



KEMENTERIAN EKONOMI  
JABATAN PERANGKAAN MALAYSIA

# PENGGUNAAN ICT & E-DAGANG OLEH PERTUBUHAN

USAGE OF ICT & E-COMMERCE  
BY ESTABLISHMENT

# 2024



JABATAN PERANGKAAN MALAYSIA  
DEPARTMENT OF STATISTICS MALAYSIA



KEMENTERIAN EKONOMI  
JABATAN PERANGKAAN MALAYSIA

## PENGGUNAAN ICT DAN E-DAGANG OLEH PERTUBUHAN 2024

### USAGE OF ICT AND E-COMMERCE BY ESTABLISHMENT 2024

#### **Pemakluman**

Kepengerusian ASEAN-Malaysia 2025: Jabatan Perangkaan Malaysia (DOSM) akan mempengerusikan Jawatankuasa Sistem Statistik Komuniti ASEAN Ke-15 (ACSS15) yang bertujuan untuk memperkukuh kerjasama statistik ke arah pembangunan serantau yang mampan.

Malaysia buat julung kalinya telah berjaya menduduki kedudukan teratas di peringkat global dalam laporan dwi-tahunan Open Data Inventory (ODIN) 2024/25 yang dikeluarkan oleh Open Data Watch (ODW), mengatasi 198 negara lain. Pencapaian ini merupakan lonjakan ketara daripada kedudukan ke-67 dalam penilaian ODIN 2022/23.

Kerajaan Malaysia telah mengisytiharkan 20 Oktober sebagai Hari Statistik Negara (MyStats Day), dengan tema 'Statistik Nadi Kehidupan'. Sementara itu, Hari Statistik Dunia Keempat akan disambut pada 20 Oktober 2025 dengan tema 'Driving Change with Quality Statistics and Data for Everyone'.

OpenDOSM NextGen adalah medium yang menyediakan katalog data dan visualisasi bagi memudahkan pengguna menganalisis pelbagai data dan boleh diakses melalui portal <https://open.dosm.gov.my>.

#### **Announcement**

*ASEAN-Malaysia 2025 Chairmanship: The Department of Statistics Malaysia (DOSM) will chair the 15<sup>th</sup> ASEAN Community Statistical System Committee (ACSS15) which aims to strengthen the statistical cooperation towards sustainable regional development.*

*Malaysia has, for the first time, successfully secured the top position globally in the biennial Open Data Inventory (ODIN) 2024/25 report released by Open Data Watch (ODW), surpassing 198 other countries. This achievement marks a significant leap from its 67<sup>th</sup> position in the ODIN 2022/23 assessment.*

*The Government of Malaysia has declared October 20<sup>th</sup> as National Statistics Day (MyStats Day), with the theme 'Statistics is the Essence of Life.' Meanwhile, the Fourth World Statistics Day will be celebrated on 20<sup>th</sup> October 2025, with the theme 'Driving Change with Quality Statistics and Data for Everyone'.*

*OpenDOSM NextGen is a medium that provides data catalogue and visualisations to facilitate users' analysis and can be accessed through <https://open.dosm.gov.my>.*

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# KATA PENGANTAR

Penerbitan ini memaparkan statistik utama Penggunaan ICT dan E-Dagang oleh Pertubuhan daripada Survei E-dagang Tahunan 2024 bagi tahun rujukan 2023 mengikut sektor ekonomi. Penggunaan ICT dan E-Dagang oleh Pertubuhan meliputi semua industri dalam sektor ekonomi di Malaysia yang dikelaskan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0, selaras dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4*, 2008. Statistik yang diterbitkan dalam penerbitan ini adalah berdasarkan konsep dan garis panduan daripada *The OECD Model Survey on ICT Usage by Businesses (2nd Revision)*, 2022 yang diterbitkan oleh *Organisation for Economic Co-operation and Development (OECD)*.

