.4
Sabah	99.0	99.3	98.7	95.9	96.2	95.5
Sarawak	97.9	99.0	96.4	96.4	98.9	92.9
W.P. Kuala Lumpur	99.8	99.8	n.a.	99.8	99.8	n.a.
W.P. Labuan	99.9	99.9	99.6	99.1	99.2	98.3
W.P. Putrajaya	99.9	99.9	n.a.	99.7	99.7	n.a.

Jadual 2.2 : Peratusan pemilikan telefon bimbit mengikut negeri dan jantina, Malaysia, 2022

Table 2.2 : Percentage of mobile phone ownership by state and sex, Malaysia, 2022

Negeri State	Jumlah Total	Lelaki Male	Perempuan Female	(%)
MALAYSIA	98.2	99.1	97.2	
Johor	99.6	99.8	99.4	
Kedah	98.0	98.6	97.4	
Kelantan	96.6	97.6	95.5	
Melaka	98.9	99.5	98.3	
Negeri Sembilan	97.8	97.9	97.8	
Pahang	98.7	99.4	98.0	
Pulau Pinang	98.7	99.3	98.1	
Perak	97.1	99.2	94.9	
Perlis	96.4	96.9	96.0	
Selangor	99.3	99.9	98.6	
Terengganu	97.5	99.4	95.6	
Sabah	95.9	97.4	94.3	
Sarawak	96.4	98.4	94.3	
W.P. Kuala Lumpur	99.8	99.7	99.9	
W.P. Labuan	99.1	99.1	99.2	
W.P. Putrajaya	99.7	100.0	99.3	

Jadual 2.3 : Peratusan individu menggunakan komputer mengikut negeri dan strata, Malaysia, 2022

Table 2.3 : Percentage of individuals using computer by state and strata, Malaysia, 2022

Negeri State	Jumlah Total	Bandar Urban	Luar bandar Rural	
MALAYSIA	80.2	85.7	63.1	
Johor	83.7	86.9	72.9	
Kedah	73.0	76.9	65.5	
Kelantan	73.7	81.3	67.4	
Melaka	86.0	86.9	77.6	
Negeri Sembilan	75.8	81.8	62.7	
Pahang	77.6	83.7	70.5	
Pulau Pinang	84.8	85.5	78.1	
Perak	77.5	80.5	69.1	
Perlis	74.4	75.0	73.8	
Selangor	91.2	91.6	80.5	
Terengganu	80.2	84.1	73.1	
Sabah	60.3	73.4	44.6	
Sarawak	67.7	78.5	52.9	
W.P. Kuala Lumpur	94.9	94.9	n.a.	
W.P. Labuan	87.3	88.7	77.3	
W.P. Putrajaya	97.0	97.0	n.a.	

Jadual 2.4 : Peratusan individu menggunakan komputer mengikut negeri, jenis kemahiran ICT dan strata, Malaysia, 2022

Table 2.4 : Percentage of individuals using computer by state, type of ICT skills and strata, Malaysia, 2022

(%)

Negeri State	Menyalin atau memindahkan fail <i>Copying or moving a file or folder</i>			Menggunakan teknik menyalin dan menampal untuk pendua atau memindahkan maklumat di dalam satu dokumen <i>Using copy and paste tools to duplicate or move information within a document</i>			Menghantar e-mel berserta fail <i>Sending an e-mail with attached files</i>		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	97.0	97.0	96.9	96.3	96.8	94.5	89.4	89.6	88.4
Johor	96.4	96.2	97.4	94.3	94.3	94.1	92.3	92.3	92.4
Kedah	98.6	98.1	99.8	99.6	99.7	99.2	94.2	94.6	93.1
Kelantan	98.3	97.8	98.8	95.8	92.4	99.1	90.7	91.6	89.7
Melaka	99.5	99.6	98.7	94.9	95.2	91.7	85.2	85.6	81.0
Negeri Sembilan	98.1	98.8	96.0	94.5	96.0	90.4	96.2	98.5	89.5
Pahang	96.8	98.0	95.0	96.6	96.6	96.5	91.0	92.3	89.1
Pulau Pinang	94.6	94.3	98.5	97.0	97.0	97.1	79.2	79.1	80.2
Perak	94.1	94.2	93.6	96.0	98.1	89.4	85.6	86.9	81.4
Perlis	97.7	96.5	99.2	97.0	96.5	97.6	96.6	96.2	97.1
Selangor	96.5	96.6	94.7	96.2	96.1	96.8	90.8	90.9	88.9
Terengganu	98.4	98.5	98.3	94.8	97.8	88.8	78.0	77.5	79.0
Sabah	97.0	97.9	95.3	97.3	98.3	95.4	88.7	85.7	94.6
Sarawak	97.4	97.3	97.5	95.4	98.1	89.9	81.2	81.0	81.5
W.P. Kuala Lumpur	99.6	99.6	n.a.	99.7	99.7	n.a.	96.6	96.6	n.a.
W.P. Labuan	99.0	98.9	99.6	99.5	100.0	95.6	92.1	93.3	83.1
W.P. Putrajaya	98.8	98.8	n.a.	98.9	98.9	n.a.	95.2	95.2	n.a.

Jadual 2.4 : Peratusan individu menggunakan komputer mengikut negeri, jenis kemahiran ICT dan strata, Malaysia, 2022 (samb.)

Table 2.4 : Percentage of individuals using computer by state, type of ICT skills and strata, Malaysia, 2022 (cont'd)

Negeri State	Menggunakan teknik aritmetik asas di dalam lembaran kerja <i>Using basic arithmetic formulas in a spreadsheet</i>			Menghubungkan dan memasang peranti baru <i>Connecting and installing new devices</i>			Mencari, memuat turun, memasang dan mengkonfigurasi perisian <i>Searching, downloading, installing and configuring software</i>		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	67.1	67.9	63.7	79.2	80.0	75.7	72.5	73.2	69.9
Johor	71.8	71.0	75.0	73.9	74.9	69.8	70.6	71.7	66.2
Kedah	72.4	75.7	64.9	82.4	83.3	80.4	78.3	78.4	77.8
Kelantan	52.0	56.0	48.1	74.4	71.9	76.8	70.0	67.2	72.8
Melaka	71.1	71.1	70.9	75.4	75.6	73.2	75.7	76.9	62.3
Negeri Sembilan	75.4	77.0	70.9	75.4	74.8	77.1	75.1	73.3	80.3
Pahang	69.2	73.8	62.8	73.7	73.7	73.6	70.3	73.3	66.0
Pulau Pinang	63.1	63.1	62.5	79.6	79.2	84.3	69.4	69.1	72.0
Perak	53.6	53.2	54.8	79.3	80.3	76.1	63.9	65.0	60.5
Perlis	47.5	51.0	43.2	74.0	76.2	71.3	65.3	67.4	62.6
Selangor	67.4	67.8	56.2	83.7	83.9	77.1	73.6	74.1	58.2
Terengganu	59.1	58.0	61.3	71.9	71.7	72.2	63.5	61.1	68.4
Sabah	72.7	68.7	80.6	79.2	79.5	78.5	73.8	71.6	78.1
Sarawak	61.9	63.4	58.8	77.0	77.6	75.8	71.4	73.0	68.2
W.P. Kuala Lumpur	76.0	76.0	n.a.	85.2	85.2	n.a.	83.5	83.5	n.a.
W.P. Labuan	89.2	90.5	79.2	88.5	90.7	70.8	76.4	76.6	74.7
W.P. Putrajaya	77.4	77.4	n.a.	89.6	89.6	n.a.	87.0	87.0	n.a.

Jadual 2.4 : Peratusan individu menggunakan komputer mengikut negeri, jenis kemahiran ICT dan strata, Malaysia, 2022 (samb.)

Table 2.4 : Percentage of individuals using computer by state, type of ICT skills and strata, Malaysia, 2022 (cont'd)

Negeri State	Membuat persembahan elektronik dengan menggunakan perisian komputer <i>Creating electronic presentations using computer software</i>			Memindahkan fail di antara komputer dan peranti mudah alih lain <i>Transferring files between a computer and other devices</i>			Menulis program komputer menggunakan bahasa pengaturcaraan yang khusus <i>Writing a computer program using a specialised programming language</i>		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	62.9	63.2	61.5	83.1	83.6	80.9	23.5	24.5	19.2
Johor	64.2	64.5	63.3	80.9	80.9	80.5	22.7	24.4	15.7
Kedah	60.3	63.5	53.1	86.9	89.5	81.0	21.7	23.9	17.0
Kelantan	63.2	66.0	60.5	86.8	87.9	85.8	24.3	25.3	23.4
Melaka	60.5	61.9	44.6	84.7	84.7	84.4	26.0	26.5	20.3
Negeri Sembilan	74.7	78.3	64.7	84.7	86.2	80.5	26.8	29.3	19.5
Pahang	59.2	63.0	53.9	87.1	86.8	87.5	21.6	23.5	19.1
Pulau Pinang	53.5	53.9	49.4	72.4	72.3	73.0	25.1	24.8	28.1
Perak	47.8	48.6	45.2	71.7	73.1	67.1	23.2	24.8	18.1
Perlis	49.9	49.7	50.1	87.7	83.2	93.3	17.8	23.2	11.1
Selangor	59.4	59.9	45.7	87.5	87.7	80.2	20.7	20.7	20.9
Terengganu	69.0	66.8	73.6	71.1	69.9	73.6	23.9	24.5	22.8
Sabah	74.4	70.8	81.3	84.4	82.0	89.1	24.1	24.4	23.4
Sarawak	65.8	64.1	69.1	74.9	75.2	74.1	18.1	20.3	13.6
W.P. Kuala Lumpur	76.6	76.6	n.a.	92.0	92.0	n.a.	36.6	36.6	n.a.
W.P. Labuan	92.4	91.4	100.0	97.6	98.4	90.6	21.9	22.8	14.1
W.P. Putrajaya	90.3	90.3	n.a.	98.8	98.8	n.a.	35.8	35.8	n.a.

Jadual 2.5 : Peratusan belia menggunakan komputer mengikut negeri, jenis kemahiran ICT dan strata, Malaysia, 2022

Table 2.5 : Percentage of youth using computer by state, type of ICT skills and strata, Malaysia, 2022

Negeri State	Menyalin atau memindahkan fail Copying or moving a file or folder				Menggunakan teknik menyalin dan menampal untuk pendua atau memindahkan maklumat di dalam satu dokumen Using copy and paste tools to duplicate or move information within a document				Menghantar e-mel berserta fail Sending an e-mail with attached files			
	Jumlah Total	Bandar Urban	Luar bandar Rural		Jumlah Total	Bandar Urban	Luar bandar Rural		Jumlah Total	Bandar Urban	Luar bandar Rural	
MALAYSIA	98.8	99.3	97.4		97.5	97.6	97.2		95.9	95.8	96.3	
Johor	97.9	97.9	97.7		93.8	93.5	94.9		98.8	98.6	99.4	
Kedah	98.2	97.4	100.0		99.4	99.6	99.0		98.2	98.0	98.5	
Kelantan	99.4	99.2	99.7		96.9	94.4	99.1		99.2	99.1	99.2	
Melaka	99.9	100.0	99.1		97.4	98.3	88.8		97.1	97.6	92.6	
Negeri Sembilan	99.7	100.0	98.6		96.0	96.8	93.0		98.9	100.0	95.1	
Pahang	96.8	99.7	93.4		96.0	96.1	96.0		97.8	99.5	95.9	
Pulau Pinang	99.8	99.7	100.0		99.2	99.1	100.0		93.6	94.7	87.2	
Perak	99.4	99.5	99.2		97.7	97.9	97.4		94.4	95.7	91.1	
Perlis	97.3	96.8	97.8		96.8	97.3	96.4		94.7	94.7	94.7	
Selangor	99.8	99.8	100.0		99.4	99.4	100.0		95.6	95.6	94.9	
Terengganu	100.0	100.0	100.0		99.2	99.9	98.1		94.5	96.3	91.4	
Sabah	96.3	99.8	91.6		98.4	98.2	98.7		94.7	92.2	97.9	
Sarawak	99.7	99.6	99.9		96.9	97.7	95.2		92.4	92.0	93.3	
W.P. Kuala Lumpur	100.0	100.0	n.a.		100.0	100.0	n.a.		86.2	86.2	n.a.	
W.P. Labuan	100.0	100.0	100.0		97.0	100.0	65.9		78.1	80.2	56.1	
W.P. Putrajaya	97.6	97.6	n.a.		92.1	92.1	n.a.		70.7	70.7	n.a.	

Jadual 2.5 : Peratusan belia menggunakan komputer mengikut negeri, jenis kemahiran ICT dan strata, Malaysia, 2022 (samb.)

Table 2.5 : Percentage of youth using computer by state, type of ICT skills and strata, Malaysia, 2022 (cont'd)

Negeri State	Menggunakan teknik aritmetik asas di dalam lembaran kerja <i>Using basic arithmetic formulas in a spreadsheet</i>			Menghubungkan dan memasang peranti baru <i>Connecting and installing new devices</i>			Mencari, memuat turun, memasang dan mengkonfigurasi perisian <i>Searching, downloading, installing and configuring software</i>		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	74.6	74.0	76.2	85.8	85.6	86.6	84.4	84.9	82.8
Johor	71.6	70.6	75.6	78.6	79.5	75.0	83.0	83.8	79.8
Kedah	87.3	89.7	82.2	95.4	96.4	93.3	88.1	89.9	84.2
Kelantan	75.8	78.5	73.6	83.8	80.7	86.5	80.9	80.8	81.1
Melaka	88.8	89.0	86.4	76.5	75.0	90.7	89.6	90.2	84.1
Negeri Sembilan	80.1	80.9	77.2	81.1	80.8	82.4	86.8	86.2	89.2
Pahang	85.3	88.8	81.4	81.8	82.6	80.8	84.5	86.0	82.8
Pulau Pinang	74.2	75.4	67.6	86.7	86.7	87.0	89.6	89.1	92.4
Perak	60.4	56.3	70.4	86.0	84.3	90.2	79.5	79.1	80.4
Perlis	42.0	42.9	41.0	87.9	86.8	89.2	80.2	85.1	74.7
Selangor	77.5	77.9	43.9	92.0	92.0	91.0	88.4	88.5	84.3
Terengganu	63.8	63.3	64.8	91.3	91.9	90.4	80.9	81.9	79.1
Sabah	75.6	66.8	87.1	90.7	90.2	91.4	78.4	76.4	80.9
Sarawak	70.8	70.9	70.7	88.2	88.4	87.8	92.3	92.0	92.9
W.P. Kuala Lumpur	53.1	53.1	n.a.	68.9	68.9	n.a.	72.1	72.1	n.a.
W.P. Labuan	97.6	99.0	83.0	96.3	96.8	90.8	94.2	100.0	34.1
W.P. Putrajaya	69.7	69.7	n.a.	94.3	94.3	n.a.	75.8	75.8	n.a.

Jadual 2.5 : Peratusan belia menggunakan komputer mengikut negeri, jenis kemahiran ICT dan strata, Malaysia, 2022 (samb.)

Table 2.5 : Percentage of youth using computer by state, type of ICT skills and strata, Malaysia, 2022 (cont'd)

Negeri State	Membuat persembahan elektronik dengan menggunakan perisian komputer <i>Creating electronic presentations using computer software</i>			Memindahkan fail di antara komputer dan peranti mudah alih lain <i>Transferring files between a computer and other devices</i>			Menulis program komputer menggunakan bahasa pengaturcaraan yang khusus <i>Writing a computer program using a specialised programming language</i>		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	76.9	76.3	78.8	87.5	88.1	85.7	31.1	30.5	32.8
Johor	69.3	69.4	68.7	81.4	81.8	79.5	28.8	29.7	25.6
Kedah	82.3	84.6	77.7	91.5	91.4	91.7	31.7	33.3	28.5
Kelantan	82.5	83.9	81.2	82.3	84.3	80.6	38.7	40.0	37.5
Melaka	77.1	77.8	71.2	82.8	82.5	85.1	46.8	48.1	34.5
Negeri Sembilan	80.7	80.7	80.6	75.2	76.4	71.1	49.5	51.6	41.9
Pahang	82.4	84.6	79.9	84.9	84.8	85.0	32.7	34.4	30.8
Pulau Pinang	72.4	74.3	61.6	89.3	90.5	82.6	25.4	22.6	41.2
Perak	62.9	60.5	68.6	88.3	88.5	87.8	31.8	32.8	29.2
Perlis	59.6	60.9	58.1	81.8	74.3	90.3	20.8	24.4	16.7
Selangor	75.6	75.9	67.3	95.5	95.7	90.4	28.6	28.1	46.1
Terengganu	92.1	93.5	89.5	92.0	93.2	89.8	27.5	27.6	27.3
Sabah	86.0	83.7	89.1	91.9	91.1	92.9	29.9	25.1	36.2
Sarawak	80.6	79.2	83.5	88.2	89.5	85.7	28.5	25.6	33.9
W.P. Kuala Lumpur	65.6	65.6	n.a.	81.5	81.5	n.a.	13.6	13.6	n.a.
W.P. Labuan	97.1	96.8	100.0	98.5	100.0	83.0	23.2	20.4	51.8
W.P. Putrajaya	94.3	94.3	n.a.	98.9	98.9	n.a.	22.4	22.4	n.a.

(%)

Jadual 2.6 : Peratusan individu menggunakan komputer mengikut jenis kemahiran ICT dan jantina, Malaysia, 2022

Table 2.6 : Percentage of individuals using computer by type of ICT skills and sex, Malaysia, 2022

Jenis Kemahiran ICT Type of ICT Skills	Jantina / sex			Perempuan Female
	Jumlah Total	Lelaki Male		
Jumlah / Total	80.2	85.0		74.9
Menyalin atau memindahkan fail <i>Copying or moving a file or folder</i>	97.0	97.1		96.9
Menggunakan teknik menyalin dan menampal untuk pendua atau memindahkan maklumat di dalam satu dokumen <i>Using copy and paste tools to duplicate or move information within a document</i>	96.3	98.1		94.2
Menghantar emel berserta fail <i>Sending an e-mail with attached files</i>	89.4	91.0		87.5
Menggunakan teknik aritmetik asas di dalam lembaran kerja <i>Using basic arithmetic formulas in a spreadsheet</i>	67.1	70.5		62.8
Menghubungkan dan memasang peranti baru <i>Connecting and installing new devices</i>	79.2	77.6		81.2
Mencari, memuat turun, memasang dan mengkonfigurasi perisian <i>Searching, downloading, installing and configuring software</i>	72.5	76.6		67.5
Membuat persembahan elektronik dengan menggunakan perisian komputer <i>Creating electronic presentations using computer software</i>	62.9	65.0		60.4
Memindahkan fail di antara komputer dan peranti mudah alih lain <i>Transferring files between a computer and other devices</i>	83.1	83.2		82.9
Menulis program komputer menggunakan bahasa pengaturcaraan yang khusus <i>Writing a computer program using a specialised programming language</i>	23.5	26.0		20.4

Jadual 2.7 : Peratusan individu menggunakan komputer mengikut jenis kemahiran ICT dan kumpulan umur, Malaysia, 2022

Table 2.7 : Percentage of individuals using computer by type of ICT skills and age group, Malaysia, 2022

Jenis Kemahiran ICT Type of ICT Skills	Kumpulan Umur / Age Group										(%)
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60+	
Jumlah / Total	73.0	91.4	91.5	92.1	90.6	88.2	84.6	78.1	69.2	46.6	
Menyalin atau memindahkan fail Copying or moving a file or folder	98.7	98.8	99.0	98.7	98.4	98.2	97.3	97.1	97.0	81.9	
Menggunakan teknik menyalin dan menampal untuk pendua atau memindahkan maklumat di dalam satu dokumen Using copy and paste tools to duplicate or move information within a document	96.9	98.0	98.0	97.8	97.0	97.9	97.8	97.4	88.6	87.2	
Menghantar emel berserta fail Sending an e-mail with attached files	94.7	96.9	95.7	93.9	92.8	93.6	91.9	91.6	77.5	45.4	
Menggunakan teknik aritmetik asas di dalam lembaran kerja Using basic arithmetic formulas in a spreadsheet	68.4	79.3	81.7	78.3	74.2	72.0	50.6	49.6	43.3	31.1	
Menghubungkan dan memasang peranti baru Connecting and installing new devices	87.2	84.8	86.5	86.9	85.7	86.3	84.6	77.3	46.0	32.8	
Mencari, memuat turun, memasang dan mengkonfigurasi perisian Searching, downloading, installing and configuring software	87.5	82.0	80.8	80.9	78.5	79.6	76.5	46.8	42.5	28.3	
Membuat persembahan elektronik dengan menggunakan perisian komputer Creating electronic presentations using computer software	74.0	79.2	72.8	70.5	69.8	54.0	53.8	53.1	39.2	27.0	
Memindahkan fail di antara komputer dan peranti mudah alih lain Transferring files between a computer and other devices	87.2	87.7	88.6	88.3	85.8	88.0	88.5	87.3	71.7	40.4	
Menulis program komputer menggunakan bahasa pengaturcaraan yang khusus Writing a computer program using a specialised programming language	29.0	32.7	22.3	21.0	23.2	22.9	24.2	21.9	16.7	13.6	

Jadual 2.8 : Peratusan individu menggunakan Internet mengikut negeri dan strata, Malaysia, 2022

Table 2.8 : Percentage of individuals using the Internet by state and strata, Malaysia, 2022

Negeri State	Jumlah Total	Bandar Urban	Luar bandar Rural	
MALAYSIA	97.4	98.3	94.5	
Johor	98.3	99.0	96.3	
Kedah	96.5	97.5	94.8	
Kelantan	96.3	97.5	95.3	
Melaka	97.7	97.8	97.3	
Negeri Sembilan	98.0	99.2	95.3	
Pahang	96.5	97.5	95.3	
Pulau Pinang	98.7	98.9	96.6	
Perak	96.1	96.4	95.3	
Perlis	95.5	96.2	94.7	
Selangor	98.5	98.5	96.7	
Terengganu	97.0	97.2	96.7	
Sabah	96.8	98.0	95.4	
Sarawak	93.9	98.4	87.7	
W.P. Kuala Lumpur	99.8	99.8	n.a.	
W.P. Labuan	96.6	98.2	85.7	
W.P. Putrajaya	99.9	99.9	n.a.	

Jadual 2.9 : Peratusan individu menggunakan Internet mengikut negeri dan jantina, Malaysia, 2022

Table 2.9 : Percentage of individuals using the Internet by state and sex, Malaysia, 2022

Negeri State	Jumlah Total	Lelaki Male	Perempuan Female	
MALAYSIA	97.4	98.8	95.9	
Johor	98.3	98.8	97.9	
Kedah	96.5	98.0	95.1	
Kelantan	96.3	97.8	94.8	
Melaka	97.7	98.6	96.8	
Negeri Sembilan	98.0	98.2	97.8	
Pahang	96.5	98.1	94.7	
Pulau Pinang	98.7	99.6	97.9	
Perak	96.1	99.4	92.9	
Perlis	95.5	100.0	91.3	
Selangor	98.5	99.7	97.0	
Terengganu	97.0	99.3	94.5	
Sabah	96.8	98.4	95.1	
Sarawak	93.9	96.9	90.7	
W.P. Kuala Lumpur	99.8	99.8	99.8	
W.P. Labuan	96.6	96.3	96.9	
W.P. Putrajaya	99.9	100.0	99.8	

Jadual 2.10 : Peratusan individu menggunakan Internet mengikut strata dan jantina, Malaysia, 2022

Table 2.10 : Percentage of individuals using the Internet by strata and sex, Malaysia, 2022

Jantina Sex	Jumlah Total	Bandar Urban	Luar bandar Rural	
				(%)
Jumlah / Total	97.4	98.3	94.5	
Lelaki / Male	98.8	99.4	97.0	
Perempuan / Female	95.9	97.1	91.9	

Jadual 2.11 : Peratusan individu menggunakan Internet mengikut negeri, jenis peranti mudah alih yang digunakan dan strata, Malaysia, 2022

Table 2.11 : Percentage of individuals using the Internet by state, type of portable devices used and strata, Malaysia, 2022

Negeri State	Telefon bimbit Mobile phone			Papan elektronik mudah alih Tablet			Komputer mudah alih Portable computer			Lain-lain peranti mudah alih Other portable devices		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	98.8	98.8	98.6	26.2	28.9	17.7	38.4	42.4	25.4	13.1	15.3	6.2
Johor	99.2	99.2	99.4	23.2	23.0	23.8	44.6	45.8	40.0	14.2	14.8	12.4
Kedah	99.6	99.7	99.5	19.8	24.0	11.7	29.5	34.7	19.2	5.3	6.5	2.9
Kelantan	97.5	97.2	97.8	20.8	27.4	15.2	30.8	35.7	26.7	2.3	3.3	1.4
Melaka	98.7	98.6	99.7	21.5	22.7	10.1	30.7	31.7	20.0	5.5	5.9	1.9
Negeri Sembilan	99.7	99.9	99.3	21.2	24.1	14.7	31.0	35.4	20.8	1.8	2.1	1.2
Pahang	98.6	99.4	97.6	22.8	28.7	15.7	32.0	37.4	25.6	2.7	3.9	1.3
Pulau Pinang	99.4	99.4	99.9	31.8	32.2	27.6	43.2	44.0	35.6	5.7	5.9	3.5
Perak	98.9	99.3	97.9	16.9	16.8	17.3	36.5	37.7	33.1	22.8	24.9	16.9
Perlis	91.0	92.6	89.0	33.8	38.2	28.3	26.3	30.9	20.7	18.4	19.9	16.5
Selangor	99.3	99.4	97.9	37.3	37.5	30.2	49.9	50.2	41.9	25.2	25.4	21.3
Terengganu	99.4	99.6	99.0	28.1	26.0	31.9	24.2	25.0	22.8	3.0	3.4	2.3
Sabah	99.3	99.2	99.5	16.5	18.6	14.0	24.8	29.9	18.6	10.5	14.7	5.4
Sarawak	99.1	99.1	99.1	19.1	21.4	15.6	29.4	37.0	17.8	6.2	7.6	4.1
W.P. Kuala Lumpur	94.8	94.8	n.a.	37.7	37.7	n.a.	49.7	49.7	n.a.	15.1	15.1	n.a.
W.P. Labuan	92.2	94.2	76.1	34.7	34.7	34.3	69.5	76.7	12.6	9.7	10.4	3.9
W.P. Putrajaya	97.9	97.9	n.a.	56.4	56.4	n.a.	74.8	74.8	n.a.	21.6	21.6	n.a.

Jadual 2.12 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2022

Table 2.12 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2022

Negeri State	Mendapatkan Maklumat Access to Information			Professional Professional		
	Mendapatkan maklumat barang/ perkhidmatan Finding information about goods/ services	Membaca akhbar/ majalah atas talian Reading newspaper/ magazines online	Memohon pekerjaan Applying for jobs	Menyertai rangkaian profesional Participating in professional networks	Bekerja dari rumah Work from home	
MALAYSIA	92.5	68.5	35.8	11.7	15.9	
Johor	97.6	67.1	34.3	9.3	8.3	
Kedah	93.6	71.0	31.4	4.9	3.7	
Kelantan	90.3	67.3	38.5	2.5	4.7	
Melaka	94.5	71.3	34.3	4.6	4.2	
Negeri Sembilan	91.0	66.7	40.2	9.8	5.5	
Pahang	90.6	69.8	35.8	3.3	5.0	
Pulau Pinang	96.0	74.6	32.5	11.6	20.0	
Perak	95.8	72.4	34.7	2.1	18.6	
Perlis	78.1	56.0	29.3	3.4	5.8	
Selangor	98.2	71.9	32.6	20.2	28.6	
Terengganu	97.6	70.7	35.4	24.3	19.1	
Sabah	78.1	55.7	45.4	10.3	13.2	
Sarawak	79.8	56.2	39.2	11.2	17.8	
W.P. Kuala Lumpur	93.5	80.0	36.3	19.6	22.0	
W.P. Labuan	95.0	82.4	36.3	7.1	14.9	
W.P. Putrajaya	96.6	89.4	29.9	15.9	27.3	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.12 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.12 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2022 (cont'd)

(%)

Negeri State	Komunikasi Communication						
	Menyertai rangkaian sosial Participating in social networks	Menghantar emel Sending e-mail	Membuat panggilan telefon melalui Internet Telephoning over the Internet	Memuat naik kandungan ke laman web Uploading content to a website	Mengurus laman web persendirian Managing personal homepage	Menguruskan blog Managing blog	Mengakses perbincangan atas talian Accessing online discussion
MALAYSIA	99.2	81.7	85.2	17.6	10.3	5.5	39.3
Johor	99.2	80.5	84.3	18.7	3.8	5.7	34.7
Kedah	99.2	85.6	87.6	16.1	0.4	0.4	22.2
Kelantan	99.4	79.1	89.5	26.0	5.8	3.0	36.2
Melaka	99.1	83.0	87.4	18.2	2.1	2.1	47.1
Negeri Sembilan	99.4	77.7	87.3	20.6	7.2	7.4	42.8
Pahang	98.9	81.0	87.6	15.0	1.4	1.6	29.0
Pulau Pinang	99.5	76.6	82.9	14.9	16.8	4.2	27.4
Perak	98.5	72.0	77.9	15.7	17.2	4.8	27.6
Perlis	99.5	78.4	82.3	8.7	0.7	0.5	32.0
Selangor	99.2	88.3	85.1	23.3	14.8	10.9	52.0
Terengganu	99.4	91.3	90.2	8.7	10.6	0.6	19.0
Sabah	99.4	77.9	92.5	10.1	14.3	3.0	38.0
Sarawak	99.5	74.2	73.5	3.7	1.5	1.5	35.7
W.P. Kuala Lumpur	99.5	85.6	87.0	28.1	22.6	10.1	66.4
W.P. Labuan	99.5	83.9	98.0	23.6	29.8	22.3	33.9
W.P. Putrajaya	99.9	97.8	97.9	22.4	21.4	10.6	64.8

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.12 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.12 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2022 (cont'd)

(%)

Negeri State	Lain-lain Perkhidmatan Atas Talian Other Online Services						
	Melaksanakan tugas jana pendapatan Performing tasks to generate income	Menggunakan perkhidmatan berkaitan perjalanan/ penginapan Using services related to travel/ accommodation	Menjual barangan/ perkhidmatan selain e-Dagang Selling goods/ services other than e-Commerce	Membuat pesanan barangan/ perkhidmatan atas talian selain e-Dagang Ordering goods/ services online other than e-Commerce	Menggunakan perbankan Internet Using Internet banking	Menggunakan perisian untuk menyunting teks Using software for editing texts	Memuat turun perisian/ aplikasi Downloading software/ applications
MALAYSIA	15.5	36.6	14.2	50.4	74.8	35.9	89.1
Johor	16.0	37.8	12.6	53.2	75.6	33.7	85.6
Kedah	12.0	19.1	11.2	46.3	73.3	25.4	96.7
Kelantan	12.4	22.9	11.7	38.1	66.6	24.5	85.4
Melaka	15.7	23.6	13.0	50.6	74.2	27.5	84.8
Negeri Sembilan	17.3	18.0	10.0	45.9	72.5	45.8	93.1
Pahang	12.8	29.9	10.8	40.0	73.6	21.4	85.5
Pulau Pinang	9.8	35.3	8.4	52.5	78.1	31.8	86.4
Perak	13.5	32.2	12.9	40.7	67.6	32.6	79.6
Perlis	6.4	25.2	9.3	41.0	53.6	13.0	72.4
Selangor	18.6	53.2	21.9	68.7	89.8	55.7	94.7
Terengganu	21.4	49.3	23.5	70.4	83.2	37.8	89.6
Sabah	11.9	30.2	12.6	40.3	52.9	23.0	97.6
Sarawak	12.2	24.7	11.4	25.1	60.1	24.0	84.4
W.P. Kuala Lumpur	24.4	51.9	9.5	50.1	85.9	42.8	83.3
W.P. Labuan	29.4	33.9	10.8	39.2	86.7	21.3	50.4
W.P. Putrajaya	21.9	33.8	16.5	72.7	90.9	42.6	95.9

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.12 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.12 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2022 (cont'd)

Negeri State	Aktiviti Pembelajaran Learning Activities			Hiburan Entertainment			(%)
	Menjalani kursus formal atas talian Doing a formal online course	Merujuk laman web untuk pembelajaran formal Consulting websites for formal learning purposes	Menjalani kursus tidak formal atas talian Doing an informal online course	Mendengar radio secara atas talian Listening to radio online	Menonton televisyen secara atas talian Watching television online	Muat turun gambar/ filem/ permainan Downloading pictures/ movie/ games	
MALAYSIA	26.4	52.9	26.1	72.8	68.1	93.5	
Johor	22.8	52.8	22.6	79.7	64.5	92.7	
Kedah	19.4	48.7	17.7	79.1	67.8	97.5	
Kelantan	21.5	39.3	22.9	66.7	62.8	90.8	
Melaka	22.5	57.5	22.2	79.0	77.9	94.9	
Negeri Sembilan	22.4	48.4	19.2	78.7	70.1	96.0	
Pahang	21.8	49.5	21.5	64.8	59.0	88.8	
Pulau Pinang	16.1	56.1	15.6	82.5	88.8	93.2	
Perak	23.7	46.4	30.4	60.8	67.8	86.9	
Perlis	21.5	42.8	26.2	71.7	34.9	86.3	
Selangor	37.6	62.9	39.5	77.9	71.6	97.3	
Terengganu	43.9	53.1	38.2	96.4	78.9	97.2	
Sabah	20.1	45.9	17.8	54.0	56.9	95.1	
Sarawak	20.8	48.0	12.5	56.4	68.7	86.4	
W.P. Kuala Lumpur	32.9	57.6	33.8	78.9	65.5	93.2	
W.P. Labuan	18.0	60.4	14.1	85.3	53.8	99.6	
W.P. Putrajaya	31.1	67.6	20.5	96.9	82.3	98.2	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.12 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.12 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2022 (cont'd)

Negeri State	Ruang Penyimpanan Storage Space		e-Kesihatan e-Health		e-Kerajaan e-Government	
	Menggunakan ruang simpanan di internet Using storage space on the internet		Mendapatkan maklumat kesihatan Seeking health information	Membuat temujanji kesihatan Making a medical appointment	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Berinteraksi dengan organisasi kerajaan Interacting with government organisations
MALAYSIA	51.2	62.3	31.7	54.8	38.4	
Johor	51.7	65.7	24.7	67.4	47.2	
Kedah	50.8	67.5	16.9	84.4	45.9	
Kelantan	41.3	50.7	19.4	39.2	29.3	
Melaka	44.9	54.2	18.3	55.9	30.2	
Negeri Sembilan	55.2	52.4	22.4	43.9	28.1	
Pahang	40.9	51.4	17.2	35.2	30.3	
Pulau Pinang	46.7	57.9	21.1	59.1	43.9	
Perak	55.4	62.6	27.5	51.6	42.5	
Perlis	26.3	46.7	9.6	46.6	35.4	
Selangor	57.7	65.7	49.6	53.8	42.4	
Terengganu	49.4	71.1	64.6	63.9	69.4	
Sabah	45.9	76.4	41.7	57.1	24.2	
Sarawak	51.3	45.5	24.4	32.4	20.9	
W.P. Kuala Lumpur	55.7	63.7	23.9	54.5	38.1	
W.P. Labuan	28.2	49.2	22.9	48.7	39.8	
W.P. Putrajaya	77.7	81.2	15.2	61.6	56.1	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.12 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.12 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2022 (cont'd)

Negeri State	Sivik dan Politik Civic and Politics	e-Dagang e-Commerce		Keselamatan, Perlindungan Online dan Kesedaran Safety, Online Protection and Awareness
	Memberi pendapat/ undi Posting opinions/ voting	Membeli barangan/ perkhidmatan melalui e-Dagang Purchasing goods/ services via e-Commerce	Menjual barangan/ perkhidmatan melalui e-Dagang Selling goods/ services via e-Commerce	Mempunyai perisian keselamatan dan perlindungan dalam talian Owning online security software and protection
MALAYSIA	43.3	70.4	8.2	72.9
Johor	43.2	69.7	8.0	83.8
Kedah	29.7	75.2	6.4	71.0
Kelantan	51.4	65.9	4.6	74.2
Melaka	57.9	77.7	3.4	80.0
Negeri Sembilan	30.1	72.4	3.2	66.2
Pahang	35.0	71.6	2.4	47.4
Pulau Pinang	42.7	66.2	5.6	87.5
Perak	26.6	54.6	5.8	72.5
Perlis	27.4	52.6	4.6	47.8
Selangor	61.3	87.9	14.3	78.8
Terengganu	71.9	81.9	4.6	72.6
Sabah	24.8	48.3	7.9	58.2
Sarawak	36.2	48.1	5.8	58.9
W.P. Kuala Lumpur	37.1	79.7	12.3	78.6
W.P. Labuan	43.5	92.8	24.4	97.4
W.P. Putrajaya	49.9	96.7	5.2	93.8

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.13 : Peratusan individu menggunakan Internet mengikut jantina dan jenis aktiviti, Malaysia, 2022

Table 2.13 : Percentage of individuals using the Internet by sex and type of activity, Malaysia, 2022

Jantina Sex	Mendapatkan Maklumat Access to Information				Professional Professional	
	Jumlah Total	Mendapatkan maklumat barangan/ perkhidmatan Finding information about goods/ services	Membaca akhbar/ majalah atas talian Reading newspaper/ magazines online	Memohon pekerjaan Applying for jobs	Menyertai rangkaian profesional Participating in professional networks	Bekerja dari rumah Work from home
Jumlah / Total	92.5	68.5	35.8	11.7	15.9	
Lelaki / Male	93.3	69.0	42.9	13.2	18.8	
Perempuan / Female	91.6	68.0	27.8	10.0	12.7	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.13 : Peratusan individu menggunakan Internet mengikut jantina dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.13 : Percentage of individuals using the Internet by sex and type of activity, Malaysia, 2022 (cont'd)

(%)

Komunikasi Communication							
Jantina Sex	Menyertai rangkaian sosial Participating in social networks	Menghantar emel Sending e-mail	Membuat panggilan telefon melalui Internet Telephoning over the Internet	Memuat naik kandungan ke laman web Uploading content to a website	Mengurus laman web persendirian Managing personal homepage	Menguruskan blog Managing blog	Mengakses perbincangan atas talian Accessing online discussion
Jumlah / Total	99.2	81.7	85.2	17.6	10.3	5.5	39.3
Lelaki / Male	99.5	83.3	85.8	16.2	13.4	7.8	43.5
Perempuan / Female	99.0	79.8	84.5	19.2	6.8	3.0	34.5

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.13 : Peratusan individu menggunakan Internet mengikut jantina dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.13 : Percentage of individuals using the Internet by sex and type of activity, Malaysia, 2022 (cont'd)

(%)

Lain-lain Perkhidmatan Atas Talian Other Online Services							
Jantina Sex	Melaksanakan tugas jana pendapatan Performing tasks to generate income	Menggunakan perkhidmatan berkaitan perjalanan/penginapan Using services related to travel/ accommodation	Menjual barangan/perkhidmatan selain e-Dagang Selling goods/ services other than e-Commerce	Menggunakan perbankan Internet Using Internet banking	Menggunakan perisian untuk menyunting teks Using software for editing texts	Memuat turun perisian/aplikasi Downloading software/applications	Membuat pesanan barangan/perkhidmatan atas talian selain e-Dagang Ordering goods/ services online other than e-Commerce
Jumlah / Total	15.5	36.6	14.2	74.8	35.9	89.1	50.4
Lelaki / Male	17.9	39.5	17.2	76.3	37.3	89.7	50.9
Perempuan / Female	12.8	33.3	10.9	73.2	34.3	88.4	49.9

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.13 : Peratusan individu menggunakan Internet mengikut jantina dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.13 : Percentage of individuals using the Internet by sex and type of activity, Malaysia, 2022 (cont'd)

(%)

Jantina Sex	Aktiviti Pembelajaran Learning Activities			Hiburan Entertainment		
	Menjalani kursus formal atas talian Doing a formal online course	Merujuk laman web untuk pembelajaran formal Consulting websites for formal learning purposes	Menjalani kursus tidak formal atas talian Doing an informal online course	Mendengar radio secara atas talian Listening to radio online	Menonton televisyen secara atas talian Watching television online	Muat turun gambar/ filem/ permainan Downloading images/ movie/ games
Jumlah / Total	26.4	52.9	26.1	72.8	68.1	93.5
Lelaki / Male	29.5	54.3	26.3	75.9	69.5	94.0
Perempuan / Female	23.0	51.3	26.0	69.3	66.5	92.9

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.13 : Peratusan individu menggunakan Internet mengikut jantina dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.13 : Percentage of individuals using the Internet by sex and type of activity, Malaysia, 2022 (cont'd)

Jantina Sex	Ruang Penyimpanan Storage Space		e-Kesihatan e-Health		e-Kerajaan e-Government	
	Menggunakan ruang simpanan di internet Using storage space on the internet	Mendapatkan maklumat kesihatan Seeking health information	Membuat temujanji kesihatan Making a medical appointment	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Merapatkan maklumat dengan organisasi kerajaan Interacting with government organisations	
Jumlah / Total	51.2	62.3	31.7	54.8	38.4	
Lelaki / Male	52.2	63.5	33.8	56.1	40.4	
Perempuan / Female	50.1	61.0	29.5	53.2	36.2	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.13 : Peratusan individu menggunakan Internet mengikut jantina dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.13 : Percentage of individuals using the Internet by sex and type of activity, Malaysia, 2022 (cont'd)

(%)

Jantina Sex	Sivik dan Politik Civic and Politics	e-Dagang e-Commerce		Keselamatan, Perlindungan Online dan Kesedaran Safety, Online Protection and Awareness
	Memberi pendapat/ undi Posting opinions/ voting	Membeli barangan/ perkhidmatan melalui e-Dagang Purchasing goods/ services via e-Commerce	Menjual barangan/ perkhidmatan melalui e-Dagang Selling goods/ services via e-Commerce	
Jumlah / Total	43.3	70.4	8.2	72.9
Lelaki / Male	50.0	70.4	8.2	74.0
Perempuan / Female	35.8	70.3	8.2	71.6

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.14 : Peratusan individu menggunakan Internet mengikut kumpulan umur dan jenis aktiviti, Malaysia, 2022

Table 2.14 : Percentage of individuals using the Internet by age group and type of activity, Malaysia, 2022

Kumpulan Umur Age Group	Mendapatkan Maklumat Access to Information					Professional Professional	Bekerja dari rumah Work from home
	Jumlah Total	Mendapatkan maklumat barangan/ perkhidmatan Finding information about goods/ services	Membaca akhbar/ majalah atas talian Reading newspaper/ magazines online	Memohon pekerjaan Applying for jobs	Menyertai rangkaian profesional Participating in professional networks		
Jumlah / Total	97.4	92.5	68.5	35.8	11.7	15.9	
15 - 19	99.0	91.4	58.7	40.8	13.8	16.8	
20 - 24	99.7	94.2	70.4	62.5	15.6	17.7	
25 - 29	99.6	95.4	70.1	59.7	14.1	17.9	
30 - 34	99.5	95.6	72.0	48.5	14.1	17.6	
35 - 39	99.4	96.9	75.3	38.2	14.1	20.8	
40 - 44	99.5	95.6	75.1	28.7	14.0	20.9	
45 - 49	99.4	94.5	72.3	22.3	10.7	19.0	
50 - 54	98.9	91.8	70.6	16.2	8.4	15.5	
55 - 59	97.8	89.8	69.2	10.9	6.2	10.2	
60+	85.5	79.9	55.3	5.4	2.1	2.4	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.14 : Peratusan individu menggunakan Internet mengikut kumpulan umur dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.14 : Percentage of individuals using the Internet by age group and type of activity, Malaysia, 2022 (cont'd)

(%)

Kumpulan Umur Age Group	Komunikasi Communication						
	Menyertai rangkaian sosial Participating in social networks	Menghantar emel Sending e-mail	Membuat panggilan telefon melalui Internet Telephoning over the Internet	Memuat naik kandungan ke laman web Uploading content to a website	Mengurus laman web persendirian Managing personal homepage	Menguruskan blog Managing blog	Mengakses perbincangan atas talian Accessing online discussion
Jumlah / Total	99.2	81.7	85.2	17.6	10.3	5.5	39.3
15 - 19	99.6	94.1	84.5	18.5	18.8	15.1	52.0
20 - 24	99.8	96.3	91.6	23.1	19.7	16.6	58.1
25 - 29	100.0	95.9	90.9	20.0	12.1	4.4	51.6
30 - 34	99.8	94.4	89.5	17.9	8.4	2.8	42.8
35 - 39	99.8	94.0	89.1	19.1	7.6	2.6	37.2
40 - 44	99.8	90.7	84.1	18.6	7.5	2.0	31.9
45 - 49	99.8	87.7	87.0	18.9	6.7	1.1	27.9
50 - 54	99.5	65.5	84.4	17.3	7.3	1.4	27.8
55 - 59	99.4	60.4	80.8	13.7	4.9	1.0	25.7
60+	95.7	26.5	68.9	7.9	4.8	2.7	22.5

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.14 : Peratusan individu menggunakan Internet mengikut kumpulan umur dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.14 : Percentage of individuals using the Internet by age group and type of activity, Malaysia, 2022 (cont'd)

(%)

Kumpulan Umur Age Group	Lain-lain Perkhidmatan Atas Talian Other Online Services					
	Melaksanakan tugas jana pendapatan Performing tasks to generate income	Menggunakan perkhidmatan berkaitan perjalanan/penginapan Using services related to travel/accommodation	Menjual barangan/perkhidmatan selain e-Dagang Selling goods/services other than e-Commerce	Menggunakan perbankan Internet Using Internet banking	Menggunakan perisian untuk menyunting teks Using software for editing texts	Memuat turun perisian/aplikasi Downloading software/applications
						Membuat pesanan barangan/perkhidmatan atas talian selain e-Dagang Ordering goods/services online other than e-Commerce
Jumlah / Total	15.5	36.6	14.2	74.8	35.9	89.1
15 - 19	29.2	28.0	23.3	55.7	46.1	92.4
20 - 24	25.6	37.0	34.3	86.1	50.6	95.1
25 - 29	20.0	38.1	16.8	88.8	40.1	93.2
30 - 34	14.4	42.5	11.2	89.1	36.3	93.0
35 - 39	12.3	46.4	10.1	87.4	38.1	92.5
40 - 44	11.0	46.6	8.6	86.0	37.4	92.3
45 - 49	10.7	43.2	8.3	78.7	35.5	91.5
50 - 54	10.7	37.1	7.8	74.5	28.1	89.1
55 - 59	7.5	32.5	6.7	68.2	26.0	81.7
60+	6.2	17.1	6.5	34.4	13.6	68.8

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.14 : Peratusan individu menggunakan Internet mengikut kumpulan umur dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.14 : Percentage of individuals using the Internet by age group and type of activity, Malaysia, 2022 (cont'd)

Kumpulan Umur Age Group	Aktiviti Pembelajaran Learning Activities			Hiburan Entertainment		
	Menjalani kursus formal atas talian Doing a formal online course	Merujuk laman web untuk pembelajaran formal Consulting websites for formal learning purposes	Menjalani kursus tidak formal atas talian Doing an informal online course	Mendengar radio secara atas talian Listening to radio online	Menonton televisyen secara atas talian Watching television online	Muat turun gambar/ filem/ permainan Downloading pictures/ movie/ games
Jumlah / Total	26.4	52.9	26.1	72.8	68.1	93.5
15 - 19	52.1	94.2	39.6	66.8	76.6	97.2
20 - 24	48.9	80.2	47.6	72.1	76.5	98.1
25 - 29	27.6	69.1	28.3	80.5	71.0	97.2
30 - 34	22.3	54.5	21.9	82.0	73.9	97.3
35 - 39	22.5	46.6	25.1	79.1	72.5	96.9
40 - 44	23.1	37.0	23.2	78.0	72.8	95.6
45 - 49	20.7	32.9	21.8	79.7	61.9	93.5
50 - 54	17.4	30.1	18.6	65.2	61.3	90.5
55 - 59	13.6	29.0	14.8	61.5	56.8	89.0
60+	4.9	27.4	10.9	57.5	48.5	77.3

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.14 : Peratusan individu menggunakan Internet mengikut kumpulan umur dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.14 : Percentage of individuals using the Internet by age group and type of activity, Malaysia, 2022 (cont'd)

Kumpulan Umur Age Group	Ruang Penyimpanan Storage Space		e-Kesihatan e-Health		e-Kerajaan e-Government	
	Menggunakan ruang simpanan di internet Using storage space on the internet	Mendapatkan maklumat kesihatan Seeking health information	Membuat temujanji kesihatan Making a medical appointment	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Berinteraksi dengan organisasi kerajaan Interacting with government organisations	
Jumlah / Total	51.2	62.3	31.7	54.8	38.4	
15 - 19	50.4	46.0	25.4	46.0	26.5	
20 - 24	69.2	59.2	33.1	61.3	36.5	
25 - 29	63.1	72.8	31.4	58.7	38.7	
30 - 34	60.7	65.5	30.2	56.7	46.8	
35 - 39	58.6	64.9	36.7	58.4	44.7	
40 - 44	51.6	65.8	36.1	59.1	42.5	
45 - 49	46.2	71.9	32.2	57.2	39.6	
50 - 54	38.1	65.2	32.1	53.5	35.5	
55 - 59	35.5	65.5	29.0	56.0	37.2	
60+	24.9	52.8	30.6	42.3	34.7	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 2.14 : Peratusan individu menggunakan Internet mengikut kumpulan umur dan jenis aktiviti, Malaysia, 2022 (samb.)