Penerbitan ini mengandungi empat bahagian utama. Bahagian pertama memaparkan penemuan utama bagi keseluruhan statistik Penggunaan ICT dan E-Dagang oleh Pertubuhan diikuti bahagian kedua yang menerangkan ringkasan penemuan. Sementara itu, bahagian ketiga mengandungi jadual statistik terperinci dan bahagian seterusnya adalah berkaitan penerangan aspek teknikal seperti skop dan liputan, konsep dan definisi serta penjelasan berkaitan pembolehubah utama. Statistik ini boleh digunakan oleh agensi kerajaan, ahli ekonomi, ahli akademik, pihak swasta serta individu bagi tujuan membuat perancangan dan penggubalan dasar, analisis ekonomi, unjuran dan dapat membantu merancang pembangunan pertubuhan untuk ICT dan e-dagang.

Jabatan Perangkaan Malaysia (DOSM) merakamkan setinggi-tinggi penghargaan atas kerjasama yang diberikan oleh responden dan juga semua pihak yang telah menyumbang secara langsung dan tidak langsung dalam menjayakan penerbitan ini. Setiap maklum balas dan cadangan untuk penambahbaikan laporan ini pada masa akan datang amat dihargai.

**DATO' SRI DR. MOHD UZIR MAHIDIN**

Ketua Perangkawan Malaysia

**Julai 2025**

# PREFACE

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*This publication presents principal statistics on the Usage of ICT and E-Commerce by Establishment, which is the result of Annual Survey of E-commerce 2024 for the reference year 2023 by economic sector. The Usage of ICT and E-Commerce by Establishment encompasses all economic sectors in Malaysia classified under the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0, in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008. The statistics published in this publication are based on concepts and guidelines from The OECD Model Survey on ICT Usage by Businesses (2nd Revision), 2022, published by the Organisation for Economic Co-operation and Development (OECD).*

*This publication consists of four main parts. The first part displays the main findings of statistics for the overall Usage of ICT and E-Commerce by Establishment, followed by the second part, which contains summary of findings. Meanwhile, the third part provides detailed statistical tables, while the following part covers technical aspects, including scope and coverage, concepts and definitions, and explanations of key variables. These statistics can be used by government agencies, economists, academics, the private sector, and individuals for planning and policy formulation, economic analysis, forecasting, and can assist in business development planning, particularly in the areas of ICT and e-commerce.*

*The Department of Statistics Malaysia (DOSM) gratefully acknowledges the co-operation of the respondents as well as all parties who have contributed directly and indirectly to make this publication a success. Every feedback and suggestion towards improving future reports is highly appreciated.*

**DATO' SRI DR. MOHD UZIR MAHIDIN**

*Chief Statistician Malaysia*

**July 2025**

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# PENEMUAN UTAMA

*Main Findings*



PENGUNAAN ICT  
DAN E-DAGANG  
PERTUBUHAN 2024



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# PENEMUAN UTAMA

## PENGUNAAN ICT DAN E-DAGANG OLEH PERTUBUHAN 2024

### PENGUNAAN ICT



**Komputer**  
2023: 96.6%  
2022: 95.9%



**Internet**  
2023: 94.0%  
2022: 93.3%



**Web Presence**  
2023: 72.7%  
2022: 71.4%

### JENIS CAPAIAN INTERNET



**Jalur Lebar Tetap**  
2023: 93.0%  
2022: 92.3%



**Jalur Lebar Mudah Alih**  
2023: 78.8%  
2022: 77.9%



**Jalur Lebar Tetap & Jalur Lebar Mudah Alih**  
2023: 75.0%  
2022: 72.9%

### INFRASTRUKTUR RANGKAIAN KOMPUTER



**INTRANET**  
2023: 52.0%  
2022: 49.8%



**EXTRANET**  
2023: 25.7%  
2022: 24.0%



**LAN**  
2023: 76.9%  
2022: 75.8%



**WLAN**  
2023: 71.1%  
2022: 69.5%



**WAN**  
2023: 88.9%  
2022: 88.0%



**LAIN-LAIN**  
2023: 7.5%  
2022: 5.0%

### PENDAPATAN DAN PERBELANJAAN E-DAGANG

**Pendapatan** 2023: RM1,184.1b | YoY: 5.1%  
2022: RM1,126.9b



**Perbelanjaan** 2023: RM571.4b | YoY: 7.5%  
2022: RM531.6b

#### Tempatan

2023: RM1,053.0b YoY: 4.9%  
2022: RM1,003.5b

#### Antarabangsa

2023: RM131.1b YoY: 6.3%  
2022: RM123.4b

#### B2B

2023: RM817.1b  
2022: RM786.5b  
YoY: 3.9%

#### B2C

2023: RM336.6b  
2022: RM312.6b  
YoY: 7.7%

#### B2G

2023: RM30.4b  
2022: RM27.8b  
YoY: 9.3%

#### Tempatan

2023: RM530.6b YoY: 7.4%  
2022: RM494.2b

#### Antarabangsa

2023: RM40.8b YoY: 8.9%  
2022: RM37.5b

#### B2B

2023: RM443.4b  
2022: RM432.2b  
YoY: 2.6%

#### B2C

2023: RM112.6b  
2022: RM87.9b  
YoY: 28.1%

#### B2G

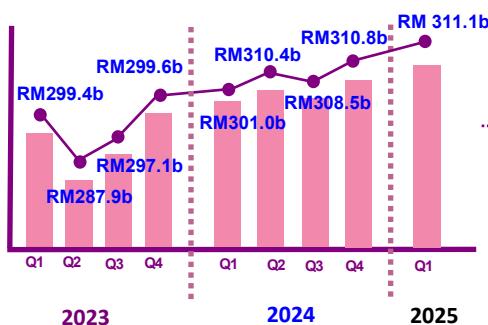
2023: RM15.4b  
2022: RM11.5b  
YoY: 33.6%