Table 2.14 : Percentage of individuals using the Internet by age group and type of activity, Malaysia, 2022 (cont'd)

Kumpulan Umur Age Group	Sivik dan Politik Civic and Politics	e-Dagang e-Commerce		Keselamatan, Perlindungan Online dan Kesedaran Safety, Online Protection and Awareness
	Memberi pendapat/ undi Posting opinions/ voting	Membeli barangan/ perkhidmatan melalui e-Dagang Purchasing goods/ services via e-Commerce	Menjual barangan/ perkhidmatan melalui e-Dagang Selling goods/ services via e-Commerce	Mempunyai perisian keselamatan dan perlindungan dalam talian Owning online security software and protection
Jumlah / Total	43.3	70.4	8.2	72.9
15 - 19	36.4	57.2	5.9	68.5
20 - 24	51.7	84.9	8.8	81.5
25 - 29	47.8	84.7	10.8	79.8
30 - 34	44.4	82.2	10.6	77.6
35 - 39	47.9	80.5	8.5	77.2
40 - 44	56.7	78.8	8.6	75.6
45 - 49	52.4	74.7	8.1	74.0
50 - 54	36.1	61.0	7.4	70.2
55 - 59	31.1	52.2	5.6	69.8
60+	24.6	38.3	6.5	53.3

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti
Note: Refer to technical notes page 149 - 151 for detailed activities

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**CAPAIAN DAN PENGGUNAAN ICT MENGIKUT
DAERAH PENTADBIRAN**
ICT ACESS AND USE BY ADMINISTRATIVE DISTRICT

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Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
JOHOR	98.5	92.4	99.5	82.8	99.6	99.9	30.5
Batu Pahat	98.5	92.7	99.3	85.7	100.0	100.0	26.2
Johor Bahru	99.2	94.9	99.7	84.2	100.0	100.0	31.2
Kluang	96.7	88.3	99.3	70.0	98.3	99.7	28.7
Kota Tinggi	98.6	90.2	99.5	83.1	99.5	100.0	20.2
Mersing	96.8	88.0	99.1	70.2	99.6	100.0	35.5
Muar	98.0	91.1	99.3	82.6	99.0	99.7	40.4
Pontian	97.8	90.0	99.1	84.0	99.6	100.0	30.5
Segamat	97.4	89.5	99.1	81.3	99.1	99.6	20.5
Kulai	98.8	90.5	99.6	83.3	99.2	100.0	36.3
Tangkak	97.8	89.0	99.6	89.5	99.1	100.0	34.5
KEDAH	95.8	86.3	99.4	57.7	99.4	99.6	16.0
Baling	93.8	83.3	99.5	51.9	99.5	99.1	9.8
Bandar Baharu	93.8	82.7	99.1	70.3	99.5	100.0	8.7
Kota Setar	99.0	89.0	99.7	72.1	99.4	99.4	19.4
Kuala Muda	95.4	87.3	99.4	55.4	99.4	100.0	13.5
Kubang Pasu	94.1	85.1	99.3	61.5	99.7	99.7	21.2
Kulim	96.0	87.9	99.3	53.2	99.4	100.0	24.5

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
Langkawi	97.5	91.7	99.5	57.1	99.5	100.0	12.4
Padang Terap	93.0	75.8	99.6	52.9	99.6	99.1	15.0
Sik	93.1	81.1	99.5	56.0	99.5	98.9	6.1
Yan	95.6	84.8	99.1	43.2	98.6	100.0	5.1
Pendang	95.2	82.0	99.1	43.8	99.6	98.7	7.9
Pokok Sena	94.4	83.3	99.0	47.6	99.0	99.5	14.8
KELANTAN	93.9	87.5	99.2	57.2	99.0	99.7	16.3
Bachok	92.1	82.8	99.1	54.9	99.1	99.5	12.6
Kota Bharu	95.6	89.8	99.3	52.5	99.7	99.7	18.5
Machang	90.0	87.3	99.0	62.4	98.9	100.0	13.6
Pasir Mas	92.3	87.3	99.2	54.8	98.8	99.6	24.7
Pasir Puteh	93.5	89.1	99.0	54.4	98.1	99.5	26.5
Tanah Merah	93.8	88.0	99.0	59.0	98.1	100.0	6.0
Tumpat	93.0	87.9	99.6	60.3	98.9	99.6	10.5
Gua Musang	95.0	88.1	99.7	69.7	99.1	100.0	14.2
Kuala Krai	95.5	89.7	99.1	67.1	98.7	100.0	16.5
Jeli	94.7	83.0	99.4	57.9	98.2	100.0	4.1
Lojing	92.9	0.0	92.9	64.3	92.9	92.9	0.0

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
(%)							
MELAKA	96.2	91.6	99.6	82.1	99.9	99.6	53.4
Alor Gajah	95.5	92.0	99.4	86.3	100.0	99.4	51.6
Jasin	96.1	92.1	99.0	82.7	99.3	99.5	54.6
Melaka Tengah	96.5	91.3	99.8	80.3	100.0	99.8	53.9
NEGERI SEMBILAN	95.9	85.7	99.3	77.4	99.7	99.5	48.5
Jelebu	88.9	73.4	98.5	76.9	99.5	97.5	36.7
Kuala Pilah	95.4	79.2	99.3	77.7	99.6	99.6	39.0
Port Dickson	98.1	86.3	99.3	81.8	100.0	100.0	55.8
Rembau	91.5	78.1	98.2	70.5	99.6	100.0	29.9
Seremban	97.6	89.1	99.6	77.1	99.8	99.6	52.7
Tampin	93.1	82.7	98.6	81.4	99.3	99.6	45.0
Jempol	89.5	78.3	98.4	74.3	99.7	99.3	35.2
PAHANG	94.9	87.2	99.1	77.1	99.0	99.7	21.8
Bentong	93.0	87.4	98.4	82.4	99.3	100.0	20.5
Cameron Highlands	93.9	89.7	99.7	72.4	97.5	100.0	17.0
Jerantut	97.3	86.0	98.0	75.0	99.2	99.2	28.1
Kuantan	96.5	90.3	99.7	76.2	99.7	100.0	24.1
Lipis	91.3	83.0	99.5	82.1	97.7	99.1	12.5

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
							(%)
Pekan	94.6	86.2	98.7	77.2	96.4	99.1	25.2
Raub	91.1	85.6	98.3	76.3	99.5	99.6	34.2
Temerloh	95.9	86.8	99.0	76.4	99.0	99.3	20.0
Rompin	94.6	83.8	99.8	75.9	98.7	100.0	7.2
Maran	92.2	82.9	97.9	83.1	99.6	99.6	14.0
Bera	94.5	84.1	99.2	74.2	99.1	99.6	24.6
PULAU PINANG	99.2	95.1	99.8	81.3	99.7	99.9	28.6
Seberang Prai Tengah	99.3	92.7	100.0	75.1	98.6	100.0	30.8
Seberang Prai Utara	99.0	91.6	99.3	71.0	100.0	100.0	36.8
Seberang Prai Selatan	98.8	95.4	99.7	81.3	100.0	100.0	13.6
Timur Laut	99.3	97.3	100.0	87.1	100.0	100.0	30.8
Barat Daya	98.9	97.5	100.0	89.1	99.6	99.6	21.8
PERAK	94.4	90.6	99.1	76.0	99.2	97.4	20.1
Batang Padang	92.8	91.8	100.0	66.0	100.0	99.6	35.1
Manjung	92.1	93.8	99.2	72.0	99.3	98.5	22.2
Kinta	97.8	90.6	99.6	78.9	99.3	98.2	15.7
Kerian	92.3	94.1	99.6	70.0	99.0	97.6	7.6
Kuala Kangsar	95.0	85.6	97.9	72.8	100.0	95.0	16.1

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
							(%)
Larut Dan Matang	93.6	88.3	98.0	70.8	98.8	95.7	13.7
Hilir Perak	93.3	85.4	98.9	83.5	99.3	97.0	36.6
Hulu Perak	91.9	92.1	98.1	68.4	99.3	98.1	23.8
Perak Tengah	95.0	90.2	99.6	85.6	98.1	97.7	29.0
Kampar	94.9	96.0	98.0	65.7	99.0	95.4	16.7
Muallim	77.8	89.6	100.0	94.2	100.0	95.3	54.2
Bagan Datuk	91.9	89.4	100.0	87.6	98.7	96.9	36.6
Selama	87.5	98.6	98.6	69.4	97.2	95.8	8.3
PERLIS	94.6	88.7	99.6	78.0	98.8	99.2	34.6
SELANGOR	99.0	95.7	99.7	84.8	99.8	99.5	29.2
Gombak	99.6	94.3	100.0	95.1	100.0	99.6	34.5
Klang	98.9	87.9	100.0	70.0	99.6	99.6	15.7
Kuala Langat	97.5	90.1	99.6	83.6	99.6	99.3	29.5
Kuala Selangor	97.8	92.0	100.0	68.0	99.0	99.0	27.6
Petaling	99.3	98.6	99.3	81.4	100.0	99.7	28.7
Sabak Bernam	97.4	98.4	99.7	69.2	99.3	99.0	27.3
Sepang	99.2	97.7	100.0	96.3	99.6	99.6	34.5
Hulu Langat	98.6	98.0	100.0	95.2	99.6	99.3	35.8
Hulu Selangor	99.3	97.2	98.8	89.4	99.6	98.8	25.1

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
TERENGGANU							
	93.9	89.4	98.0	69.9	99.8	99.8	23.2
Besut	96.1	86.6	97.0	72.1	99.7	100.0	19.8
Dungun	97.7	93.5	99.7	60.5	99.3	100.0	24.2
Kemaman	96.3	89.5	98.6	70.5	100.0	100.0	19.0
Kuala Terengganu	98.6	91.6	98.0	69.6	100.0	100.0	24.7
Marang	94.7	87.5	98.2	70.0	99.6	99.6	30.0
Hulu Terengganu	90.4	83.9	96.7	79.2	99.1	99.5	21.0
Setiu	87.5	86.6	97.8	78.0	99.6	99.6	16.8
Kuala Nerus	78.4	89.9	97.1	69.9	100.0	98.9	28.4
SABAH							
	89.6	83.4	99.2	66.2	97.1	97.4	17.4
Tawau	92.4	94.0	100.0	65.6	97.9	98.7	7.4
Lahad Datu	89.1	84.5	100.0	91.8	99.5	100.0	9.2
Semporna	85.3	77.1	100.0	76.2	98.2	98.2	14.0
Sandakan	93.0	89.3	100.0	36.8	95.5	98.1	16.7
Kinabatangan	63.4	36.6	96.1	36.8	97.1	95.8	6.4
Beluran	64.7	68.9	99.2	34.5	95.8	96.6	4.2
Kota Kinabalu	96.7	91.6	99.2	81.3	97.2	98.8	34.4
Ranau	79.9	93.7	98.6	68.0	100.0	97.9	28.4

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
Kota Belud	86.3	90.0	98.9	70.0	99.5	96.3	14.2
Tuaran	88.0	87.8	100.0	88.1	97.9	96.9	4.3
Penampang	97.3	91.0	98.9	73.2	98.4	97.4	17.3
Papar	94.4	88.9	100.0	83.4	95.3	96.3	29.8
Kudat	83.1	72.4	97.7	45.2	97.2	97.2	23.3
Kota Marudu	79.7	73.9	98.5	55.7	93.9	94.7	17.1
Pitas	96.1	64.9	97.4	48.1	94.8	94.8	6.5
Beaufort	77.3	76.9	97.5	82.1	98.3	96.1	29.6
Kuala Penyu	92.4	91.1	100.0	86.1	96.2	94.9	5.1
Sipitang	89.2	91.5	97.7	69.0	96.1	95.3	16.3
Tenom	81.7	74.0	98.1	41.3	97.1	100.0	7.7
Nabawan	95.2	93.7	96.8	46.0	95.2	100.0	1.6
Keningau	91.1	86.0	98.7	58.9	94.7	99.1	12.8
Tambunan	97.9	66.7	100.0	56.2	96.9	100.0	1.0
Kunak	95.3	70.3	100.0	79.0	98.5	95.5	3.5
Tongod	95.5	65.9	100.0	43.2	90.9	93.2	22.7
Putatan	99.1	99.1	99.1	84.6	99.1	97.4	30.8
Telupid	97.8	91.3	97.8	39.1	95.7	93.5	17.4
Kalabakan	87.5	25.0	100.0	75.0	100.0	75.0	12.5

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
SARAWAK	89.8	87.7	97.2	63.0	97.6	97.0	17.0
Kuching	97.2	88.1	98.3	63.9	98.1	98.9	18.9
Bau	74.4	91.5	98.4	33.3	98.4	97.7	5.4
Lundu	82.6	72.1	90.7	33.7	97.7	95.3	3.5
Samarahan	99.3	90.5	97.4	74.0	97.0	97.6	4.6
Serian	81.1	81.5	95.9	40.3	98.4	97.5	7.2
Simunjan	63.5	68.2	84.7	32.9	97.6	96.5	2.4
Sri Aman	75.4	98.0	98.0	66.6	95.7	95.7	25.9
Lubok Antu	78.4	77.3	92.0	43.2	97.7	96.6	25.0
Betong	78.3	87.5	97.5	63.3	98.3	98.3	0.8
Saratok	79.5	82.8	100.0	51.6	99.2	96.7	2.5
Sarikei	87.8	81.4	93.6	74.8	98.0	96.5	18.6
Maradong	79.6	79.8	92.2	57.6	98.1	92.3	5.7
Daro	76.8	81.1	95.8	45.3	97.9	94.7	6.3
Julau	86.7	82.2	97.8	51.1	95.6	93.3	2.2
Sibu	98.5	98.0	99.0	70.2	97.6	97.1	28.6
Dalat	73.3	93.3	95.0	46.7	96.7	93.3	1.7
Mukah	87.1	90.1	100.0	59.9	95.6	95.7	3.2

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
Kanowit	60.0	84.6	96.9	44.6	96.9	96.9	10.8
Bintulu	99.2	94.0	99.6	82.1	97.8	96.8	29.3
Tatau	76.7	83.3	95.0	55.0	96.7	91.7	1.7
Kapit	86.6	82.9	95.9	59.8	97.6	96.7	5.2
Song	63.4	90.1	95.8	52.1	97.2	100.0	26.8
Belaga	82.8	84.4	100.0	67.2	96.9	96.9	14.1
Miri	97.0	88.5	100.0	92.0	97.5	97.0	34.2
Marudi	78.8	92.4	98.5	65.2	97.0	95.5	3.0
Limbang	92.4	92.4	98.1	63.5	98.0	97.6	11.8
Lawas	85.5	85.5	98.8	53.0	97.6	96.4	6.0
Matu	77.6	81.6	94.7	40.8	97.4	94.7	11.8
Asajaya	75.7	90.5	94.6	51.4	97.3	95.9	1.4
Pakan	78.6	89.3	92.9	53.6	96.4	87.5	1.8
Selangau	70.0	90.0	90.0	48.3	96.7	95.0	8.3
Tebedu	65.5	74.7	83.9	42.5	97.7	93.1	1.1
Pusa	76.6	75.5	94.7	44.7	97.9	96.8	1.1
Kabong	81.3	81.3	95.8	44.8	99.0	95.8	2.1
Tanjung Manis	85.4	83.1	93.3	37.1	97.8	96.6	18.0
Sebauh	79.2	85.4	95.8	20.8	97.9	93.7	22.9

Jadual 3.1 : Peratusan capaian isi rumah terhadap perkhidmatan dan peralatan ICT mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.1 : Percentage of households with access to ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone	Siaran TV berbayar Pay TV channel	Televisyen Television	Radio	Telefon talian tetap Fixed-line telephone
Bukit Mabong	76.9	73.1	76.9	53.8	92.3	100.0	34.6
Subis	72.2	64.3	92.9	38.9	98.4	97.6	5.6
Beluru	81.3	82.8	100.0	43.8	96.9	93.8	14.1
Telang Usan	90.7	76.7	93.0	30.2	95.3	93.0	2.3
WILAYAH PERSEKUTUAN							
Kuala Lumpur	99.8	100.0	100.0	96.0	100.0	99.8	42.9
Labuan	99.7	97.0	99.3	90.5	99.0	99.3	36.2
Putrajaya	100.0	100.0	100.0	96.8	100.0	100.0	54.3

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
JOHOR	98.3	83.7	99.4
Batu Pahat	99.1	80.1	99.1
Johor Bahru	99.0	86.2	99.4
Kluang	98.7	87.1	99.5
Kota Tinggi	98.7	73.3	99.1
Mersing	99.2	72.9	99.5
Muar	97.7	85.6	99.6
Pontian	89.3	77.4	99.5
Segamat	98.5	79.7	99.8
Kulai	99.1	88.1	99.7
Tangkak	97.1	81.5	99.4
KEDAH	96.5	73.0	98.9
Baling	97.1	65.5	98.9
Bandar Baharu	96.3	67.8	98.8
Kota Setar	95.9	78.3	99.5
Kuala Muda	96.8	70.4	98.4
Kubang Pasu	96.2	78.4	99.0
Kulim	97.8	75.4	99.1

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
Langkawi	96.8	67.6	98.9
Padang Terap	95.7	71.9	98.8
Sik	94.9	70.4	98.5
Yan	96.9	67.2	98.7
Pendang	94.9	70.3	98.9
Pokok Sena	95.6	72.3	98.6
KELANTAN	96.3	73.7	99.1
Bachok	95.4	74.5	98.4
Kota Bharu	97.2	78.9	99.6
Machang	95.2	76.3	99.1
Pasir Mas	95.5	69.2	99.0
Pasir Puteh	96.1	71.4	97.8
Tanah Merah	96.9	73.5	99.1
Tumpat	96.0	72.2	99.2
Gua Musang	97.4	63.1	99.7
Kuala Krai	95.8	69.2	99.3
Jeli	95.0	70.9	99.4
Lojing	86.2	48.5	90.4

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
MELAKA	97.7	86.0	99.2
Alor Gajah	97.3	88.3	99.6
Jasin	97.4	77.2	99.1
Melaka Tengah	98.0	87.5	99.1
NEGERI SEMBILAN	98.0	75.8	99.1
Jejebu	93.4	58.0	97.7
Kuala Pilah	92.7	65.7	96.2
Port Dickson	99.3	72.3	99.9
Rembau	96.3	60.2	95.9
Seremban	99.5	85.3	99.9
Tampin	95.9	64.7	97.3
Jempol	96.0	58.2	99.4
PAHANG	96.5	77.6	99.2
Bentong	96.1	77.1	99.0
Cameron Highlands	97.7	70.6	99.5
Jerantut	96.8	70.9	98.7
Kuantan	97.4	85.7	99.2
Lipis	95.3	72.2	98.8

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
Pekan	95.8	76.1	98.2
Raub	94.4	72.0	99.7
Temerloh	96.7	73.7	99.7
Rompin	96.7	79.8	99.4
Maran	95.5	72.7	99.4
Bera	95.2	63.1	99.0
PULAU PINANG	98.7	84.8	99.6
Seberang Prai Tengah	98.7	83.2	99.6
Seberang Prai Utara	97.8	88.4	99.7
Seberang Prai Selatan	98.9	84.4	99.5
Timur Laut	99.4	85.6	99.7
Barat Daya	98.4	81.1	99.4
PERAK	96.1	77.5	98.4
Batang Padang	97.1	75.3	99.1
Manjung	93.0	79.1	98.6
Kinta	97.5	80.0	98.8
Kerian	96.5	77.7	99.3
Kuala Kangsar	95.2	75.3	96.9