### PENDAPATAN E-DAGANG SUKU TAHUNAN



**Pendapatan E-Dagang 2023**

RM1,184.1 bilion



ST1 2023 ST2 2023 ST3 2023 ST4 2023

QoQ : 1.6% -3.8% 3.2% 0.8%  
YoY : 10.4% 2.5% 5.4% 1.7%

ST1 2024 ST2 2024 ST3 2024 ST4 2024

QoQ : 0.5% 3.1% -0.6% 0.8%  
YoY : 0.5% 7.8% 3.8% 3.7%

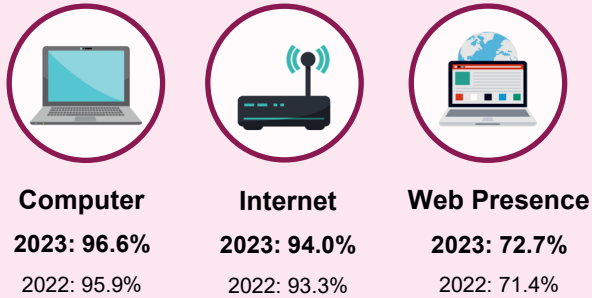
ST1 2025 QoQ: 0.1%  
YoY : 3.4%



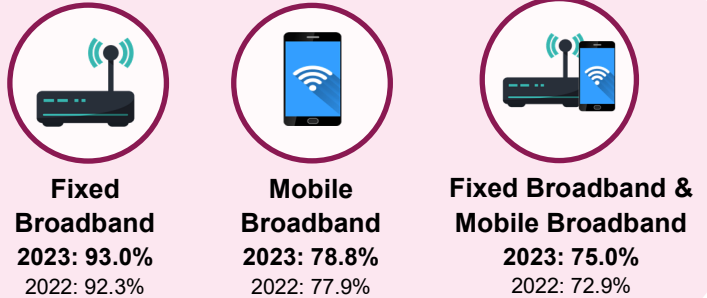
# MAIN FINDINGS

## USAGE OF ICT AND E-COMMERCE BY ESTABLISHMENT 2024

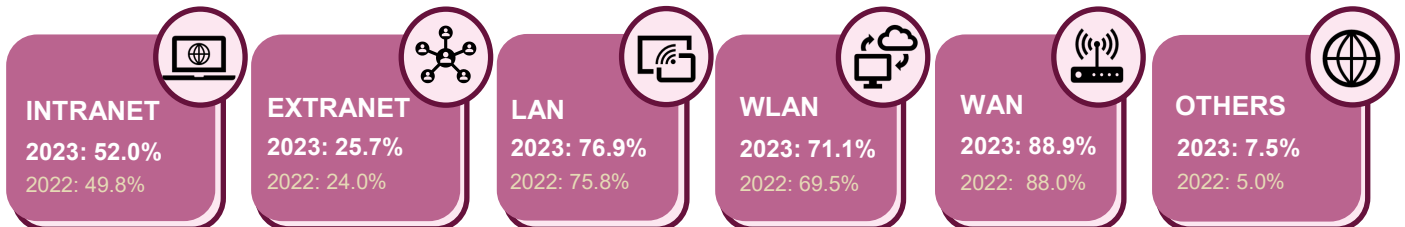
### USAGE OF ICT



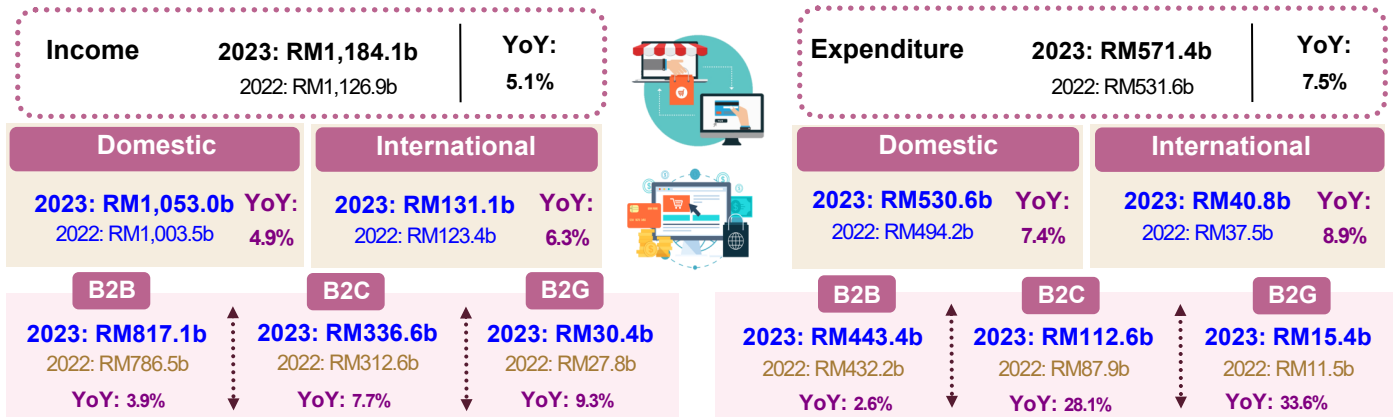
### TYPES OF INTERNET ACCESS



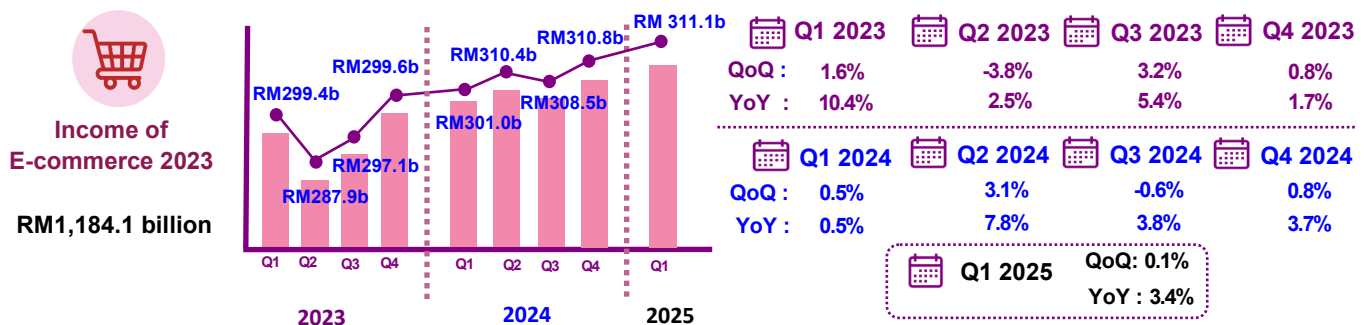
### COMPUTER NETWORK INFRASTRUCTURE



### INCOME AND EXPENDITURE OF E-COMMERCE



### QUARTERLY E-COMMERCE INCOME



Note: b - Billion  
Q - Quarter

QoQ - Percentage change quarter-on-quarter  
YoY - Percentage change year-on-year

Source: Usage of ICT and E-Commerce by Establishment 2024  
Department of Statistics Malaysia