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
Larut Dan Matang	93.0	77.6	97.5
Hilir Perak	98.1	76.8	98.0
Hulu Perak	94.6	75.7	99.3
Perak Tengah	96.7	73.8	98.4
Kampar	97.7	80.5	98.3
Muallim	96.9	71.0	98.8
Bagan Datuk	96.5	67.8	97.6
Selama	96.4	65.7	94.8
PERLIS	95.5	74.4	98.4
SELANGOR	98.4	91.2	99.5
Gombak	98.5	91.2	99.8
Klang	98.3	92.5	99.7
Kuala Langat	98.2	89.5	99.4
Kuala Selangor	98.1	88.7	99.6
Petaling	98.8	92.9	99.4
Sabak Bernam	99.0	89.8	99.6
Sepang	98.0	87.0	99.2
Hulu Langat	98.2	90.0	99.5
Hulu Selangor	98.8	86.3	99.6

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
TERENGGANU	97.0	80.2	98.8
Besut	96.2	83.3	99.1
Dungun	97.3	85.1	98.8
Kemaman	98.5	83.8	99.5
Kuala Terengganu	97.0	84.6	98.6
Marang	96.8	70.8	97.8
Hulu Terengganu	96.6	75.7	98.9
Setiu	98.0	74.1	98.9
Kuala Nerus	95.3	72.2	98.2
SABAH	96.8	60.3	99.0
Tawau	97.8	70.4	99.4
Lahad Datu	98.9	58.9	99.4
Semporna	98.0	58.2	99.4
Sandakan	98.5	76.9	99.2
Kinabatangan	97.9	44.3	98.3
Beluran	99.4	26.0	99.1
Kota Kinabalu	99.1	80.0	99.4
Ranau	95.7	60.9	98.7

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
Kota Belud	97.9	60.4	99.1
Tuaran	97.6	41.5	97.7
Penampang	95.9	63.4	98.8
Papar	97.1	60.7	99.2
Kudat	96.4	50.9	98.4
Kota Marudu	92.1	44.0	98.5
Pitas	91.7	44.7	97.7
Beaufort	91.0	60.0	98.1
Kuala Penyu	94.0	55.6	99.3
Sipitang	94.4	54.0	98.7
Tenom	94.0	46.0	98.2
Nabawan	94.3	45.6	98.1
Keningau	95.3	49.4	98.3
Tambunan	93.6	41.4	98.8
Kunak	89.0	54.4	98.7
Tongod	65.7	7.4	99.1
Putatan	96.9	51.9	99.4
Telupid	98.9	31.8	100.0
Kalabakan	100.0	8.8	100.0

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
SARAWAK	93.9	67.7	97.9
Kuching	98.4	76.0	99.3
Bau	97.3	53.5	98.2
Lundu	91.9	67.7	97.7
Samarahan	92.7	73.8	98.8
Serian	82.1	48.1	97.3
Simunjan	82.1	63.3	97.8
Sri Aman	90.6	50.6	95.9
Lubok Antu	78.5	49.2	95.2
Betong	85.1	70.9	96.8
Saratok	83.8	54.4	97.5
Sarikei	92.0	64.0	95.3
Maradong	82.4	58.5	97.0
Daro	84.6	59.0	95.9
Julau	70.4	29.5	95.9
Sibu	97.4	71.1	97.9
Dalat	87.0	28.5	96.9
Mukah	91.2	56.3	96.2

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
Kanowit	81.4	48.6	93.7
Bintulu	97.3	75.5	99.4
Tatau	92.4	51.8	98.4
Kapit	92.8	64.9	96.3
Song	92.9	13.0	92.3
Belaga	95.4	26.8	98.4
Miri	98.6	79.2	99.2
Marudi	66.6	32.9	91.1
Limbang	95.8	62.5	97.7
Lawas	95.4	67.3	97.9
Matu	88.0	47.4	96.6
Asajaya	91.5	68.5	95.2
Pakan	84.6	50.0	93.9
Selangau	86.7	53.9	94.8
Tebedu	91.3	82.7	94.7
Pusa	86.5	57.6	96.4
Kabong	91.6	60.3	94.8
Tanjung Manis	95.3	71.7	96.0
Sebauh	97.7	61.0	97.7

Jadual 3.2 : Peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut negeri dan daerah pentadbiran, Malaysia, 2022 (samb.)

Table 3.2 : Percentage of individuals using ICT services and equipment by state and administrative district, Malaysia, 2022 (cont'd)

Negeri State	Internet	Komputer Computer	Telefon bimbit Mobile phone
Bukit Mabong	54.2	26.6	78.4
Subis	96.5	82.8	98.1
Beluru	92.4	57.9	96.9
Telang Usan	81.9	42.3	95.6
WILAYAH PERSEKUTUAN			
Kuala Lumpur	99.8	94.9	99.8
Labuan	96.6	87.3	99.9
Putrajaya	99.9	97.0	99.9

STATISTIK TERPILIH MALAYSIA
SELECTED STATISTICS OF MALAYSIA

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Jadual 4.1 : Kadar penembusan perkhidmatan dan peralatan ICT, Malaysia, 2018 - 2022

Table 4.1 : ICT services and equipment penetration rate, Malaysia, 2018 - 2022

Perkhidmatan dan Peralatan ICT ICT Services and Equipment		2018	2019	2020	2021	2022
Jalur lebar Broadband		121.1	131.7	-	-	-
Mudah alih Mobile		-	-	118.7	128.2	131.0
Tetap Fixed		-	-	37.2	41.4	47.6
Selular mudah alih Mobile-cellular		130.2	135.4	133.6	144.0	145.3
TV berbayar Pay TV		87.3	86.4	83.4	81.1	80.6

Nota/ Note

1. Jalur lebar tetap merujuk kepada kadar penembusan bagi 100 premis/ Fixed-broadband refers to penetration rate per 100 premises
2. Jalur lebar mudah alih dan selular mudah alih merujuk kepada kadar penembusan bagi 100 penduduk/ Mobile-broadband and mobile-cellular refer to penetration rate per 100 inhabitants
3. TV berbayar merujuk kepada kadar penembusan bagi 100 isi rumah/ Pay TV refers to penetration rate per 100 households

Jadual 4.2 : Bilangan langganan TV berbayar, Malaysia, 2018 - 2022

Table 4.2 : Number of pay TV subscriptions, Malaysia, 2018 -2022

TV berbayar Pay TV channel		2018	2019	2020	2021	2022
Jumlah langganan isi rumah Total household subscriptions		7,062.2	7,103.4	6,880.5	6,699.6	6,509.4

Nota: Televisyen berbayar termasuk IPTV

Note: Pay TV is inclusive of IPTV

Sumber: Komunikasi dan Multimedia, Buku Maklumat Statistik (Suruhanjaya Komunikasi dan Multimedia Malaysia)

Source: Communications and Multimedia, Pocket Book of Statistics (Malaysian Communications and Multimedia Commission)

Jadual 4.3 : Bilangan langganan jalur lebar, Malaysia, 2018 - 2022

Table 4.3 : Number of broadband subscriptions, Malaysia, 2018 - 2022

	2018	2019	2020	2021	2022
Jalur lebar <i>Broadband</i>					
Mudah alih <i>Mobile</i>	36,794.5	40,430.9	38,837.2	42,016.0	43,239.5
Tetap <i>Fixed</i>	2,655.4	2,947.0	3,349.5	3,727.4	4,220.5

Jadual 4.4 : Bilangan langganan selular mudah alih, Malaysia, 2018 - 2022

Table 4.4 : Number of mobile-cellular subscriptions, Malaysia, 2018 - 2022

	2018	2019	2020	2021	2022
Selular mudah alih <i>Mobile-cellular</i>					
Prabayar <i>Prepaid</i>	30,837.1	31,260.8	30,152.9	33,023.0	33,657.9
Pascabayar <i>Postpaid</i>	11,576.3	13,340.6	13,570.7	14,178.6	14,294.2

Sumber: Komunikasi dan Multimedia, Buku Maklumat Statistik (Suruhanjaya Komunikasi dan Multimedia Malaysia)

Source: Communications and Multimedia, Pocket Book of Statistics (Malaysian Communications and Multimedia Commission)

Nota: Bermula 2017, kadar penembusan mudah alih adalah berdasarkan data sekunder

Note: Commencing 2017, the mobile-cellular penetration rate is based on secondary data



TANDA ARAS ICT NEGARA TERPILIH
ICT BENCHMARKS OF SELECTED COUNTRIES



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Jadual 5.1 : Peratusan capaian Internet oleh isi rumah mengikut negara terpilih, 2018 - 2021

Table 5.1 : Percentage of households with Internet access by selected countries, 2018 - 2021

(%)

Tahun / Year	Malaysia	Singapura Singapore	Thailand	Republik Korea Republic of Korea	Jepun Japan	Hong Kong	Indonesia
2021	95.5	99.3	88.7	99.9	88.2	94.4	82.1
2020	91.7	98.4	85.2	99.7	97.3	93.9	78.2
2019	90.1	98.4	74.6	99.7	96.9	94.1	73.7
2018	87.0	97.7	67.7	99.5	95.7	92.3	66.2

Jadual 5.2 : Peratusan capaian komputer oleh isi rumah mengikut negara terpilih, 2018 - 2021

Table 5.2 : Percentage of households with access to computer by selected countries, 2018 - 2021

(%)

Tahun / Year	Malaysia	Singapura Singapore	Thailand	Republik Korea Republic of Korea	Jepun Japan	Hong Kong	Indonesia
2021	88.3	91.8	25.8	73.6	75.5	75.8	18.2
2020	77.6	89.1	19.3	71.6	75.9	75.3	18.8
2019	71.3	88.8	15.9	71.7	74.6	77.6	18.8
2018	71.7	88.7	20.9	72.4	75.1	75.3	20.1

Sumber/ Source : International Telecommunication Union (ITU)

Jadual 5.3 : Peratusan individu menggunakan Internet mengikut negara terpilih, 2018 - 2021

Table 5.3 : Percentage of individuals using the Internet by selected countries, 2018 - 2021

Tahun / Year	Malaysia	Singapura Singapore	Thailand	Republik Korea Republic of Korea	Jepun Japan	Hong Kong	Indonesia
2021	96.8	-	85.3	97.6	82.9	93.1	62.1
2020	89.6	92.0	77.8	96.5	90.2	92.4	53.7
2019	84.2	88.9	66.7	96.2	92.7	91.7	47.7
2018	81.2	88.2	56.8	96.0	91.3	90.5	39.9

Jadual 5.4 : Peratusan individu menggunakan komputer mengikut negara terpilih, 2018 - 2021

Table 5.4 : Percentage of individuals using computer by selected countries, 2018 - 2021

Tahun / Year	Malaysia	Singapura Singapore	Thailand	Republik Korea Republic of Korea	Jepun Japan	Hong Kong	Indonesia
2021	83.5	-	-	79.9	-	78.6	11.7
2020	80.0	-	26.4	82.3	-	79.8	14.1
2019	72.1	73.5	25.3	83.0	75.5	82.7	14.5
2018	70.5	-	28.3	82.0	-	80.3	19.1

Sumber/ Source : International Telecommunication Union (ITU)

Jadual 5.5 : Peratusan individu menggunakan Internet mengikut jantina dan negara terpilih, 2021

Table 5.5 : Percentage of individuals using the Internet by sex and selected countries, 2021

Jantina Sex	Malaysia	Singapura Singapore	Thailand	Republik Korea Republic of Korea	Jepun Japan	Hong Kong	Indonesia
Lelaki / Male	97.2	-	86.3	98.2	86.3	94.4	65.0
Perempuan / Female	96.3	-	84.3	96.9	79.8	91.9	59.1

Jadual 5.6 : Kedudukan indeks berkaitan ICT bagi negara terpilih, 2017 dan 2022

Table 5.6 : Ranking of ICT-related indices for selected countries, 2017 and 2022

Kedudukan Rank	Malaysia	Singapura Singapore	Thailand	Republik Korea Republic of Korea	Jepun Japan	Hong Kong	Indonesia
ICT Development Index (IDI) 2017 ¹	63	18	78	2	10	6	111
E-Government Development Index (EGDI) 2022 ²	53	12	55	3	14	-	77

Sumber/ Source :

¹ Measuring the Information Society Report 2017 Volume 1, International Telecommunication Union (ITU)

² United Nation e-Government Survey 2022, United Nation

Nota/ Note:

ICT Development Index (IDI) is a unique benchmark of the level of ICT development in countries across the world. The IDI combines 11 indicators on ICT access, use and skills, capturing key aspects of ICT development in one measure that allows for comparisons to be made between countries and over time. IDI 2017 covers 176 economies worldwide.

E-Government Development Index (EGDI) is a composite index based on the weighted average of three normalize indices. One-third is derived from a Telecommunication Infrastructure Index (TII) based on data provided by the International Telecommunication Union (ITU), one-third from a Human Capital Index (HCI) based on data provided by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), and one-third from the Online Service Index (OSI), based on data collected from an independent survey questionnaire, conducted by UNDESA. The EGDI is used to measure the readiness and capacity of national institutions to use ICTs to deliver public services. This measure is useful for government official, policy maker, researchers and representatives of civil society and the private sector to gain a deeper understanding of the relative position of a country in utilising e-Government for the delivery of public services.

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SIRI MASA

TIME SERIES



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Jadual 6.1 : Peratusan capaian telefon bimbit oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.1 : Percentage of households with access to mobile phone by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah			Jumlah			Jumlah			Jumlah		
	Total	Bandar Urban	Luar bandar Rural	Total	Bandar Urban	Luar bandar Rural	Total	Bandar Urban	Luar bandar Rural	Total	Bandar Urban	Luar bandar Rural
MALAYSIA	98.2	98.8	96.2	98.6	99.0	96.8	99.6	99.6	99.2	99.3	99.6	98.2
Johor	99.3	99.5	98.5	99.4	99.5	99.1	99.9	99.9	99.6	99.5	99.6	99.2
Kedah	97.1	97.7	95.6	98.6	98.7	98.0	99.7	99.7	99.6	99.4	99.6	99.2
Kelantan	97.2	98.3	96.1	97.3	98.2	96.3	99.8	99.7	99.8	99.2	99.4	99.1
Melaka	97.4	97.5	95.1	98.5	98.5	97.0	98.8	98.8	98.8	99.6	99.6	99.6
Negeri Sembilan	98.4	98.8	96.9	98.4	99.4	95.3	99.6	99.8	99.1	99.3	99.7	98.2
Pahang	97.9	98.5	96.9	98.0	98.7	96.9	98.7	98.8	98.6	99.1	99.3	98.9
Pulau Pinang	97.7	97.7	98.2	98.9	98.9	98.1	99.8	99.8	99.7	99.8	99.9	99.5
Perak	97.0	97.7	94.3	97.4	97.6	96.1	98.5	98.7	97.7	99.1	99.1	99.3
Perlis	98.4	98.6	98.0	97.7	97.6	97.8	99.3	99.3	99.3	99.6	99.5	99.7
Selangor	99.5	99.5	98.5	99.3	99.4	98.7	99.9	99.9	99.4	99.7	99.7	99.1
Terengganu	97.7	98.3	96.6	98.2	98.4	97.6	99.2	99.3	98.9	98.0	98.5	97.3
Sabah	98.1	98.7	97.3	98.6	98.8	98.2	99.8	99.8	99.8	99.2	99.6	98.8
Sarawak	96.3	98.5	92.8	96.6	99.0	92.8	99.4	99.8	98.8	97.2	99.8	93.8
W.P. Kuala Lumpur	99.2	99.2	n.a.	99.5	99.5	n.a.	99.9	99.9	n.a.	100.0	100.0	n.a.
W.P. Labuan	98.4	98.3	99.3	98.6	98.6	99.2	99.0	99.0	99.3	99.3	99.6	96.8
W.P. Putrajaya	99.7	99.7	n.a.	99.5	99.5	n.a.	100.0	100.0	n.a.	100.0	100.0	n.a.

Jadual 6.2 : Peratusan capaian Internet oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.2 : Percentage of households with Internet access by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA^r	89.6	92.1	79.4	91.0	93.4	81.3	94.9	96.8	86.7	96.0	98.1	89.1
Johor	94.1	95.1	89.9	92.9	93.7	89.5	98.0	98.5	95.7	98.5	98.9	97.3
Kedah	82.6	84.3	77.7	90.8	92.1	86.9	95.1	96.3	91.5	95.8	97.2	92.8
Kelantan	83.4	86.9	79.5	89.3	91.2	87.1	92.6	94.3	90.6	93.9	95.2	92.9
Melaka	88.8	89.1	82.7	93.1	93.2	91.6	95.1	95.3	91.6	96.2	96.4	94.2
Negeri Sembilan	90.8	92.5	85.2	93.3	95.8	85.0	94.4	96.3	87.7	95.9	98.2	90.1
Pahang	85.2	89.0	78.9	86.8	88.7	83.6	93.8	94.9	91.7	94.9	95.8	94.0
Pulau Pinang	90.0	90.0	88.4	94.7	94.8	92.3	97.4	97.4	96.4	99.2	99.3	96.9
Perak	83.0	83.9	78.8	81.1	82.5	74.5	89.1	89.4	87.7	94.4	95.9	90.3
Perlis	92.2	93.0	90.4	93.0	94.7	89.2	93.8	95.0	90.9	94.6	97.3	91.4
Selangor	95.3	95.8	87.7	94.6	94.9	88.9	98.4	98.6	96.2	99.0	99.1	96.3
Terengganu	91.2	93.1	87.0	90.5	91.0	89.4	92.7	94.2	89.3	93.9	95.0	92.1
Sabah ^r	86.2	93.7	73.4	87.1	94.0	74.8	89.4	96.0	77.2	89.6	97.1	80.6
Sarawak	83.4	91.5	70.7	85.4	95.8	68.5	89.3	97.4	75.6	89.8	97.9	79.1
W.P. Kuala Lumpur	94.6	94.6	n.a.	98.0	98.0	n.a.	99.8	99.8	n.a.	99.8	99.8	n.a.
W.P. Labuan	98.0	98.3	95.6	98.1	98.1	98.4	99.9	100.0	99.3	99.7	100.0	96.8
W.P. Putrajaya	96.8	96.8	n.a.	99.2	99.2	n.a.	100.0	100.0	n.a.	100.0	100.0	n.a.

Nota/ notes :

^r dikemaskini / revised

Jadual 6.3 : Peratusan capaian komputer oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.3 : Percentage of households with access to computer by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	71.3	76.6	50.1	77.6	82.8	55.5	88.3	91.0	76.3	91.3	94.0	82.4
Johor	71.7	75.9	55.0	81.4	85.9	62.9	91.7	93.3	85.0	92.4	94.0	86.8
Kedah	59.6	66.1	41.7	62.1	65.8	51.6	85.6	87.7	79.3	86.3	89.3	80.1
Kelantan	58.2	68.1	47.1	56.6	68.5	42.7	87.5	89.9	84.5	87.5	90.3	85.2
Melaka	73.3	74.2	54.4	87.2	87.2	87.8	90.9	90.8	91.8	91.6	91.6	92.2
Negeri Sembilan	61.7	66.9	45.2	74.1	80.9	50.7	85.5	88.9	73.0	85.7	90.2	74.7
Pahang	59.7	71.9	39.7	71.2	77.1	60.9	87.2	91.3	80.1	87.2	91.5	82.2
Pulau Pinang	76.9	77.1	71.7	86.7	87.2	72.6	89.6	89.6	90.7	95.1	95.0	97.2
Perak	66.9	69.5	55.9	69.0	71.7	57.1	86.0	86.8	82.5	90.6	90.1	92.1
Perlis	68.2	71.9	60.4	70.6	75.0	60.5	88.0	89.0	85.7	88.7	90.4	86.6
Selangor	86.2	87.8	58.0	91.4	91.8	83.6	94.7	94.7	96.1	95.7	95.9	90.1
Terengganu	71.3	76.7	59.5	74.2	81.1	58.4	87.1	89.6	81.1	89.4	92.4	84.1
Sabah	59.8	65.8	49.7	60.7	67.2	49.4	73.1	77.3	65.4	83.4	91.7	73.2
Sarawak	63.6	72.9	48.9	64.8	74.0	49.7	77.1	87.7	58.9	87.7	93.5	79.9
W.P. Kuala Lumpur	77.0	77.0	n.a.	94.5	94.5	n.a.	99.1	99.1	n.a.	100.0	100.0	n.a.
W.P. Labuan	71.3	71.7	68.4	89.3	90.0	84.0	93.8	94.1	91.1	97.0	97.7	90.3
W.P. Putrajaya	94.2	94.2	n.a.	99.2	99.2	n.a.	100.0	100.0	n.a.	100.0	100.0	n.a.

Jadual 6.4 : Peratusan capaian siaran TV berbayar oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.4 : Percentage of households with access to pay TV channel by state and strata, Malaysia, 2019 - 2022

(%)

Negeri State	2019 ^r			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	74.4	77.9	60.4	78.9	81.9	66.5	83.2	85.8	71.9	76.9	80.8	63.9
Johor	78.6	79.9	73.4	78.6	80.1	72.3	83.5	85.3	75.7	82.8	83.7	79.2
Kedah	56.1	59.3	47.3	69.7	73.9	57.5	71.7	73.9	65.1	57.7	60.5	52.0
Kelantan	55.4	57.2	53.3	63.1	67.4	58.0	67.7	69.2	65.9	57.2	57.1	57.2
Melaka	81.2	81.7	72.3	89.7	90.3	75.8	92.6	92.8	85.3	82.1	82.3	79.9
Negeri Sembilan	81.6	83.4	75.6	82.2	84.6	73.9	86.3	87.0	83.9	77.4	77.9	76.1
Pahang	76.7	78.7	73.5	79.6	80.8	77.5	82.2	83.9	79.0	77.1	78.3	75.7
Pulau Pinang	79.9	80.2	72.5	80.3	80.7	67.9	83.0	83.3	73.8	81.3	82.0	72.4
Perak	68.6	70.9	58.7	74.8	76.9	65.6	84.3	86.0	76.4	76.0	77.9	70.5
Perlis	72.9	75.8	66.7	74.5	76.2	70.6	82.2	84.5	76.6	78.0	81.1	74.1
Selangor	85.4	85.6	81.3	86.4	86.6	81.5	89.4	89.5	88.3	84.8	85.2	76.3
Terengganu	67.6	68.6	65.4	80.7	81.8	78.2	82.5	84.0	78.9	69.9	68.0	73.3
Sabah	62.6	68.9	51.9	70.9	77.5	59.3	73.3	77.7	65.2	66.2	73.0	57.9
Sarawak	59.2	65.9	48.8	68.7	72.9	61.9	76.6	83.6	64.6	63.0	77.2	44.1
W.P. Kuala Lumpur	89.3	89.3	n.a.	91.4	91.4	n.a.	95.9	95.9	n.a.	96.0	96.0	n.a.
W.P. Labuan	88.3	88.3	88.2	92.0	91.4	97.6	97.1	97.0	97.8	90.5	90.6	90.3
W.P. Putrajaya	96.1	96.1	n.a.	96.5	96.5	n.a.	96.6	96.6	n.a.	96.8	96.8	n.a.

Nota/ notes:

^r dikemaskini / revised

Jadual 6.5 : Peratusan capaian televisyen oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.5 : Percentage of households with access to television by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	97.6	98.2	95.4	98.5	99.0	96.3	99.0	99.2	98.0	99.2	99.5	98.4
Johor	98.7	99.0	97.4	99.7	99.7	99.4	99.5	99.6	99.2	99.6	99.7	99.3
Kedah	98.3	99.0	96.3	99.1	99.2	98.7	99.3	99.5	98.8	99.4	99.7	98.9
Kelantan	95.7	96.8	94.5	98.2	98.4	98.0	98.2	99.1	97.1	99.0	99.5	98.5
Melaka	97.8	97.8	97.0	99.0	99.1	98.5	99.6	99.6	99.3	99.9	100.0	99.2
Negeri Sembilan	98.7	98.9	98.3	99.2	99.7	97.3	99.2	99.5	98.4	99.7	99.7	99.8
Pahang	97.8	98.5	96.5	98.1	98.7	97.2	98.1	99.1	96.4	99.0	99.4	98.6
Pulau Pinang	97.0	96.9	97.5	99.0	99.0	98.6	99.6	99.6	99.4	99.7	99.6	100.0
Perak	96.7	96.8	96.1	99.0	99.4	97.3	99.3	99.7	97.4	99.2	99.7	98.0
Perlis	96.9	96.4	97.8	96.5	96.6	96.2	98.9	98.8	99.2	98.8	98.8	98.8
Selangor	98.5	98.6	97.8	98.9	99.0	98.1	99.3	99.2	99.5	99.8	99.8	99.3
Terengganu	98.9	99.8	97.0	98.9	99.5	97.8	99.8	99.8	99.7	99.8	99.9	99.4
Sabah	95.2	96.9	92.2	95.4	97.5	91.8	96.3	96.3	96.2	97.1	96.8	97.5
Sarawak	95.3	96.4	93.6	96.2	97.8	93.6	98.4	98.3	98.6	97.6	98.3	96.7
W.P. Kuala Lumpur	99.6	99.6	n.a.	99.9	99.9	n.a.	99.9	99.9	n.a.	100.0	100.0	n.a.
W.P. Labuan	97.9	97.8	98.5	98.2	98.1	99.2	99.0	99.0	99.3	99.0	98.9	100.0
W.P. Putrajaya	98.7	98.7	n.a.	99.5	99.5	n.a.	99.8	99.8	n.a.	100.0	100.0	n.a.

(%)

Jadual 6.6 : Peratusan capaian radio oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.6 : Percentage of households with access to radio by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	97.2	98.0	93.6	98.5	98.9	97.0	98.9	99.2	97.6	99.1	99.4	98.0
Johor	99.0	99.2	98.3	99.0	99.2	98.5	99.6	99.6	99.3	99.9	100.0	99.8
Kedah	96.1	96.8	94.2	97.9	98.4	96.4	99.3	99.6	98.4	99.6	99.9	99.1
Kelantan	95.5	95.7	95.3	98.0	98.7	97.1	98.7	99.2	98.1	99.7	99.8	99.6
Melaka	93.8	94.0	90.1	98.5	98.5	96.9	98.5	98.5	98.1	99.6	99.7	98.8
Negeri Sembilan	98.8	99.0	98.1	98.4	99.1	95.8	98.6	99.1	96.5	99.5	99.6	99.5
Pahang	97.1	98.6	94.6	97.8	98.7	96.2	97.6	98.2	96.5	99.7	99.8	99.5
Pulau Pinang	97.7	97.7	98.1	99.4	99.4	98.6	99.8	99.8	99.4	99.9	99.9	100.0
Perak	94.5	95.4	90.9	97.6	97.6	97.4	97.3	97.4	96.6	97.4	97.6	96.8
Perlis	98.0	98.1	97.6	97.7	98.3	96.2	98.2	98.0	98.7	99.2	99.3	99.1
Selangor	99.2	99.3	96.6	99.2	99.3	96.7	99.4	99.6	97.2	99.5	99.6	97.7
Terengganu	98.7	99.1	97.8	97.0	96.6	97.8	99.8	99.7	99.9	99.8	99.8	99.9
Sabah	90.6	94.9	83.2	97.2	98.2	95.5	97.3	98.4	95.4	97.4	98.2	96.3
Sarawak	97.8	99.0	95.9	98.7	99.2	97.9	98.9	99.3	98.2	97.0	98.8	94.7
W.P. Kuala Lumpur	99.2	99.2	n.a.	99.9	99.9	n.a.	99.8	99.8	n.a.	99.8	99.8	n.a.
W.P. Labuan	97.0	97.2	95.6	99.1	99.0	99.2	99.5	99.5	99.3	99.3	99.6	96.8
W.P. Putrajaya	99.7	99.7	n.a.	99.5	99.5	n.a.	99.8	99.8	n.a.	100.0	100.0	n.a.

Jadual 6.7 : Peratusan capaian telefon talian tetap oleh isi rumah mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.7 : Percentage of households with access to fixed-line telephone by state and strata, Malaysia, 2019 - 2022

Negeri State	2019 ^r			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	22.4	25.0	12.0	22.4	25.5	9.2	31.3	34.9	15.7	27.3	30.7	15.8
Johor	26.8	27.6	23.4	18.8	20.1	13.4	31.2	31.3	30.8	30.5	31.9	25.1
Kedah	12.4	14.6	6.2	14.0	16.4	7.1	17.3	20.6	7.6	16.0	18.6	10.7
Kelantan	10.4	14.5	5.9	7.7	10.7	4.2	19.0	24.8	12.1	16.3	20.4	12.9
Melaka	32.3	32.5	27.7	36.3	36.9	23.7	57.5	58.8	25.9	53.4	56.1	25.7
Negeri Sembilan	33.1	35.5	25.6	30.7	33.5	21.2	53.1	61.6	22.0	48.5	57.3	27.1
Pahang	17.3	18.5	15.2	15.1	18.2	9.8	21.0	23.1	17.3	21.8	25.8	17.1
Pulau Pinang	26.4	26.8	15.0	31.9	32.0	29.6	37.0	36.9	38.9	28.6	28.1	35.7
Perak	19.5	19.9	17.9	20.9	21.8	16.5	25.7	28.0	14.4	20.1	20.7	18.2
Perlis	18.2	20.8	12.8	24.4	27.7	16.8	33.3	41.4	13.3	34.6	43.9	23.2
Selangor	26.5	27.0	17.1	28.1	28.4	23.5	32.9	33.4	24.5	29.2	29.2	30.0
Terengganu	18.3	21.7	10.9	13.0	15.7	6.9	29.6	31.9	24.3	23.2	22.0	25.4
Sabah	12.0	16.0	5.3	9.2	12.7	3.0	24.9	32.8	10.4	17.4	26.2	6.6
Sarawak	19.9	28.6	6.3	15.0	22.6	2.5	18.8	25.9	6.7	17.0	24.5	7.0
W.P. Kuala Lumpur	29.7	29.7	n.a.	42.7	42.7	n.a.	54.4	54.4	n.a.	42.9	42.9	n.a.
W.P. Labuan	31.4	32.2	25.0	36.6	37.3	30.4	38.1	38.6	34.1	36.2	37.4	25.8
W.P. Putrajaya	26.8	26.8	n.a.	36.1	36.1	n.a.	59.9	59.9	n.a.	54.3	54.3	n.a.

Nota/ notes:

^r dikemaskini / revised

Jadual 6.8 : Peratusan individu menggunakan telefon bimbit mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.8 : Percentage of individuals using mobile phone by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	97.9	98.3	96.8	98.2	98.5	97.2	98.7	99.0	97.7	99.1	99.4	98.3
Johor	98.2	98.5	97.4	98.7	99.0	97.6	99.0	99.3	98.0	99.4	99.5	99.1
Kedah	96.9	97.5	95.2	97.4	97.8	96.2	97.7	98.2	96.3	98.9	99.1	98.4
Kelantan	97.0	97.4	96.5	97.8	97.5	98.2	98.6	98.7	98.4	99.1	99.7	98.6
Melaka	96.7	96.9	94.4	97.2	97.3	95.6	97.7	97.8	97.5	99.2	99.2	99.6
Negeri Sembilan	96.7	97.1	95.5	97.4	97.8	96.3	98.3	98.8	97.0	99.1	99.8	97.7
Pahang	98.5	98.8	98.0	98.5	98.8	98.1	98.9	99.2	98.5	99.2	99.2	99.1
Pulau Pinang	96.9	96.9	96.8	97.4	97.5	96.7	99.0	99.1	96.9	99.6	99.7	99.0
Perak	97.0	97.3	96.1	97.1	97.3	96.2	98.1	98.2	97.4	98.4	98.7	97.7
Perlis	96.7	97.0	96.0	97.3	97.7	96.5	98.0	98.2	97.6	98.4	98.8	98.0
Selangor	98.9	99.0	95.7	99.0	99.1	97.1	99.5	99.5	98.8	99.6	99.6	98.9
Terengganu	97.0	97.4	96.2	97.4	97.7	96.6	98.3	98.3	98.5	98.8	98.8	98.6
Sabah	98.9	99.2	98.6	99.0	99.1	98.7	99.0	99.1	98.8	99.0	99.3	98.7
Sarawak	96.8	97.7	95.3	97.1	98.3	95.3	97.5	98.7	95.7	97.9	99.0	96.4
W.P. Kuala Lumpur	99.6	99.6	n.a.	99.6	99.6	n.a.	99.7	99.7	n.a.	99.8	99.8	n.a.
W.P. Labuan	99.7	99.8	99.4	99.7	99.7	99.6	99.8	99.8	99.6	99.9	99.9	99.6
W.P. Putrajaya	99.7	99.7	n.a.	99.8	99.8	n.a.	99.8	99.8	n.a.	99.9	99.9	n.a.

Jadual 6.9 : Peratusan individu memiliki telefon bimbit mengikut jantina, Malaysia, 2019 - 2022

Table 6.9 : Percentage of individuals owning mobile phone by sex, Malaysia, 2019 - 2022

Jantina Sex	2019	2020	2021	2022
Jumlah / Total	95.7	96.4	97.4	98.2
Lelaki / Male	96.8	97.7	98.2	99.1
Perempuan / Female	94.8	95.0	96.6	97.2

Goal 5: Achieve gender equality and empower all women and girls

Target 5.b: Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

Indicator 5.b.1: Proportion of individuals who own a mobile telephone, by sex

Jadual 6.10 : Peratusan individu memiliki telefon bimbit mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.10 : Percentage of individuals owning mobile phone by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	95.7	96.5	92.7	96.4	97.2	93.4	97.4	98.1	95.1	98.2	98.9	96.1
Johor	97.3	97.6	96.2	98.8	99.2	97.3	98.9	99.3	97.4	99.6	99.9	98.7
Kedah	93.5	94.5	90.8	93.7	94.8	91.0	96.6	97.1	95.4	98.0	98.6	97.0
Kelantan	92.6	94.1	90.9	93.2	95.2	90.9	94.7	95.8	93.5	96.6	98.5	94.9
Melaka	94.4	94.7	90.2	95.7	95.9	93.7	96.7	96.7	96.9	98.9	99.0	98.0
Negeri Sembilan	93.9	94.6	91.6	95.3	96.4	91.8	96.4	96.8	95.1	97.8	99.1	95.1
Pahang	95.5	97.2	92.7	96.0	97.8	93.1	97.0	99.1	93.7	98.7	99.2	98.2
Pulau Pinang	95.7	95.8	95.0	96.8	96.8	95.3	98.4	98.6	95.8	98.7	98.8	97.9
Perak	93.7	94.3	91.3	94.5	95.3	91.4	95.0	95.4	93.5	97.1	97.8	95.1
Perlis	94.4	95.4	92.4	95.7	96.0	95.1	96.0	96.2	95.5	96.4	97.1	95.6
Selangor	97.8	98.0	93.8	98.1	98.2	96.0	99.3	99.3	98.0	99.3	99.4	98.1
Terengganu	95.7	95.4	96.2	95.9	95.8	96.3	97.2	97.4	96.8	97.5	97.6	97.4
Sabah	95.2	95.9	94.3	95.7	95.9	95.4	96.8	96.9	96.7	95.9	96.2	95.5
Sarawak	93.5	95.9	89.7	94.5	97.4	89.9	95.5	97.7	92.0	96.4	98.9	92.9
W.P. Kuala Lumpur	98.6	98.6	n.a.	99.2	99.2	n.a.	99.7	99.7	n.a.	99.8	99.8	n.a.
W.P. Labuan	99.0	99.5	97.0	99.5	99.6	99.0	99.7	99.8	99.0	99.1	99.2	98.3
W.P. Putrajaya	98.8	98.8	n.a.	99.6	99.6	n.a.	99.6	99.6	n.a.	99.7	99.7	n.a.

Jadual 6.11 : Peratusan individu menggunakan komputer mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.11 : Percentage of individuals using computer by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural	Jumlah Total	Bandar Urban	Luar bandar Rural
MALAYSIA	72.1	77.3	54.0	80.0	85.3	61.0	83.5	88.2	66.7	80.2	85.7	63.1
Johor	75.5	78.9	63.4	86.9	90.7	73.5	89.2	92.1	79.9	83.7	86.9	72.9
Kedah	61.7	65.5	51.6	68.5	70.6	63.1	76.6	80.1	66.4	73.0	76.9	65.5
Kelantan	62.4	69.3	54.3	73.2	82.0	62.6	78.8	84.4	72.1	73.7	81.3	67.4
Melaka	80.7	81.2	71.9	86.1	86.5	81.1	88.1	88.7	81.6	86.0	86.9	77.6
Negeri Sembilan	69.6	75.2	53.5	74.7	80.1	58.3	80.1	84.9	66.2	75.8	81.8	62.7
Pahang	69.7	77.2	57.9	79.2	85.7	68.9	81.6	87.7	72.6	77.6	83.7	70.5
Pulau Pinang	75.9	76.3	66.3	87.1	87.5	77.6	87.5	87.8	79.9	84.8	85.5	78.1
Perak	67.5	70.7	55.5	76.8	79.5	65.4	80.4	82.0	73.6	77.5	80.5	69.1
Perlis	70.8	74.2	64.2	76.8	80.6	68.5	79.2	80.8	75.3	74.4	75.0	73.8
Selangor	85.1	85.6	74.7	93.2	93.7	84.8	95.0	95.4	87.4	91.2	91.6	80.5
Terengganu	74.5	79.3	63.2	82.4	88.5	69.2	85.3	88.7	77.1	80.2	84.1	73.1
Sabah	55.5	63.2	44.1	59.3	67.7	44.1	65.2	75.4	48.0	60.3	73.4	44.6
Sarawak	64.1	74.8	47.5	69.8	81.8	50.7	74.2	84.2	58.4	67.7	78.5	52.9
W.P. Kuala Lumpur	86.7	86.7	n.a.	94.3	94.3	n.a.	96.0	96.0	n.a.	94.9	94.9	n.a.
W.P. Labuan	78.6	80.7	71.1	88.4	90.0	80.4	91.6	93.3	82.9	87.3	88.7	77.3
W.P. Putrajaya	99.2	99.2	n.a.	99.9	99.9	n.a.	99.9	99.9	n.a.	97.0	97.0	n.a.

Jadual 6.12 : Peratusan individu menggunakan komputer mengikut negeri dan jenis kemahiran ICT, Malaysia, 2020 - 2022

Table 6.12 : Percentage of individuals using computer by state and type of ICT skills, Malaysia, 2020- 2022

Negeri State	2020				2021				2022				2023			
	2020				2021				2022				2023			
	Menyalin atau memindahkan fail atau folder Copying or moving a file or folder				Menyalin dan menampal untuk pendua atau memindahkan maklumat di dalam satu dokumen Using copy and paste tools to duplicate or move information within a document				Menghantar e-mel berserta fail Sending an e-mail with attached files				Menggunakan teknik aritmetik asas di dalam lembaran kerja Using basic arithmetic formulas in spreadsheets			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
MALAYSIA	86.4	94.6	97.0	97.0	87.7	93.2	96.3	96.3	69.0	78.7	89.4	89.4	39.3	52.6	67.1	67.1
Johor	86.3	96.4	96.4	96.4	86.4	93.4	94.3	94.3	65.7	78.6	92.3	92.3	30.3	48.1	71.8	71.8
Kedah	82.5	96.3	98.6	98.6	80.4	91.5	99.6	99.6	67.4	75.7	94.2	94.2	31.2	59.5	72.4	72.4
Kelantan	76.5	96.5	98.3	98.3	81.8	91.5	95.8	95.8	62.7	70.2	90.7	90.7	28.9	40.1	52.0	52.0
Melaka	88.7	99.4	99.5	99.5	81.1	93.7	94.9	94.9	65.1	76.8	85.2	85.2	41.3	53.9	71.1	71.1
Negeri Sembilan	85.4	96.5	98.1	98.1	86.1	93.5	94.5	94.5	63.6	73.6	96.2	96.2	39.1	62.7	75.4	75.4
Pahang	86.1	94.6	96.8	96.8	88.8	94.5	96.6	96.6	63.6	74.3	91.0	91.0	35.3	51.0	69.2	69.2
Pulau Pinang	78.6	90.1	94.6	94.6	80.6	87.6	97.0	97.0	65.1	73.5	79.2	79.2	40.8	55.0	63.1	63.1
Perak	85.4	89.5	94.1	94.1	90.9	93.4	96.0	96.0	68.9	80.2	85.6	85.6	35.6	42.7	53.6	53.6
Perlis	86.2	90.7	97.7	97.7	89.3	92.0	97.0	97.0	61.0	62.1	96.6	96.6	25.3	45.6	47.5	47.5
Selangor	89.9	92.6	96.5	96.5	91.8	93.0	96.2	96.2	76.5	85.2	90.8	90.8	51.0	53.2	67.4	67.4
Terengganu	87.2	96.8	98.4	98.4	83.3	92.1	94.8	94.8	61.9	69.1	78.0	78.0	28.1	52.0	59.1	59.1
Sabah	86.0	94.8	97.0	97.0	88.5	94.7	97.3	97.3	63.3	77.0	88.7	88.7	36.0	58.8	72.7	72.7
Sarawak	88.6	95.6	97.4	97.4	87.8	91.7	95.4	95.4	65.8	74.8	81.2	81.2	33.7	50.6	61.9	61.9
W.P. Kuala Lumpur	89.5	99.4	99.6	99.6	91.6	99.6	99.7	99.7	82.0	89.2	96.6	96.6	50.9	60.2	76.0	76.0
W.P. Labuan	85.2	97.7	99.0	99.0	94.6	98.2	99.5	99.5	75.9	83.6	92.1	92.1	46.4	56.8	89.2	89.2
W.P. Putrajaya	96.3	98.5	98.8	98.8	97.1	98.6	98.9	98.9	84.9	93.2	95.2	95.2	67.4	75.4	77.4	77.4

Goal 4 : Ensure inclusive and equitable education and promote lifelong learning opportunities for all

Target 4.4 : By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Indicator 4.4.1 : Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

Jadual 6.12 : Peratusan individu menggunakan komputer mengikut negeri dan jenis kemahiran ICT, Malaysia, 2020 - 2022 (samb.)

Table 6.12 : Percentage of individuals using computer by state and type of ICT skills, Malaysia, 2020- 2022 (cont'd)

	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	(%)
Negeri State	Menghubungkan dan memasang peranti baru Connecting and installing new device			Mencari, memuat turun, mengkonfigurasi perisian Searching, downloading, installing and configuring software			Membuat persembahan elektronik dengan menggunakan perisian komputer Creating electronic presentations using computer software			Memindahkan fail di antara komputer dan peranti mudah alih lain Transferring files between a computer and other devices			Menulis program komputer menggunakan bahasa pengaturcaraan yang khusus Writing a computer program using a specialised programming language			
MALAYSIA	72.0	76.0	79.2	57.8	67.0	72.5	38.8	51.8	62.9	68.3	74.4	83.1	13.9	19.2	23.5	
Johor	70.0	71.9	73.9	48.7	56.9	70.6	29.7	42.0	64.2	59.2	72.6	80.9	9.9	13.6	22.7	
Kedah	69.1	78.8	82.4	51.1	61.9	78.3	35.9	59.4	60.3	69.9	75.5	86.9	8.0	15.4	21.7	
Kelantan	63.5	67.5	74.4	46.2	62.7	70.0	28.3	50.3	63.2	53.6	59.3	86.8	11.3	16.3	24.3	
Melaka	71.6	75.1	75.4	45.0	59.0	75.7	32.8	49.1	60.5	65.0	67.5	84.7	14.7	25.3	26.0	
Negeri Sembilan	72.9	78.2	75.4	57.9	67.5	75.1	43.1	56.0	74.7	63.8	73.7	84.7	13.3	19.2	26.8	
Pahang	68.1	71.0	73.7	49.0	67.4	70.3	33.1	45.9	59.2	68.8	70.9	87.1	10.5	19.6	21.6	
Pulau Pinang	72.9	78.5	79.6	59.1	67.8	69.4	40.3	50.3	53.5	61.7	65.5	72.4	16.4	21.2	25.1	
Perak	67.8	74.3	79.3	56.4	63.2	63.9	37.2	42.7	47.8	69.1	67.2	71.7	10.6	18.4	23.2	
Perlis	75.0	76.2	74.0	54.4	63.2	65.3	38.6	48.3	49.9	61.7	64.7	87.7	12.5	20.0	17.8	
Selangor	75.6	78.3	83.7	69.0	72.3	73.6	45.4	54.2	59.4	73.8	84.6	87.5	15.4	18.8	20.7	
Terengganu	66.7	71.1	71.9	51.3	60.0	63.5	32.9	52.7	69.0	63.5	63.8	71.1	15.2	20.5	23.9	
Sabah	73.7	77.4	79.2	54.3	71.9	73.8	36.6	55.7	74.4	74.1	77.0	84.4	13.9	20.9	24.1	
Sarawak	70.2	75.6	77.0	57.3	70.4	71.4	33.1	51.4	65.8	70.2	70.1	74.9	10.5	12.7	18.1	
W.P. Kuala Lumpur	78.7	81.8	85.2	70.5	75.3	83.5	58.8	65.9	76.6	75.0	83.8	92.0	27.4	32.8	36.6	
W.P. Labuan	76.3	84.4	88.5	60.4	72.7	76.4	45.4	51.7	92.4	75.9	75.6	97.6	21.1	55.5	21.9	
W.P. Putrajaya	87.9	88.6	89.6	77.8	85.7	87.0	69.7	86.3	90.3	95.6	97.1	98.8	46.2	72.9	35.8	

Goal 4 : Ensure inclusive and equitable education and promote lifelong learning opportunities for all

Target 4.4 : By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Indicator 4.4.1 : Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

Jadual 6.13 : Peratusan belia menggunakan komputer mengikut negeri dan jenis kemahiran ICT, Malaysia, 2020 - 2022

Table 6.13 : Percentage of youth using computer by state and type of ICT skills, Malaysia, 2020 - 2022

Negeri State	2020				2021				2022				(%)			
	Menyalin atau memindahkan fail atau folder Copying or moving a file or folder				Menyalin dan menampal untuk pendua atau memindahkan maklumat di dalam satu dokumen Using copy and paste tools to duplicate or move information within a document				Menghantar e-mel berserta fail Sending an e-mail with attached files				Menggunakan teknik aritmetik asas di dalam lembaran kerja Using basic arithmetic formulas in spreadsheets			
MALAYSIA	83.0	95.1	98.8	94.7	95.6	97.5	71.2	85.9	95.9	40.2	45.0	74.6				
Johor	89.4	94.2	97.9	97.4	94.2	93.8	69.0	86.4	98.8	41.8	42.6	71.6				
Kedah	71.2	92.2	98.2	98.1	92.2	99.4	75.0	81.8	98.2	27.9	44.6	87.3				
Kelantan	56.4	93.1	99.4	93.7	93.1	96.9	67.7	89.0	99.2	26.8	36.9	75.8				
Melaka	83.5	97.9	99.9	96.4	97.9	97.4	75.8	82.7	97.1	34.6	50.7	88.8				
Negeri Sembilan	92.6	91.4	99.7	96.5	91.4	96.0	80.0	77.5	98.9	49.1	53.3	80.1				
Pahang	87.6	92.0	96.8	92.8	96.9	96.0	62.2	82.8	97.8	40.4	41.0	85.3				
Pulau Pinang	84.0	94.5	99.8	97.9	94.5	99.2	79.2	90.3	93.6	54.3	54.9	74.2				
Perak	80.9	98.1	99.4	95.2	98.1	97.7	72.3	92.7	94.4	47.4	48.5	60.4				
Perlis	88.7	91.9	97.3	95.5	94.3	96.8	63.9	78.7	94.7	19.7	41.5	42.0				
Selangor	88.7	99.2	99.8	91.1	98.5	99.4	76.2	89.4	95.6	59.3	47.9	77.5				
Terengganu	83.5	94.6	100.0	86.8	94.6	99.2	69.1	84.7	94.5	24.7	49.1	63.8				
Sabah	75.7	92.9	96.3	95.5	95.2	98.4	61.5	79.1	94.7	24.2	42.9	75.6				
Sarawak	91.3	94.1	99.7	96.1	94.1	96.9	66.5	84.6	92.4	30.8	36.7	70.8				
W.P. Kuala Lumpur	93.7	96.6	100.0	96.9	97.9	100.0	85.2	90.3	86.2	48.3	47.2	53.1				
W.P. Labuan	94.5	94.7	100.0	91.9	98.5	97.0	79.2	91.5	78.1	34.4	53.7	97.6				
W.P. Putrajaya	100.0	98.2	97.6	100.0	98.2	92.1	70.3	83.8	70.7	38.0	54.7	69.7				

Goal 4 : Ensure inclusive and equitable education and promote lifelong learning opportunities for all

Target 4.4 : By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Indicator 4.4.1 : Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

Jadual 6.13 : Peratusan belia menggunakan komputer mengikut negeri dan jenis kemahiran ICT, Malaysia, 2020 - 2022 (samb.)