# 2



## RINGKASAN PENEMUAN

*Summary of Findings*



PENGUNAAN ICT  
DAN E-DAGANG  
PERTUBUHAN 2024



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# RINGKASAN PENEMUAN

## PENGUNAAN ICT DAN E-DAGANG OLEH PERTUBUHAN

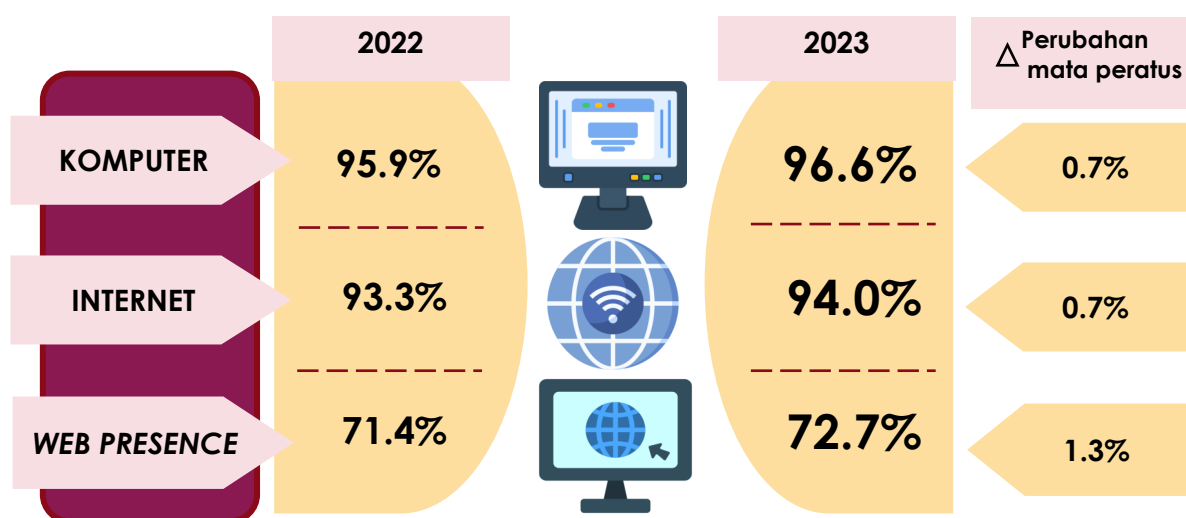
### 1. PENGENALAN

Laporan Penggunaan ICT dan E-Dagang (ICTEC) 2024 memaparkan statistik berkaitan penggunaan ICT dan E-Dagang oleh Pertubuhan di Malaysia berdasarkan tahun rujukan 2023. Penerbitan ini merangkumi lima sektor utama ekonomi termasuk Pertanian, Perlombongan & Pengkuarian, Pembuatan, Pembinaan serta Perkhidmatan.

### 2. PENGUNAAN ICT

Sebanyak 96.6 peratus pertubuhan menggunakan komputer seperti komputer peribadi, komputer riba dan *tablet* menunjukkan perubahan mata peratus sebanyak 0.7 peratus pada tahun 2023 berbanding 95.9 peratus pada tahun 2022. Perkembangan positif turut dapat dilihat dalam penggunaan internet, di mana 94.0 peratus pertubuhan telah menggunakan capaian internet, berbanding 93.3 peratus pada tahun sebelumnya. Perubahan ini sejajar dengan usaha kerajaan dalam memperluas capaian digital di dalam negara. Selain itu, peningkatan ketara juga direkodkan bagi pertubuhan yang mempunyai *web presence*, dengan 72.7 peratus berbanding 71.4 peratus pada tahun 2022, seperti yang dipaparkan dalam **Rajah 1**.