Table 6.13 : Percentage of youth using computer by state and type of ICT skills, Malaysia, 2020 - 2022 (cont'd)

	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Negeri State	Menghubungkan dan memasang peranti baru Connecting and installing new device	Mencari, memuat turun, memasang dan mengkonfigurasi perisian Searching, downloading, installing and configuring software	Membuat persembahan elektronik dengan menggunakan perisian komputer Creating electronics using computer software	Memindahkan fail di antara komputer dan peranti mudah alih lain Transferring files between a computer and other devices	Menulis program komputer menggunakan bahasa pengaturcaraan yang khusus Writing a computer program using a specialised programming language										
MMALAYSIA	75.4	86.0	85.8	54.2	73.7	84.4	45.1	50.6	76.9	83.4	77.4	87.5	17.6	20.9	31.1
Johor	73.9	84.3	78.6	47.2	63.6	83.0	41.7	44.1	69.3	91.3	78.3	81.4	18.5	14.8	28.8
Kedah	68.5	89.5	95.4	52.6	63.4	88.1	44.2	63.1	82.3	90.1	80.3	91.5	10.8	13.2	31.7
Kelantan	57.9	75.7	83.8	40.8	65.0	80.9	33.1	49.8	82.5	47.1	68.4	82.3	13.0	18.6	38.7
Melaka	83.9	88.3	76.5	20.0	65.7	89.6	51.5	50.1	77.1	67.5	69.7	82.8	4.6	28.3	46.8
Negeri Sembilan	92.5	80.5	81.1	61.3	72.1	86.8	54.5	55.9	80.2	73.1	82.8	75.2	13.6	22.7	49.5
Pahang	71.3	70.7	81.8	50.8	74.8	84.5	39.3	47.5	82.4	82.7	79.3	84.9	13.5	19.2	32.7
Pulau Pinang	83.2	91.6	86.7	65.1	77.2	89.6	53.5	56.7	72.4	70.2	70.7	89.3	22.4	27.9	25.4
Perak	81.9	91.2	86.0	57.5	72.5	79.5	48.8	49.9	62.9	88.3	77.6	88.3	17.2	33.6	31.8
Perlis	78.0	86.8	87.9	51.1	78.8	80.2	42.5	41.6	59.6	68.8	67.1	81.8	14.9	24.2	20.8
Selangor	84.8	91.4	92.0	65.5	90.1	88.4	57.5	53.7	75.6	94.2	77.6	95.5	18.5	18.5	28.6
Terengganu	61.5	85.7	91.3	35.8	66.4	80.9	40.3	51.8	92.1	74.5	68.8	92.0	27.7	25.1	27.5
Sabah	75.3	82.0	90.7	46.4	66.1	78.4	32.5	40.6	86.0	85.1	84.2	91.9	11.0	17.5	29.9
Sarawak	60.7	85.3	88.2	65.2	70.5	92.3	32.2	48.1	80.6	87.2	77.7	88.2	19.7	20.7	28.5
W.P. Kuala Lumpur	88.6	95.6	68.9	69.9	96.7	72.1	66.4	62.3	65.6	85.1	75.4	81.5	42.4	26.5	13.6
W.P. Labuan	89.2	84.9	96.3	45.9	83.6	94.2	39.5	64.3	97.1	91.0	81.7	98.5	33.5	57.3	23.2
W.P. Putrajaya	79.5	90.2	94.3	68.6	90.7	75.8	52.8	82.2	94.3	100.0	95.4	98.9	38.4	71.1	22.4

Goal 4 : Ensure inclusive and equitable education and promote lifelong learning opportunities for all

Target 4.4 : By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Indicator 4.4.1 : Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

Jadual 6.14 : Peratusan individu menggunakan Internet mengikut negeri dan strata, Malaysia, 2019 - 2022

Table 6.14 : Percentage of individuals using the Internet by state and strata, Malaysia, 2019 - 2022

Negeri State	2019			2020			2021			2022		
	Jumlah			Jumlah			Jumlah			Jumlah		
	Total	Bandar Urban	Luar bandar Rural	Total	Bandar Urban	Luar bandar Rural	Total	Bandar Urban	Luar bandar Rural	Total	Bandar Urban	Luar bandar Rural
MALAYSIA	84.2	87.5	72.7	89.6	92.4	79.4	96.8	97.7	93.5	97.4	98.3	94.5
Johor	89.6	91.7	82.2	93.9	95.3	89.2	98.1	98.6	96.4	98.3	99.0	96.3
Kedah	75.6	78.5	68.0	82.9	84.8	77.8	95.5	96.6	92.4	96.5	97.5	94.8
Kelantan	73.9	77.9	69.1	81.6	85.3	77.2	95.9	96.9	94.7	96.3	97.5	95.3
Melaka	85.6	85.7	84.5	92.2	92.3	90.8	96.4	96.5	95.6	97.7	97.8	97.3
Negeri Sembilan	81.3	83.3	75.5	88.9	92.7	77.4	95.5	97.1	90.8	98.0	99.2	95.3
Pahang	81.8	87.1	73.5	88.8	93.3	81.6	94.9	96.8	92.2	96.5	97.5	95.3
Pulau Pinang	86.7	86.9	82.9	90.2	90.2	88.2	97.8	97.9	95.6	98.7	98.9	96.6
Perak	80.6	82.4	74.1	87.5	88.6	82.9	95.7	95.9	94.6	96.1	96.4	95.3
Perlis	83.8	84.9	81.6	90.2	93.9	82.3	95.0	95.4	94.1	95.5	96.2	94.7
Selangor	91.7	92.4	78.4	96.1	96.8	85.8	98.0	98.1	96.1	98.5	98.5	96.7
Terengganu	81.0	83.6	74.7	84.2	85.8	80.5	95.5	96.0	94.4	97.0	97.2	96.7
Sabah	80.0	84.5	73.3	85.8	88.6	80.7	97.3	98.0	96.2	96.8	98.0	95.4
Sarawak	76.4	85.0	63.0	81.3	91.0	65.8	93.6	98.0	86.7	93.9	98.4	87.7
W.P. Kuala Lumpur	93.4	93.4	n.a.	97.3	97.3	n.a.	99.6	99.6	n.a.	99.8	99.8	n.a.
W.P. Labuan	94.9	98.2	82.5	95.9	98.3	84.2	99.8	99.8	99.5	96.6	98.2	85.7
W.P. Putrajaya	98.4	98.4	n.a.	99.7	99.7	n.a.	99.8	99.8	n.a.	99.9	99.9	n.a.

Goal 17 : Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Target 17.8 : Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Indicator 17.8.1: Proportion of individuals using the Internet

Jadual 6.15 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2020 - 2022

Table 6.15 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2020 - 2022

Negeri State	Mendapatkan Maklumat Access to Information										Menyertai rangkaian profesional Participating in professional networks										Bekerja dari rumah Work from home									
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
	Mendapatkan maklumat Finding information about goods/ services										Membaca akhbar/ majalah online Reading newspaper/ magazines online										Memohon pekerjaan Applying for jobs									
MALAYSIA	85.4	89.4	92.5	69.0	78.0	68.5	21.4	33.0	35.8	10.6	12.4	11.7	16.1	18.1	15.9															
Johor	86.1	97.3	97.6	58.9	76.8	67.1	21.9	29.9	34.3	5.7	10.1	9.3	10.8	14.9	8.3															
Kedah	88.2	92.4	93.6	63.8	84.5	71.0	22.2	28.6	31.4	11.1	1.7	4.9	13.8	10.0	3.7															
Kelantan	84.9	89.6	90.3	59.5	69.5	67.3	22.1	36.7	38.5	8.7	12.2	2.5	11.6	11.0	4.7															
Melaka	90.3	91.6	94.5	74.1	76.1	71.3	20.1	31.2	34.3	5.7	9.0	4.6	13.3	21.2	4.2															
Negeri Sembilan	87.4	89.0	91.0	68.6	79.6	66.7	26.8	33.8	40.2	6.5	6.7	9.8	14.2	18.7	5.5															
Pahang	86.7	88.8	90.6	50.9	72.9	69.8	19.5	34.9	35.8	10.7	13.9	3.3	14.5	14.6	5.0															
Pulau Pinang	89.8	93.8	96.0	68.9	86.3	74.6	15.6	29.5	32.5	10.8	9.6	11.6	18.1	18.0	20.0															
Perak	81.5	90.4	95.8	74.8	79.3	72.4	16.8	31.9	34.7	6.6	7.5	2.1	10.5	14.7	18.6															
Perlis	84.1	85.8	78.1	71.5	65.3	56.0	22.3	27.9	29.3	4.3	4.4	3.4	13.8	10.0	5.8															
Selangor	91.4	93.1	98.2	82.6	83.9	71.9	21.6	28.7	32.6	16.7	16.8	20.2	21.1	24.6	28.6															
Terengganu	93.4	96.5	97.6	75.0	74.9	70.7	26.7	33.9	35.4	6.0	22.4	24.3	12.1	16.8	19.1															
Sabah	70.0	74.1	78.1	55.9	74.6	55.7	17.7	42.2	45.4	4.7	9.8	10.3	10.9	12.2	13.2															
Sarawak	75.6	78.3	79.8	60.2	68.3	56.2	22.5	38.7	39.2	6.8	12.4	11.2	15.6	17.7	17.8															
W.P. Kuala Lumpur	93.6	95.0	93.5	90.4	79.4	80.0	30.4	32.4	36.3	26.6	25.4	19.6	34.3	34.4	22.0															
W.P. Labuan	94.2	98.3	95.0	61.7	91.0	82.4	15.4	34.8	36.3	6.5	30.4	7.1	13.7	28.4	14.9															
W.P. Putrajaya	94.2	95.1	96.6	91.5	74.0	89.4	26.3	24.1	29.9	43.7	18.9	15.9	41.9	50.0	27.3															

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 6.15 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2020 - 2022 (samb.)

Table 6.15 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2020 - 2022 (cont'd)

Negeri State	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	(%)
	Menguruskan blog Managing blog			Kommunikasi Communication			Mengkakses perbincangan atas talian Accessing online discussion			Melaksanakan tugasan jana pendapatan Performing tasks to generate income			Menggunakan perkhidmatan berkaitan perjalanan/ penginapan Using services related to travel/ accommodation			Lain-lain Perkhidmatan Atas Talian Other Online Services			Menjual barangan/ perkhidmatan selain e-Dagang Selling goods/ services other than e-Commerce
MALAYSIA	4.1	5.3	5.5	22.4	38.2	39.3	8.3	10.9	15.5	31.6	40.8	36.6	10.6	11.3	14.2				
Johor	1.6	2.6	5.7	9.9	33.7	34.7	3.9	9.9	16.0	23.7	36.3	37.8	8.5	11.4	12.6				
Kedah	0.7	0.3	0.4	17.4	20.3	22.2	4.7	3.6	12.0	30.7	41.4	19.1	5.4	5.5	11.2				
Kelantan	1.3	1.2	3.0	11.2	34.2	36.2	6.8	10.4	12.4	10.6	31.5	22.9	10.0	9.9	11.7				
Melaka	7.7	5.1	2.1	12.1	46.7	47.1	7.9	9.5	15.7	40.0	39.8	23.6	16.0	10.2	13.0				
Negeri Sembilan	2.5	11.2	7.4	16.5	42.0	42.8	5.9	8.1	17.3	21.5	46.9	18.0	9.1	5.7	10.0				
Pahang	1.5	1.1	1.6	19.1	24.0	29.0	3.2	6.1	12.8	17.5	26.7	29.9	5.7	6.7	10.8				
Pulau Pinang	10.5	5.0	4.2	30.8	28.4	27.4	8.1	8.6	9.8	46.8	44.9	35.3	8.8	6.7	8.4				
Perak	3.5	8.0	4.8	15.4	26.1	27.6	5.6	7.5	13.5	25.4	32.0	32.2	10.0	11.5	12.9				
Perlis	1.0	5.8	0.5	21.0	28.4	32.0	7.2	5.0	6.4	20.9	14.6	25.2	9.6	5.4	9.3				
Selangor	5.9	9.0	10.9	32.3	53.1	52.0	14.2	17.2	18.6	41.2	52.1	53.2	14.5	16.0	21.9				
Terengganu	3.0	0.9	0.6	11.2	16.2	19.0	16.2	20.0	21.4	55.1	60.3	49.3	19.2	20.6	23.5				
Sabah	0.9	4.0	3.0	20.6	39.0	38.0	7.8	9.1	11.9	22.4	32.2	30.2	9.7	10.1	12.6				
Sarawak	1.2	1.3	1.5	23.6	38.5	35.7	4.5	9.8	12.2	17.3	28.9	24.7	6.5	9.6	11.4				
W.P. Kuala Lumpur	15.1	13.4	10.1	45.6	62.3	66.4	11.7	12.6	24.4	61.0	61.4	51.9	13.9	13.7	9.5				
W.P. Labuan	1.3	28.9	22.3	2.1	30.0	33.9	4.2	28.4	29.4	16.9	59.8	33.9	5.9	30.7	10.8				
W.P. Putrajaya	9.8	4.6	10.6	37.6	60.8	64.8	16.7	10.2	21.9	51.9	52.2	33.8	13.2	16.2	16.5				

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 6.15 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2020 - 2022 (samb.)

Table 6.15 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2020 - 2022 (cont'd)

Negeri State	Lain-lain Perkhidmatan Atas Talian Other Online Services										Membuat pesanan barangan/ perkhidmatan atas talian selain e-Dagang Ordering goods/ services online other than e-Commerce				Aktiviti Pembelajaran Learning Activities			
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
	Menggunakan perbankan Internet Using Internet banking			Menggunakan perisian untuk menyunting teks Using software for editing texts			Memuat turun perisian/ aplikasi Downloading software/ applications			Membuat pesanan barangan/ perkhidmatan atas talian selain e-Dagang Ordering goods/ services online other than e-Commerce			Menjalani kursus formal atas talian Doing a formal online course					
MALAYSIA	61.9	70.5	74.8	26.3	39.9	35.9	78.4	86.3	89.1	54.4	60.6	50.4	18.0	29.9	26.4			
Johor	58.2	72.0	75.6	15.9	34.2	33.7	69.4	79.9	85.6	51.1	60.7	53.2	10.3	28.0	22.8			
Kedah	60.3	72.4	73.3	23.3	27.2	25.4	73.2	95.7	96.7	55.8	59.7	46.3	19.7	24.5	19.4			
Kelantan	49.2	61.3	66.6	14.4	37.4	24.5	81.3	83.4	85.4	52.5	49.3	38.1	12.9	30.9	21.5			
Melaka	69.8	69.2	74.2	23.1	45.1	27.5	68.5	82.7	84.8	69.1	67.9	50.6	22.9	24.3	22.5			
Negeri Sembilan	65.4	69.0	72.5	24.3	59.9	45.8	77.8	92.3	93.1	41.9	61.4	45.9	19.2	17.7	22.4			
Pahang	56.2	66.7	73.6	18.4	35.0	21.4	75.6	80.3	85.5	43.4	52.3	40.0	8.9	25.2	21.8			
Pulau Pinang	70.2	75.4	78.1	25.5	32.2	31.8	78.5	86.3	86.4	58.6	58.0	52.5	16.0	22.7	16.1			
Perak	57.4	66.2	67.6	17.9	30.4	32.6	70.7	73.3	79.6	52.6	50.4	40.7	15.3	33.7	23.7			
Perlis	51.1	52.7	53.6	24.3	15.6	13.0	79.3	78.2	72.4	63.0	45.4	41.0	19.6	26.7	21.5			
Selangor	73.4	84.6	89.8	41.9	63.2	55.7	87.1	93.4	94.7	59.7	79.3	68.7	25.4	40.1	37.6			
Terengganu	73.3	81.0	83.2	35.8	39.1	37.8	79.8	85.8	89.6	73.8	80.2	70.4	18.1	46.3	43.9			
Sabah	42.5	49.2	52.9	16.2	22.4	23.0	83.1	91.7	97.6	46.0	49.7	40.3	10.4	21.4	20.1			
Sarawak	49.0	59.5	60.1	17.3	28.2	24.0	75.5	83.0	84.4	44.1	34.2	25.1	11.0	28.9	20.8			
W.P. Kuala Lumpur	83.2	85.8	85.9	49.0	54.2	42.8	79.9	83.2	83.3	68.0	78.0	50.1	39.1	29.0	32.9			
W.P. Labuan	64.5	85.5	86.7	28.1	59.2	21.3	85.1	83.6	50.4	18.0	82.0	39.2	9.0	38.7	18.0			
W.P. Putrajaya	86.3	89.5	90.9	44.2	36.2	42.6	88.8	95.3	95.9	72.3	72.4	72.7	69.0	61.1	31.1			

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 6.15 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2020 - 2022 (samb.)

Table 6.15 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2020 - 2022 (cont'd)

Negeri State	Aktiviti Pembelajaran Learning Activities										Hiburan Entertainment				Muat turun gambar/ file/mu- permainan Downloading pictures/ movie/ games			
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
	Merujuk laman web untuk pembelajaran formal Consulting websites for formal learning purposes			Menjalani kursus tidak formal atas talian Doing an informal online course			Mendengar radio secara atas talian Listening to radio online			Menonton televisyen secara atas talian Watching television online								
MALAYSIA	40.3	59.0	52.9	20.8	28.7	26.1	53.8	64.9	72.8	55.5	65.0	68.1	87.9	91.8	93.5			
Johor	39.6	59.3	52.8	17.9	21.9	22.6	64.7	78.3	79.7	44.8	63.1	64.5	85.7	88.9	92.7			
Kedah	34.9	56.0	48.7	14.5	18.5	17.7	53.5	68.2	79.1	42.4	63.8	67.8	91.4	96.7	97.5			
Kelantan	37.2	47.4	39.3	14.5	29.2	22.9	43.9	48.0	66.7	36.6	49.5	62.8	87.8	90.0	90.8			
Melaka	32.7	61.7	57.5	17.5	31.3	22.2	49.6	73.6	79.0	57.9	72.6	77.9	89.4	92.1	94.9			
Negeri Sembilan	45.0	56.2	48.4	26.6	25.3	19.2	78.0	73.7	78.7	49.7	65.5	70.1	85.0	93.9	96.0			
Pahang	30.4	56.7	49.5	10.4	20.3	21.5	33.6	38.3	64.8	44.8	50.8	59.0	84.3	85.5	88.8			
Pulau Pinang	31.8	60.3	56.1	17.4	20.6	15.6	69.6	80.3	82.5	70.3	84.5	88.8	90.0	92.6	93.2			
Perak	39.1	54.7	46.4	17.0	38.0	30.4	49.9	55.1	60.8	54.0	67.4	67.8	81.1	86.1	86.9			
Perlis	37.0	50.1	42.8	34.6	17.4	26.2	67.6	67.8	71.7	38.9	55.1	34.9	84.3	85.7	86.3			
Selangor	60.6	69.4	62.9	37.5	46.3	39.5	49.0	71.8	77.9	63.3	66.9	71.6	89.7	96.6	97.3			
Terengganu	38.6	60.6	53.1	18.7	49.0	38.2	61.0	94.5	96.4	75.7	78.0	78.9	91.5	96.6	97.2			
Sabah	24.2	51.8	45.9	12.5	17.4	17.8	40.9	45.5	54.0	46.0	54.3	56.9	89.4	92.5	95.1			
Sarawak	26.8	52.7	48.0	9.0	16.2	12.5	47.2	49.3	56.4	66.5	67.8	68.7	86.7	86.0	86.4			
W.P. Kuala Lumpur	45.9	65.9	57.6	25.4	28.2	33.8	74.6	78.7	78.9	69.0	69.4	65.5	90.6	92.2	93.2			
W.P. Labuan	18.0	62.3	60.4	6.0	37.8	14.1	84.2	83.2	85.3	73.0	98.4	53.8	95.6	98.5	99.6			
W.P. Putrajaya	62.3	76.0	67.6	32.1	33.7	20.5	86.2	76.8	96.9	76.6	83.3	82.3	92.2	96.2	98.2			

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

Jadual 6.15 : Peratusan individu menggunakan Internet mengikut negeri dan jenis aktiviti, Malaysia, 2020 - 2022 (samb.)

Table 6.15 : Percentage of individuals using the Internet by state and type of activity, Malaysia, 2020 - 2022 (cont'd)

	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	(%)
Negeri State	Ruang Penyimpanan Storage Space			e-Kesihatan e-Health			Membuat temujanji kesihatan Making a medical appointment			Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations			e-Kerajaan e-Government			Berinteraksi dengan organisasi kerajaan Interacting with government organisations
	Menggunakan ruang simpanan di Internet Using storage space on the Internet	Mendapatkan maklumat kesihatan Seeking health information	Membuat temujanji kesihatan Making a medical appointment	Mendapatkan maklumat kesihatan Seeking health information	Membuat temujanji kesihatan Making a medical appointment	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Membuat temujanji kesihatan Making a medical appointment	Membuat temujanji kesihatan Making a medical appointment	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	Mendapatkan maklumat daripada organisasi kerajaan Getting information from government organisations	e-Kerajaan e-Government	e-Kerajaan e-Government		
MMALAYSIA	53.5	64.6	51.2	61.9	73.8	62.3	10.7	43.5	31.7	52.9	68.1	54.8	35.2	51.9	38.4	
Johor	53.2	65.5	51.7	46.1	75.7	65.7	12.1	41.7	24.7	50.5	74.9	67.4	35.9	62.3	47.2	
Kedah	42.7	68.0	50.8	68.0	87.6	67.5	6.6	22.8	16.9	43.9	95.8	84.4	25.2	67.5	45.9	
Kelantan	35.0	60.8	41.3	45.8	77.7	50.7	1.6	63.3	19.4	43.6	60.7	39.2	21.1	29.4	29.3	
Melaka	53.2	64.9	44.9	52.4	74.6	54.2	12.9	29.3	18.3	52.7	63.3	55.9	40.3	43.1	30.2	
Negeri Sembilan	63.3	62.4	55.2	60.2	81.8	52.4	8.3	24.8	22.4	55.7	71.5	43.9	36.9	29.8	28.1	
Pahang	54.3	62.7	40.9	42.1	63.5	51.4	4.0	38.6	17.2	52.0	59.3	35.2	32.3	40.8	30.3	
Pulau Pinang	53.2	58.7	46.7	56.9	66.2	57.9	11.2	22.0	21.1	51.3	68.6	59.1	34.2	65.9	43.9	
Perak	33.0	59.5	55.4	53.0	71.1	62.6	3.8	37.2	27.5	45.1	68.9	51.6	28.4	69.9	42.5	
Perlis	54.1	54.9	26.3	65.8	70.9	46.7	4.3	11.9	9.6	59.5	74.9	46.6	28.4	60.2	35.4	
Selangor	72.4	75.1	57.7	77.4	74.7	65.7	18.9	56.5	49.6	63.8	65.4	53.8	42.0	44.5	42.4	
Terengganu	55.5	67.2	49.4	70.6	91.5	71.1	11.5	75.5	64.6	59.6	93.6	63.9	44.0	90.8	69.4	
Sabah	35.1	54.6	45.9	66.6	79.9	76.4	3.7	47.8	41.7	38.4	66.3	57.1	25.5	41.2	24.2	
Sarawak	45.8	58.3	51.3	59.2	57.9	45.5	7.3	39.2	24.4	49.1	46.6	32.4	29.7	45.4	20.9	
W.P. Kuala Lumpur	75.4	70.1	55.7	72.1	65.6	63.7	22.1	43.7	23.9	73.1	66.6	54.5	59.2	54.2	38.1	
W.P. Labuan	57.1	76.5	28.2	64.1	79.3	49.2	4.4	49.7	22.9	33.2	54.8	48.7	21.0	29.6	39.8	
W.P. Putrajaya	75.8	86.2	77.7	89.8	71.4	81.2	24.6	31.3	15.2	74.2	94.8	61.6	65.7	87.7	56.1	

Nota: Rujuk nota teknikal muka surat 135 - 137 untuk perincian aktiviti

Note: Refer to technical notes page 149 - 151 for detailed activities

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RALAT PIAWAI RELATIF
RELATIVE STANDARD ERROR

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Jadual 7.1 : Ralat piawai relatif bagi anggaran peratusan capaian perkhidmatan dan peralatan ICT oleh isi rumah mengikut strata, Malaysia, 2022

Table 7.1 : Relative standard error of estimates for percentage of households with access to ICT services and equipment by strata, Malaysia, 2022

Perkhidmatan dan peralatan ICT ICT services and equipment	Peratusan capaian ICT oleh isi rumah Percentage of ICT access by households			Ralat piawai bagi anggaran Standard error of estimates (%)						Peratusan capaian ICT oleh isi rumah pada 95% selang keyakinan Percentage of ICT access by households at 95% confidence interval		
	Malaysia	Bandar Urban	Luar bandar Rural	Nilai relatif Relative value			Ralat piawai Standard error			Malaysia	Bandar Urban	Luar bandar Rural
				Malaysia	Bandar Urban	Luar bandar Rural	Malaysia	Bandar Urban	Luar bandar Rural			
Internet	96.0	98.1	89.1	0.1	0.1	0.3	0.1	0.1	0.3	95.8 - 96.3	97.9 - 98.3	88.5 - 89.7
Komputer Computer	91.3	94.0	82.4	0.2	0.2	0.5	0.2	0.2	0.4	90.9 - 91.7	93.5 - 94.4	81.5 - 83.1
Telefon bimbit Mobile phone	99.3	99.6	98.2	0.1	0.1	0.1	0.1	0.1	0.1	99.2 - 99.4	99.5 - 99.7	97.9 - 98.4
Siaran TV berbayar Pay TV channel	76.9	80.8	63.9	0.4	0.5	0.7	0.3	0.4	0.5	76.2 - 77.5	80.0 - 81.5	62.9 - 64.8
Televisyen Television	99.2	99.5	98.4	0.1	0.1	0.1	0.1	0.1	0.1	99.1 - 99.3	99.3 - 99.6	98.1 - 98.6
Radio	99.1	99.4	98.0	0.1	0.1	0.1	0.1	0.1	0.1	99.0 - 99.2	99.3 - 99.6	97.6 - 98.3
Telefon talian tetap Fixed-line telephone	27.3	30.7	15.8	1.5	1.6	2.3	0.4	0.5	0.4	26.5 - 28.0	29.7 - 31.7	15.1 - 16.5

Jadual 7.2 : Ralat piawai relatif bagi anggaran peratusan penggunaan perkhidmatan dan peralatan ICT oleh individu mengikut strata, Malaysia, 2022

Table 7.2 : Relative standard error of estimates for percentage of individuals using ICT services and equipment by strata, Malaysia, 2022

Perkhidmatan dan peralatan ICT ICT services and equipment	Peratusan penggunaan ICT oleh individu Percentage of individuals using ICT			Ralat piawai bagi anggaran Standard error of estimates (%)						Peratusan penggunaan ICT oleh individu pada 95% selang keyakinan Percentage of individuals using ICT at 95% confidence interval		
	Percentage of individuals using ICT			Nilai relatif Relative value			Ralat piawai Standard error			Percentage of individuals using ICT at 95% confidence interval		
	Malaysia	Bandar Urban	Luar bandar Rural	Malaysia	Bandar Urban	Luar bandar Rural	Malaysia	Bandar Urban	Luar bandar Rural	Malaysia	Bandar Urban	Luar bandar Rural
Internet	97.4	98.3	94.5	0.1	0.1	0.2	0.1	0.1	0.2	97.2 - 97.5	98.1 - 98.5	94.2 - 94.9
Komputer Computer	80.2	85.7	63.1	0.3	0.3	0.8	0.3	0.3	0.5	79.8 - 80.8	85.4 - 86.5	61.7 - 63.7
Telefon bimbit Mobile phone	99.1	99.4	98.3	0.0	0.1	0.1	0.0	0.1	0.1	99.1 - 99.2	99.3 - 99.5	98.2 - 98.5



NOTA TEKNIKAL
TECHNICAL NOTES



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1. PENGENALAN

Statistik yang diterbitkan dalam laporan ini adalah hasil dapatan Survei Penggunaan dan Capaian ICT oleh Individu dan Isi Rumah (ICTHS) 2022. Ianya menyediakan data di peringkat nasional, negeri dan daerah pentadbiran. Garis panduan, konsep dan definisi yang digunakan dalam penerbitan ini adalah berdasarkan daripada *Manual for Measuring ICT Access and Use by Households and Individuals, 2020 Edition* yang diterbitkan oleh *International Telecommunication Union* (ITU).

ICTHS telah dijalankan bermula tahun rujukan 2013, diikuti pada 2015 dan 2017. Bermula tahun 2018, survei ini dijalankan secara tahunan. Nota teknikal ini membantu pengguna untuk memahami dengan lebih jelas berkaitan data yang diterbitkan.

2. OBJEKTIF SURVEI

Objektif utama adalah seperti berikut:

- i. Mengumpul maklumat yang lengkap dan terkini berkenaan penggunaan dan capaian ICT oleh individu dan isi rumah (IR);
- ii. Menjadi input dalam penyusunan Akaun Satelit ICT (ICTSA); dan
- iii. Mengira penunjuk ICT bagi mengukur pembangunan ICT negara dan penjanaaan Ekonomi Digital.

3. KAEDAH PENGUMPULAN DATA

- 3.1 Survei ini menggunakan kaedah temu ramah bersemuka dengan menggunakan borang soal selidik bagi mendapatkan maklumat daripada responden. Dalam tempoh survei, penemuramah yang dilatih akan melawat IR di tempat kediaman (TK) terpilih bagi mengumpul maklumat berkaitan demografi ahli isi rumah dan maklumat terperinci berkaitan penggunaan dan capaian peralatan dan perkhidmatan ICT.
- 3.2 Semakan kualiti data dibuat oleh pegawai berpengalaman dari DOSM Negeri bagi mengesan dan membetulkan sebarang kesilapan atau maklumat yang tertinggal ketika survei dilaksanakan. Proses semakan semula juga dilaksanakan bagi IR terpilih untuk memastikan kualiti pungutan data.

4. TEMPOH RUJUKAN

ICTHS 2022 dilaksanakan selama tiga bulan iaitu pada September hingga November 2022. Tempoh rujukan bagi penggunaan ICT oleh individu adalah merujuk kepada tiga bulan yang lalu sebelum temuramah. Contoh, sekiranya bulan survei adalah Oktober 2022, maka tempoh rujukan yang diukur adalah mulai 1 Julai 2022 sehingga 30 September 2022.

5. SKOP DAN LIPUTAN

- 5.1 Pemilihan sampel bagi survei ini telah mengambil kira kedua-dua kawasan bandar dan luar bandar dalam daerah pentadbiran bagi semua negeri di Malaysia.
- 5.2 Liputan survei meliputi IR yang tinggal di TK persendirian dan tidak termasuk mereka yang tinggal di TK institusi seperti asrama, hotel, hospital, rumah orang tua, berek tentera dan polis, penjara dan rumah kebajikan.
- 5.3 Survei ini meliputi ahli isi rumah yang berumur lima tahun dan ke atas. Walau bagaimanapun, bagi membolehkan perbandingan dibuat dengan survei terdahulu, analisis bagi penggunaan ICT hanya melibatkan individu berusia 15 tahun dan ke atas sahaja.

6. RANGKA PENSAMPELAN

- 6.1 Rangka yang digunakan bagi pemilihan sampel ICTHS 2022 adalah berdasarkan Rangka Pensampelan Isi Rumah yang terdiri daripada blok penghitungan (BP) yang diwujudkan untuk Banci Penduduk dan Perumahan 2020 yang dikemaskini dari semasa ke semasa. BP merupakan suatu kawasan muka bumi yang diwujudkan untuk tujuan pelaksanaan operasi survei yang secara puratanya mengandungi antara 80 hingga 120 TK. Semua BP dibentuk dalam lingkungan sempadan yang diwartakan iaitu di dalam daerah pentadbiran, mukim atau kawasan pihak berkuasa tempatan.

- 6.2 BP dalam rangka pensampelan dikelaskan mengikut kawasan bandar dan luar bandar. Kawasan bandar ialah kawasan yang diwartakan serta kawasan tepu bina yang bersempadan dengannya dan gabungan kedua-dua kawasan ini mempunyai jumlah penduduk seramai 10,000 atau lebih semasa Banci Penduduk dan Perumahan 2020. Kawasan selainnya yang diwartakan dan mempunyai jumlah penduduk kurang daripada 10,000 orang serta kawasan yang tidak diwartakan dikelaskan sebagai kawasan luar bandar.
- 6.3 Kawasan tepu bina adalah kawasan yang terletak bersebelahan kawasan yang diwartakan dan mempunyai sekurang-kurangnya 60 peratus penduduk (berumur 15 tahun dan ke atas) yang terlibat di dalam aktiviti bukan pertanian.
- 6.4 Definisi kawasan bandar juga mengambil kira kawasan pembangunan khusus iaitu kawasan pembangunan yang tidak diwartakan dan boleh dikenalpasti serta terpisah dari kawasan yang diwartakan atau kawasan tepu bina melebihi lima kilometer dan mempunyai penduduk sekurang-kurangnya 10,000 orang dengan 60 peratus penduduk (berumur 15 tahun dan ke atas) yang terlibat dalam aktiviti bukan pertanian.
- 6.5 Pembandaran merupakan proses yang dinamik dan sentiasa berubah mengikut kemajuan dan pembangunan. Oleh itu, kawasan bandar bagi Banci Penduduk dan Perumahan 2010 dan 2020 tidak semestinya merujuk kepada kawasan yang sama kerana kawasan yang memenuhi kriteria bandar akan terus bertambah dan berkembang mengikut masa.
- 6.6 Klasifikasi kawasan mengikut strata yang digunakan adalah seperti berikut:

Strata	Jumlah penduduk dalam kawasan yang diwartakan, tepu bina dan kawasan pembangunan khusus
Metropolitan	75,000 dan ke atas
Bandar besar	10,000 hingga 74,999
Bandar kecil	1,000 hingga 9,999
Luar bandar	Kawasan selebihnya

6.7 Bagi tujuan pensampelan, klasifikasi kawasan seperti di perkara 6.6 adalah digunakan untuk semua negeri serta Wilayah Persekutuan. Bagi Sabah dan Sarawak, memandangkan masalah kesukaran untuk akses ke kawasan pedalaman, strata luar bandar dikembangkan lagi berdasarkan kepada jangka waktu yang diambil untuk sampai ke sesuatu tempat dari pusat bandar yang terdekat.

6.8 Bagi tujuan penjadualan laporan, strata-strata dicantumkan seperti berikut:

Bandar = Metropolitan + Bandar besar

Luar bandar = Bandar kecil + Keseluruhan luar bandar

7. REKA BENTUK PENSAMPELAN

7.1 Reka bentuk pensampelan berstrata dua peringkat (*two-stage stratified sampling*) telah digunakan dalam ICTHS 2022. Unit pensampelan peringkat pertama adalah BP, dipilih secara rawak menggunakan kaedah *Systematic Random Sampling*.

7.2 BP dipilih secara berasingan mengikut strata seperti berikut:

Strata pertama	Negeri
Strata kedua	Daerah pentadbiran mengikut negeri
Strata ketiga	Bandar/ luar bandar mengikut daerah pentadbiran

7.3 Seterusnya unit pensampelan peringkat kedua adalah TK dan sampel TK dipilih dari BP yang terpilih menggunakan kaedah *Systematic Random Sampling* melalui penjaan nombor rawak dan menetapkan selang pemilihan supaya setiap TK mempunyai kebarangkalian yang sama untuk terpilih. Prosedur ini dilaksanakan secara teratur dan saintifik untuk menghasilkan sampel yang tidak pincang (*unbiased*) dan boleh mewakili keseluruhan populasi IR di Malaysia.

8. SAIZ SAMPEL

8.1 Saiz sampel ICTHS 2022 mewakili populasi mengikut peringkat analisis yang ditetapkan. Saiz sampel ini telah mengambil kira faktor-faktor berikut:

- i. Statistik terpilih daripada survei yang lepas;
- ii. Peringkat reka bentuk pensampelan;
- iii. Ralat yang disasarkan; dan
- iv. Kadar respon

8.2 Agihan saiz sampel ICTHS 2022 adalah seperti berikut:

Negeri	Bilangan BP terpilih	Bilangan TK terpilih
Johor	336	2,688
Kedah	370	2,960
Kelantan	331	2,648
Melaka	150	1,200
Negeri Sembilan	264	2,112
Pahang	349	2,792
Pulau Pinang	190	1,520
Perak	380	3,040
Perlis	93	744
Selangor	314	2,512
Terengganu	278	2,224
Sabah	508	3,967
Sarawak	577	4,615
W.P. Kuala Lumpur	71	568
W.P. Labuan	37	296
W.P. Putrajaya	32	256
MALAYSIA	4,280	34,142

9. PENILAIAN DATA

- 9.1 Data yang diperoleh daripada survei yang dijalankan secara sampel berkebarangkalian ini tertakluk kepada dua jenis ralat iaitu ralat pensampelan dan ralat bukan pensampelan.

i. Ralat pensampelan

Ralat pensampelan berpunca daripada anggaran data yang terhasil daripada sampel berkebarangkalian. Ralat ini boleh diukur dengan menganggarkan Ralat Piawai Relatif dan dinyatakan dalam bentuk peratusan. Ia digunakan sebagai penunjuk kepada kepersisan anggaran parameter yang dikaji. Ini memberi gambaran tahap variasi anggaran pembolehubah yang dianggarkan melalui survei berbanding dengan parameter populasi.

Sebagai contoh, penemuan ICTHS 2022 mendapati peratusan capaian isi rumah terhadap Internet bagi Malaysia adalah 96.0 peratus dengan Ralat Piawai Relatif 0.1 peratus. Dalam erti kata lain, peratus Ralat Piawai adalah 0.1 peratus. Berasaskan 95 peratus selang keyakinan ($\alpha=0.05$), peratusan capaian isi rumah terhadap Internet berada dalam batasan antara 95.8% - 96.3%.

ii. Ralat bukan pensampelan

Ralat ini boleh berpunca daripada liputan survei yang tidak lengkap, kelemahan rangka, ralat maklumbalas, tiada respons dan kesilapan semasa prosesan seperti di peringkat penyuntingan, pengekodan dan tangkapan data. Bagi memastikan kualiti data berada pada tahap yang tinggi, beberapa langkah pentadbiran telah diambil supaya **ralat bukan pensampelan** berada di tahap minimum. Antaranya, latihan intensif kepada penyelia dan penemuramah. Selain daripada itu, penyeliaan yang rapi dan semakan rambang dijalankan ke atas isi rumah yang telah diliputi oleh penemuramah untuk memastikan kesahihan maklumat yang direkodkan.

Bagi mengatasi kes tiada respons yang berpunca daripada beberapa sebab seperti TK kosong, tiada penghuni di rumah, enggan bekerjasama atau TK tidak layak diliputi dalam survei, maka penganggaran saiz sampel ICTHS 2022 telah mengambil kira semua kemungkinan tersebut.

Pengemaskinian rangka pensampelan yang dilaksanakan dari semasa ke semasa telah dapat mengurangkan kadar tiada respons yang berpunca daripada TK kosong. Publisiti yang meluas dilaksanakan melalui media elektronik serta media cetak bagi mengurangkan kes tiada penghuni di rumah dan enggan bekerjasama.

Selain daripada itu, di peringkat prosesan data, semakin konsistensi bagi setiap pembolehubah dan proses validasi telah dilaksanakan secara sistematik bagi meminimumkan kesemua ralat bukan pensampelan.

10. LIMITASI SURVEI

Terdapat beberapa limitasi dan juga cabaran yang dihadapi dalam pelaksanaan survei ini. Antaranya:

- i. Survei ini dijalankan ke atas isi rumah dan individu yang terpilih di seluruh Malaysia. Namun, ia digunakan untuk menyokong dalam memberi gambaran tentang capaian dan penggunaan ICT
- ii. Selain itu, liputan survei ini hanya merangkumi pada peringkat negeri bagi strata 1 dan 2 untuk bandar dan strata 3 hingga 6 bagi luar bandar.
- iii. Analisis terperinci data penggunaan dan capaian ICT oleh individu dan isi rumah bagi peringkat daerah pentadbiran adalah berdasarkan kebolehpercayaan nilai relatif sehingga tidak melebihi selang toleransi 20 peratus.
- iv. Oleh yang demikian, penemuan survei ini perlu digunakan secara berhati-hati dan DOSM tidak bertanggungjawab ke atas sebarang implikasi daripada penggunaan statistik ini.

11. KONSEP DAN DEFINISI

11.1 TEMPAT KEDIAMAN

Tempat kediaman adalah suatu struktur yang dibina **berasingan** dan **bebas** yang lazimnya digunakan untuk tempat tinggal. Istilah berasingan dan bebas bermaksud seperti berikut:

- 
- i. **Berasingan:** Struktur dianggap sebagai berasingan jika ia dikelilingi oleh dinding, pagar dan lain-lain serta ditutupi oleh bumbung.
 - ii. **Bebas:** Struktur dikatakan bebas apabila ia mempunyai jalan masuk terus dari laluan umum, tempat lalu lintas atau ruang lapang (iaitu penghuni boleh masuk atau keluar dari TK mereka tanpa melalui perkarangan orang lain).

11.2 ISI RUMAH

Isi rumah ditakrifkan sebagai seseorang atau sekumpulan orang yang bersaudara atau tidak bersaudara yang biasanya tinggal bersama dalam satu TK serta membuat peruntukan (perbelanjaan) secara bersama untuk makanan dan keperluan hidup yang lain.

11.3 KETUA ISI RUMAH

Ketua IR ditakrifkan sebagai seorang ahli biasa sama ada lelaki atau perempuan yang dianggap sebagai ketua oleh ahli IR yang lain. Ketua IR mesti seorang penerima pendapatan dan berumur 15 tahun dan ke atas.

11.4 CAPAIAN DAN PENGGUNAAN ICT

11.4.1 Capaian ICT oleh isi rumah: Sesebuah isi rumah dianggap mempunyai capaian kepada perkhidmatan dan peralatan ICT sekiranya ia masih boleh digunakan ketika temu ramah dijalankan.

11.4.2 Penggunaan ICT oleh individu:

- Penggunaan perkhidmatan dan peralatan ICT oleh seorang atau beberapa individu atau beberapa individu di dalam sesebuah isi rumah, sama ada digunakan di TK atau di tempat lain;
- Individu di sesebuah isi rumah yang berusia 15 tahun dan ke atas; dan
- Penggunaan peralatan telefon bimbit, komputer dan perkhidmatan Internet bagi tempoh tiga bulan yang lalu.

11.4.3 Indikator Utama ICT

i. Radio

Radio didefinisikan sebagai peranti yang mampu menerima isyarat penyiaran radio, menggunakan frekuensi biasa seperti FM, AM, LW dan SW. Radio boleh menjadi peranti yang berdiri sendiri, atau termasuk radio set bersepadu dengan alat yang lain seperti jam penggera, pemain audio, telefon bimbit atau komputer. Ia juga termasuk radio dalam kereta.

$$\frac{(\text{bilangan IR terpilih yang memiliki radio})}{(\text{jumlah IR terpilih})} \times 100$$

ii. Televisyen

Televisyen (TV) adalah alat yang mampu menerima isyarat siaran televisyen, menggunakan akses popular seperti *over-the-air*, kabel dan satelit. Satu set televisyen lazimnya merupakan peranti yang berdiri sendiri, namun ia boleh juga termasuk fungsi TV yang bersepadu dengan peranti lain, seperti komputer atau telefon bimbit.

$$\frac{(\text{bilangan IR terpilih yang memiliki televisyen})}{(\text{jumlah IR terpilih})} \times 100$$

iii. Telefon talian tetap

Telefon talian tetap merujuk kepada talian telefon yang menyambungkan peralatan terminal pelanggan (contohnya set telefon, mesin faksimili) kepada Rangkaian Telefon Bersuis Awam (PSTN) dan yang mempunyai sebuah port pada pertukaran telefon. Istilah ini adalah sinonim dengan stesen istilah utama atau Pertukaran Talian Terus (DEL) yang biasanya digunakan dalam dokumen telekomunikasi. Ia mungkin tidak sama seperti akses dalam talian atau langganan.

$$\frac{(\text{bilangan IR terpilih yang memiliki telefon talian tetap})}{(\text{jumlah IR terpilih})} \times 100$$

iv. Telefon bimbit

Telefon bimbit merujuk kepada telefon mudah alih yang melanggan kepada satu perkhidmatan telefon mudah alih awam menggunakan teknologi selular yang menyediakan akses bagi PSTN. Ini termasuk sistem selular analog dan digital, serta teknologi seperti IMT-2000 (3G) dan IMT-Advanced. Ia adalah termasuk akaun bagi kedua-dua pelanggan pascabayar dan prabayar.

$$\frac{(\text{bilangan IR terpilih yang memiliki telefon bimbit})}{(\text{jumlah IR terpilih})} \times 100$$

v. Komputer

Komputer merujuk kepada *desktop*, komputer riba atau papan elektronik mudah alih. Ia tidak termasuk peralatan dengan beberapa *embedded computing ability* seperti telefon bimbit, *Personal Digital Assistant* (PDA) atau set TV.

$$\frac{(\text{bilangan IR terpilih yang memiliki komputer})}{(\text{jumlah IR terpilih})} \times 100$$

vi. Internet

Internet adalah rangkaian komputer awam di seluruh dunia. Ia menyediakan akses kepada beberapa perkhidmatan komunikasi termasuk *World Wide Web* dan membawa emel, berita, hiburan dan fail data, tanpa mengira peranti yang digunakan (tidak dianggap hanya melalui komputer - ia juga boleh dibuat melalui telefon bimbit, PDA, mesin permainan, TV digital dan sebagainya). Mengakses Internet juga boleh dibuat melalui rangkaian talian tetap atau telefon bimbit.

$$\frac{(\text{bilangan IR terpilih yang memiliki Internet})}{(\text{jumlah IR terpilih})} \times 100$$

vii. Aktiviti Penggunaan Internet

Aktiviti penggunaan Internet dikategorikan seperti berikut:

a) Mendapatkan maklumat

- Mendapatkan maklumat tentang barangan atau perkhidmatan
- Membaca atau memuat turun akhbar atau majalah *online*, buku elektronik

b) Komunikasi

- Menyertai dalam rangkaian sosial (Cth: *Facebook*, *WhatsApp*, *Instagram*, *Twitter* dll)
- Menghantar atau menerima emel
- Membuat panggilan telefon melalui Internet / VoIP
- Memuat naik kandungan yang dicipta sendiri ke laman web
- Menguruskan laman web persendirian
- *Blogging*: Menyelenggara atau menambah kandungan ke dalam blog
- Mengakses laman perbualan, blog, kelompok berita atau perbincangan atas talian

c) Profesional

- Mencari pekerjaan atau menghantar permohonan kerja
- Mengambil bahagian dalam rangkaian professional (Cth: *LinkedIn* dan *Xing*)
- Mengakses sistem pengkomputeran pejabat untuk tujuan membuat kerja pejabat dari rumah

d) Sivik dan Politik

- Mengemukakan pendapat atau mengundi berkenaan isu-isu politik atau sivik (Cth: blog, media sosial, laman web)

e) Lain-lain Perkhidmatan Atas Talian

- Melaksanakan tugas yang boleh menjana pendapatan secara atas talian
- Menggunakan perkhidmatan berkaitan perjalanan atau penginapan perjalanan
- Menjual barangan atau perkhidmatan (melalui *Mudah, Facebook, WhatsApp* dsb.)
- Membeli atau membuat pesanan barangan atau perkhidmatan selain e-Dagang (melalui *Mudah, Facebook, WhatsApp* dsb.)
- Perbankan Internet
- Menggunakan perisian melalui Internet untuk menyunting teks pada dokumen, lembaran kerja atau persembahan
- Memuat turun perisian atau aplikasi

f) Ruang Penyimpanan

- Menggunakan ruang simpanan di Internet untuk menyimpan dokumen, gambar, muzik, video atau fail lain (Cth: *Google Drive, Dropbox, Window SkyDrive, iCloud, Amazon Cloud Drive*)

g) Aktiviti Pembelajaran

- Menjalani kursus formal atas talian
- Merujuk kepada wiki (*Wikipedia* dsb.), ensiklopedia atas talian atau laman web lain untuk tujuan pembelajaran formal
- Menjalani kursus/ latihan tidak formal atas talian

h) e-Kesihatan

- Mendapatkan maklumat berkaitan kesihatan atau perkhidmatan kesihatan (Cth: berkaitan penyakit, kecederaan, nutrisi dll.)
- Membuat temu janji dengan pengamal perubatan melalui laman web

i) e-Kerajaan

- Mendapatkan maklumat daripada organisasi kerajaan
- Berinteraksi dengan organisasi kerajaan

j) Hiburan

- Mendengar radio secara atas talian
- Menonton televisyen secara atas talian
- Memuat turun gambar, filem, video atau muzik; bermain atau memuat turun permainan

k) e-Dagang

- Membeli atau membuat pesanan barangan atau perkhidmatan (e-Dagang)
- Menjual barangan atau perkhidmatan melalui e-Dagang

l) Keselamatan, Perlindungan *Online* dan Kesedaran

- Mempunyai peralatan keselamatan & mengambil langkah perlindungan dalam talian yang mencukupi
- Mengesahkan kebolehpercayaan maklumat yang terdapat di dalam talian
- Menetapkan langkah-langkah keselamatan yang berkesan (Cth: kata laluan yang kuat, pemberitahuan percubaan log masuk) untuk melindungi peranti dan akaun dalam talian
- Mengubah tetapan privasi pada peranti, akaun atau aplikasi anda untuk membatasi perkongsian data dan maklumat peribadi. (Cth: nama, maklumat perhubungan, foto)
- Sebagai pengguna Internet adakah anda sedar tentang jenayah siber berikut? (Cth: spam, penggodaman, penipuan dalam talian, komplot penipuan, mengintai/menghendap siber, pancingan data, buli siber, pemalsuan identiti, berita palsu dan penyebaran virus komputer)

11.4.4 Statistik Terpilih Malaysia daripada Suruhanjaya Komunikasi dan Multimedia Malaysia (SKMM)

i. Jalur lebar

Kadar penembusan jalur lebar bagi 100 penduduk dikira dengan membahagi jumlah langganan jalur lebar tetap dan jalur lebar mudah alih dengan jumlah penduduk dan didarab dengan 100. Langganan Wi-Fi awam tidak diambil kira.

ii. Selular mudah alih

Kadar penembusan selular mudah alih dikira sebagai jumlah langganan dibahagi jumlah penduduk dan didarabkan dengan 100. Penembusan yang melebihi 100% boleh berpunca daripada pelanggan yang melanggan melebihi daripada satu langganan.

iii. Talian tetap

Kadar penembusan talian tetap dikira sebagai jumlah langganan dibahagi dengan jumlah penduduk dan didarabkan dengan 100.

iv. TV berbayar

Kadar penembusan TV berbayar bagi 100 isi rumah dikira dengan membahagi jumlah langganan isi rumah dengan jumlah isi rumah dan didarab dengan 100.

11.5 PEMBUNDARAN ANGGARAN

Pengiraan bagi sesuatu kategori mungkin tidak sentiasa sama antara jadual disebabkan oleh pembundaran secara bebas. Walau bagaimanapun, perbezaan ini adalah tidak ketara.

Peratusan yang ditunjukkan dalam jadual adalah diperolehi daripada angka sebenar dan tidak semestinya memberikan jumlah genap 100 peratus disebabkan pembundaran, walaupun jumlah yang ditunjukkan adalah 100 peratus.



11.6 NOTA DAN SIMBOL

W.P.	Wilayah Persekutuan
n.a.	Tidak berkenaan
ICT	Teknologi Maklumat dan Komunikasi
-	Tidak tersedia
0.0	Kurang daripada sesetengah unit terkecil yang ditunjukkan. Misalnya, kurang daripada 0.05 peratus

1. INTRODUCTION

The statistics released in this report are findings of the ICT Use and Access by Individuals and Households Survey (ICTHS) 2022. It provides data at national, state and administrative district levels. The guidelines, concepts and definitions used in this publication are based on the Manual for Measuring ICT Access and Use by Households and Individuals, 2020 Edition published by the International Telecommunication Union (ITU).

ICTHS was carried out starting reference year 2013, followed by 2015 and 2017. Since 2018, this survey is conducted annually. These technical notes will facilitate users with better understanding pertaining to the published statistics.

2. OBJECTIVES OF SURVEY

The main objectives are as follows:

- i. To collect the latest and specific information on ICT use and access by individuals and households (HH);*
- ii. To serve as an input in the compilation of ICT Satellite Account (ICTSA); and*
- iii. To calculate ICT indicators to measure development of national ICT and Digital Economy.*

3. METHOD OF DATA COLLECTION

- 3.1 ICTHS uses the personal interview method using the questionnaire form to obtain information from respondents. During the survey period, trained interviewers visit households in selected living quarters (LQs) to collect demographic information on all household members and detailed information on the use and access of ICT equipment and services.*
- 3.2 Quality checks were done by experienced officers from the DOSM State office to detect and correct any possibility of errors or omissions at the time when the survey is conducted. The review processes were also implemented for selected HH to ensure the quality of the data collected.*

4. REFERENCE PERIOD

ICTHS 2022 was conducted for three months from September to November 2022. The reference period for ICT use by individuals was for the last three months prior to the interview. Example, if the survey month is in October 2022, then the reference period for individuals is calculated from 1st July 2022 until 30st September 2022.

5. SCOPE AND COVERAGE

- 5.1 *The selection of the sample of this survey has taken into consideration both urban and rural areas in administrative district for all states in Malaysia.*
- 5.2 *The coverage of the survey is HH living in private LQs only and excluding those who are living in residential institutions such as hostels, hotels, hospitals, old folk's homes, military barracks and police, prisons, welfare homes and other institutions.*
- 5.3 *This survey involved individuals aged five years and above. However, to enable the comparison to be made with the previous survey, the analysis for the use of ICT only involves individuals aged 15 years and above.*

6. SAMPLING FRAME

- 6.1 *The sampling frame used for the selection of ICTHS 2022 sample are based on the Household Sampling Frame which is made up of enumeration blocks (EBs) created for the 2020 Population and Housing Census which was updated from time to time. EBs are geographical contiguous areas of land with identifiable boundaries created for survey operation purposes, which on average, contains about 80 to 120 LQs. All EBs are formed within gazette boundaries i.e. within administrative, districts or local authority areas.*
- 6.2 *The EBs in the sampling frame is classified by urban and rural areas. Urban areas are defined as in 2020 Population and Housing Census. Urban areas are gazetted areas with their adjoining built-up areas which had a combined population of 10,000 or more. Meanwhile, gazetted area with population less than 10,000 and not gazetted area are classified as rural area.*

6.3 *Built-up areas are the areas contiguous to a gazetted area and have at least 60 per cent of their population (aged 15 years and above) engaged in non-agricultural activities.*

6.4 *The definition of urban areas also takes into account the special development areas i.e. areas that are not gazetted and development can be identified and separated from the gazetted areas or built-up area of more than five kilometres and has a population of at least 10,000 people with 60 per cent of the population (aged 15 years and above) engaged in non-agricultural activities.*

6.5 *Urbanisation is a dynamic process and keeps changing with development and growth. Thus, the urban areas for 2010 and 2020 Population and Housing Censuses do not necessarily refer to the same areas, as areas fulfilling the above criteria of urban continue to expand and grow within the time.*

6.6 *The classification of areas by strata is as follows:*

Strata	Population of gazetted, built-up areas and special development area
<i>Metropolitan</i>	<i>75,000 and above</i>
<i>Urban large</i>	<i>10,000 to 74,999</i>
<i>Urban small</i>	<i>1,000 to 9,999</i>
<i>Rural</i>	<i>All other areas</i>

6.7 *For sampling purposes, classification of areas as stated in item 6.6 is used for all states and federal territories. For Sabah and Sarawak, due to inaccessibility, the rural strata had to be further stratified based on the time taken to reach the area from the nearest urban centre.*

6.8 *For the purpose of tabulation, the strata reclassified were combined as follows:*

Urban = Metropolitan + urban large

Rural = Urban small + all rural

7. SAMPLE DESIGN

7.1 The two-stage stratified sampling design was used in ICTHS 2022. The first level sampling unit were EBs, randomly selected using Probability Proportionate to Size Sampling.

7.2 EBs were selected separately according to the following strata:

Primary strata	State
Secondary strata	Administrative district by state
Tertiary strata	Urban/ rural area by administrative district

7.3 Next, the second level sampling unit were LQs and sample for LQs were selected from the EBs by using Systematic Random Sampling method that generates random number and interval class to ensure every LQs have an equal probability to be selected as a sample. This procedure is performed systematically and scientifically to produce an unbiased sample and can represent the entire populations of HH in Malaysia.

8. SAMPEL SIZE

8.1 The sample of ICTHS 2022 represents the population of the analysis level. The sample size calculation has considered the following elements:

- i. Selected statistics from previous surveys;
- ii. The level of sampling design;
- iii. Desired error; and
- iv. Respond rate

8.2 The distribution of sample size for ICTHS 2022 is as follows:

State	Number of selected EBs	Number of selected LQs
Johor	336	2,688
Kedah	370	2,960
Kelantan	331	2,648
Melaka	150	1,200
Negeri Sembilan	264	2,112
Pahang	349	2,792
Pulau Pinang	190	1,520
Perak	380	3,040
Perlis	93	744
Selangor	314	2,512
Terengganu	278	2,224
Sabah	508	3,967
Sarawak	577	4,615
W.P. Kuala Lumpur	71	568
W.P. Labuan	37	296
W.P. Putrajaya	32	256
MALAYSIA	4,280	34,142

9. DATA EVALUATION

9.1 Data obtained from probability sample survey are subject to two types of error i.e. sampling error and non-sampling error.

i. Sampling Error

Sampling error is a result of estimating data based on a probability sampling. This error can be measured by estimating the Relative Standard Error (RSE) and expressed as a percentage. It is used as an indicator of the precision of the estimated parameters studied. This estimate reflects the level of variation that was estimated through a survey variables compared with the population parameter.



For instance, in ICTHS 2022, the percentage of Internet access by household for Malaysia was 96.0 per cent with RSE of 0.1 per cent. In other words, the standard error (SE) is approximately 0.1 per cent. Based on a 95 per cent confidence level ($\alpha=0.05$), the percentage of Internet access by household was found to be in the range of 95.8% - 96.3%.

ii. Non-Sampling Error

*These errors may arise through incomplete survey coverage, weaknesses in the frame, response errors, non-response errors and also errors during processing such as editing, coding and data capture. To ensure high quality data, several administrative procedures were taken to keep **non-sampling errors** to a minimum. Intensive training was conducted for the supervisors and enumerators. In addition, close supervision and random checks were carried out on households which were covered by the enumerators to ensure the validity of the information recorded.*

In order to resolve the case of non-response error due to several reasons such as vacant house, no one at home, refusal to co-operate or not qualified LQ, the sample size estimation for ICTHS 2022 has taken into account all the possibilities.

The survey frame is updated regularly to overcome the problem of non-response due to vacant home. Wide publicity was carried out through electronic and printed media to minimise the case of 'no one at home' and refusal to cooperate.

In addition, at the data processing stage, each variable's consistency checking and validation process has been systematically implemented in order to minimise the non-sampling error.

10. LIMITATIONS OF SURVEY

Several challenges and limitations occurred during the implementation of this survey. Among them are:

- i. This survey was conducted among selected households and individuals throughout Malaysia. However, it can also be used to provide an overview of ICT accessibility and usage.*

- 
- ii. *The coverage of this survey only covers the state level for strata 1 and 2 for urban areas, whereas for strata 3 to 6 for rural areas.*
 - iii. *A detailed analysis of ICT use and access by individuals and households by administrative district level is based on a relative value reliability of not more than 20 per cent tolerance interval.*
 - iv. *The findings of the survey should be used with high precaution, and DOSM will not be responsible for any implications resulting from the use of these statistics.*

11. CONCEPTS AND DEFINITIONS

11.1 LIVING QUARTERS

*Living quarters are defined as **independent** and **separate** structures and are usually used as place of abode. The terms separate and independent mean the following:*

- i. **Separate:** *A structure is considered separate if it is surrounded by walls, fence, etc. and is covered by roof.*
- ii. **Independent:** *A structure is said to be independent if it has direct access via public path, communal passageway or space (that is, occupants can come in or go out of their LQs without passing through others' premises).*

11.2 HOUSEHOLD

A person or group of people, whether related or unrelated who usually live together in a living quarter and make provisions (expenses) for food and necessities of life together.

11.3 HEAD OF HOUSEHOLD

Head of household is defined as any members whether male or female which is considered as head of HH by other members. The Head of HH must be an income recipient and is aged 15 years and above.

11.4 ICT ACCESS AND USAGE

- 10.4.1 ICT access by households:** *In order for a household to have access to ICT services or equipment, it should be able to be used during interview.*

11.4.2 ICT use by individuals:

- *Use of ICT services and equipment by one or more individuals in a household, either it was used in LQ or elsewhere;*
- *Individuals in a household aged 15 years and above; and*
- *Use of mobile phone, computer and Internet for the last three months.*

11.4.3 Core ICT Indicators

i. Radio

A radio is defined as a device capable of receiving broadcast radio signals, using common frequencies, such as FM, AM, LW and SW. A radio may be a stand-alone device, or it may be integrated with another device, such as an alarm clock, an audio player, a mobile phone or a computer. It includes radio in a car.

$$\frac{(\text{number of in-scope household with a radio})}{(\text{total number of in-scope households})} \times 100$$

ii. Television

A television (TV) is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. A television set is typically a stand-alone device, but it may also be integrated with another device, such as a computer or a mobile phone.

$$\frac{(\text{number of in-scope household with a television})}{(\text{total number of in-scope households})} \times 100$$

iii. **Fixed-line telephone**

A fixed telephone refers to a telephone line connecting a customer's terminal equipment (e.g. telephone set, facsimile machine) to the Public Switched Telephone Network (PSTN) and which has a dedicated port on a telephone exchange. This term is synonymous with the terms main station or Direct Exchange Line (DEL) that are commonly used in telecommunication documents. It may not be the same as an access line or a subscription.

$$\frac{(\text{number of in-scope household with a fixed-line telephone})}{(\text{total number of in-scope households})} \times 100$$

iv. **Mobile phone**

A mobile phone refers to a portable telephone subscribing to a public mobile phone service using cellular technology, which provides access to the PSTN. This includes analogue and digital cellular systems and technologies such as IMT-2000 (3G) and IMT-Advanced. Users of both postpaid subscriptions and prepaid accounts are included.

$$\frac{(\text{number of in-scope household with a mobile phone})}{(\text{total number of in-scope households})} \times 100$$

v. **Computer**

A computer refers to a desktop, a laptop (portable) computer or a tablet (or similar handheld computer). It does not include equipment with some embedded computing ability such as mobile phones, Personal Digital Assistant (PDA) or a TV set.

$$\frac{(\text{number of in-scope household with a computer})}{(\text{total number of in-scope households})} \times 100$$

vi. Internet

The Internet is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer - it may also be by mobile phone, tablet, PDA, games machine, digital TV and etc.). Internet can be accessed via a fixed or mobile network.

$$\frac{(\text{number of in-scope household with a Internet})}{(\text{total number of in-scope households})} \times 100$$

vii. Internet Activities

Internet activities are categorised as follows:

a) Access to information

- Finding information about goods or services*
- Reading or downloading online newspaper or magazines, electronic books*

b) Communication

- Participating in social networks (e.g. Facebook, WhatsApp, Instagram, Twitter etc.)*
- Sending or receiving e-mail*
- Telephoning over the Internet/ VoIP*
- Uploading self - created content to a website*
- Managing personal homepage*
- Blogging: Maintaining or adding contents to a blog*
- Accessing chat sites, blogs, newsgroups or online discussions*

c) Professional

- Looking for a job or submitting a job application*
- Participating in professional networks (e.g. LinkedIn and Xing)*
- Accessing office's computing system for the purpose of doing work from home*

d) *Civic and Politics*

- *Posting opinions or voting on civic or political issues (e.g. blogs, social networks, websites)*

e) *Other Online Services*

- *Performing tasks online to generate income*
- *Using services related to travel or travel-related accommodation*
- *Selling goods or services (via Mudah, Facebook, WhatsApp etc.)*
- *Purchasing or ordering goods or services other than e-Commerce (via Mudah, Facebook, WhatsApp etc.)*
- *Internet Banking*
- *Using software run over the Internet for editing text documents, spreadsheets or presentations*
- *Downloading software or applications*

f) *Storage Space*

- *Using storage space on the Internet to save documents, pictures, music, video or other files (e.g. Google Drive, Dropbox, Window Sky Drive, iCloud, Amazon Cloud Drive)*

g) *Learning Activities*

- *Doing a formal online course*
- *Consulting wikis (Wikipedia etc.), online encyclopedias or other websites for formal learning purposes*
- *Doing an informal online course/ assessment*

h) *e-Health*

- *Seeking health related information or services related information (e.g. on disease, injuries, nutrition etc.)*
- *Making an appointment with a health practitioner via a website*

i) *e-Government*

- *Getting information from government organisations*
- *Interacting with government organisations*

j) Entertainment

- *Listening to radio online*
- *Watching television online*
- *Downloading images, movies, videos or music; playing or downloading games*

k) e-Commerce

- *Purchasing or ordering goods or services (e-Commerce)*
- *Selling goods or services via e-commerce*

l) Safety, Online Protection and Awareness

- *Owning online security tools & adopt measures to ensure online protection*
- *Verifying the reliability of information found online*
- *Setting up effective measure (E.g: strong password, log-in attempt notifications) to protect devices and online accounts*
- *Changing privacy settings on devices, accounts or app to limit the sharing of personal data and information (E.g: name, contact information, photos)*
- *As an Internet user are you aware of the following cybercrimes: (E.g: spam, hacking, online, fraud stalking, phishing, cyber-bullying, catfish, fake news and spreading of computer virus)*

11.4.4 Selected Statistics of Malaysia from Malaysian Communications and Multimedia Commission (MCMC)

i. Broadband

The broadband penetration rate per 100 inhabitants is calculated by dividing the sum of fixed and mobile-broadband subscriptions by total number of population and multiplying by 100. Public Wi-Fi subscriptions are not taken into account.

ii. Mobile-cellular

The mobile-cellular penetration rate refers to the total subscriptions divided by total number of population and multiplied by 100. A penetration rate over 100% can occur because of multiple subscriptions.

iii. Fixed-telephone

The fixed-telephone penetration rate refers to the total subscriptions divided by total number of population and multiplied by 100.

iv. Pay TV

The pay TV penetration rate per 100 households is calculated by dividing the number of household subscriptions by the number of households and multiplied by 100.

11.8 ROUNDING OF ESTIMATES

The calculation of certain categories may not always be the same between tables due to independent rounding. However, the differences were insignificant.

Percentages shown in the tables were computed from actual absolute figures and may not always add up exactly to 100 per cent due to rounding, although the totals were shown as 100 per cent.

11.9 NOTES AND SYMBOLS

W.P.	Wilayah Persekutuan
n.a.	Not applicable
ICT	Information and Communication Technology
-	Not available
0.0	Less than half the smallest unit shown. For example, less than 0.05 per cent.

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