**Rajah 1: Peratus Penggunaan Komputer, Internet dan Web Presence, 2022 dan 2023**

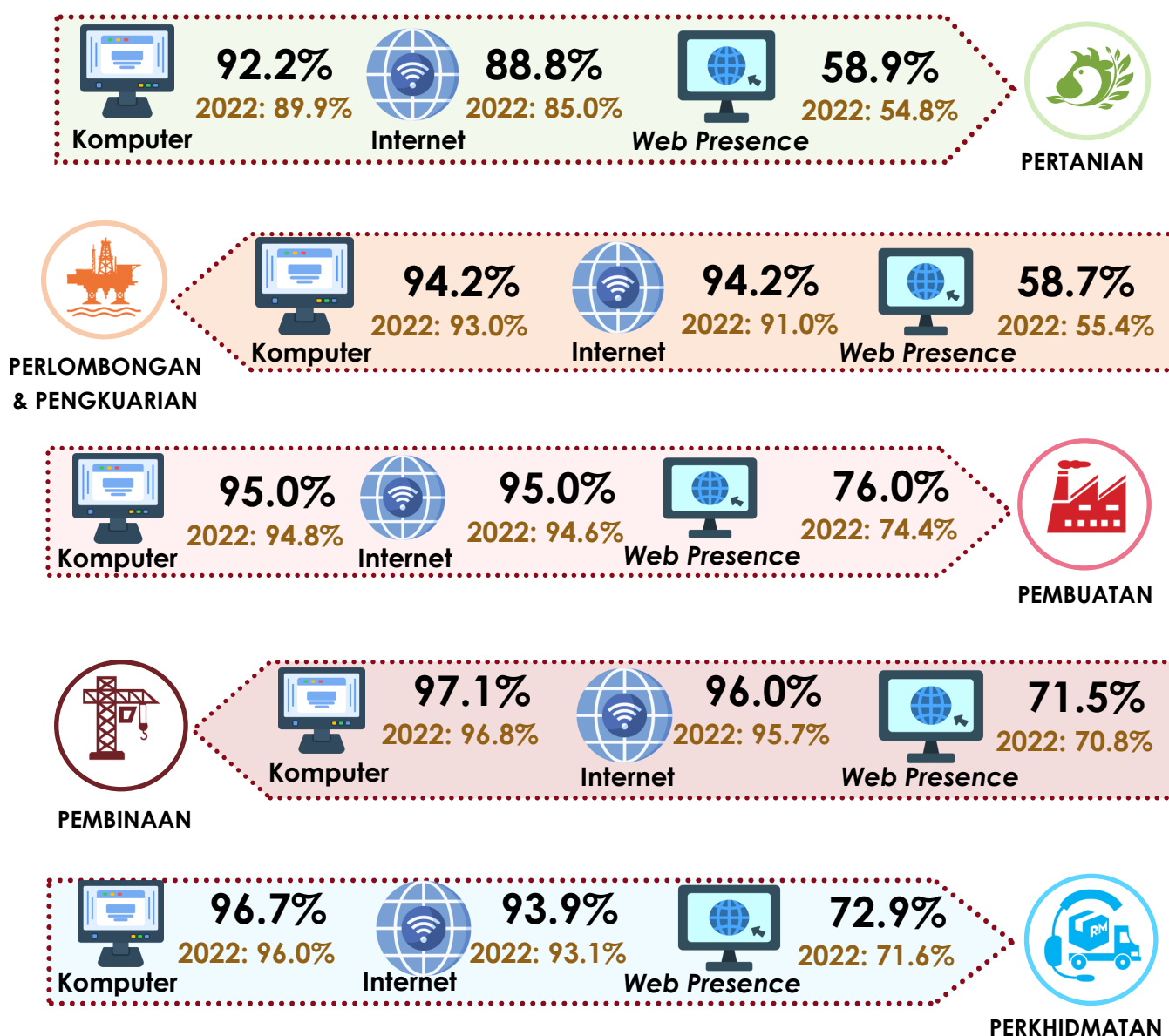


## 2.1 PENGGUNAAN ICT MENGIKUT SEKTOR

**Rajah 2** menunjukkan penggunaan komputer, internet dan *web presence* mengikut sektor pada tahun 2022 dan 2023. Sektor Pembinaan menjadi peneraju utama dengan mencatatkan kadar penggunaan komputer tertinggi iaitu 97.1 peratus berbanding 96.8 peratus pada tahun 2022. Sektor ini juga mendahului dalam penggunaan internet iaitu 96.0 peratus, meningkat daripada 95.7 peratus pada tahun sebelumnya.

Sementara itu, sektor Pembuatan mencatatkan nilai tertinggi dalam penggunaan *web presence* dengan 76.0 peratus pada tahun 2023, meningkat berbanding 74.4 peratus pada tahun 2022. Perkembangan ini mencerminkan usaha berterusan pemilik industri dalam mengadaptasi teknologi digital bagi meningkatkan daya saing pertubuhan mereka.

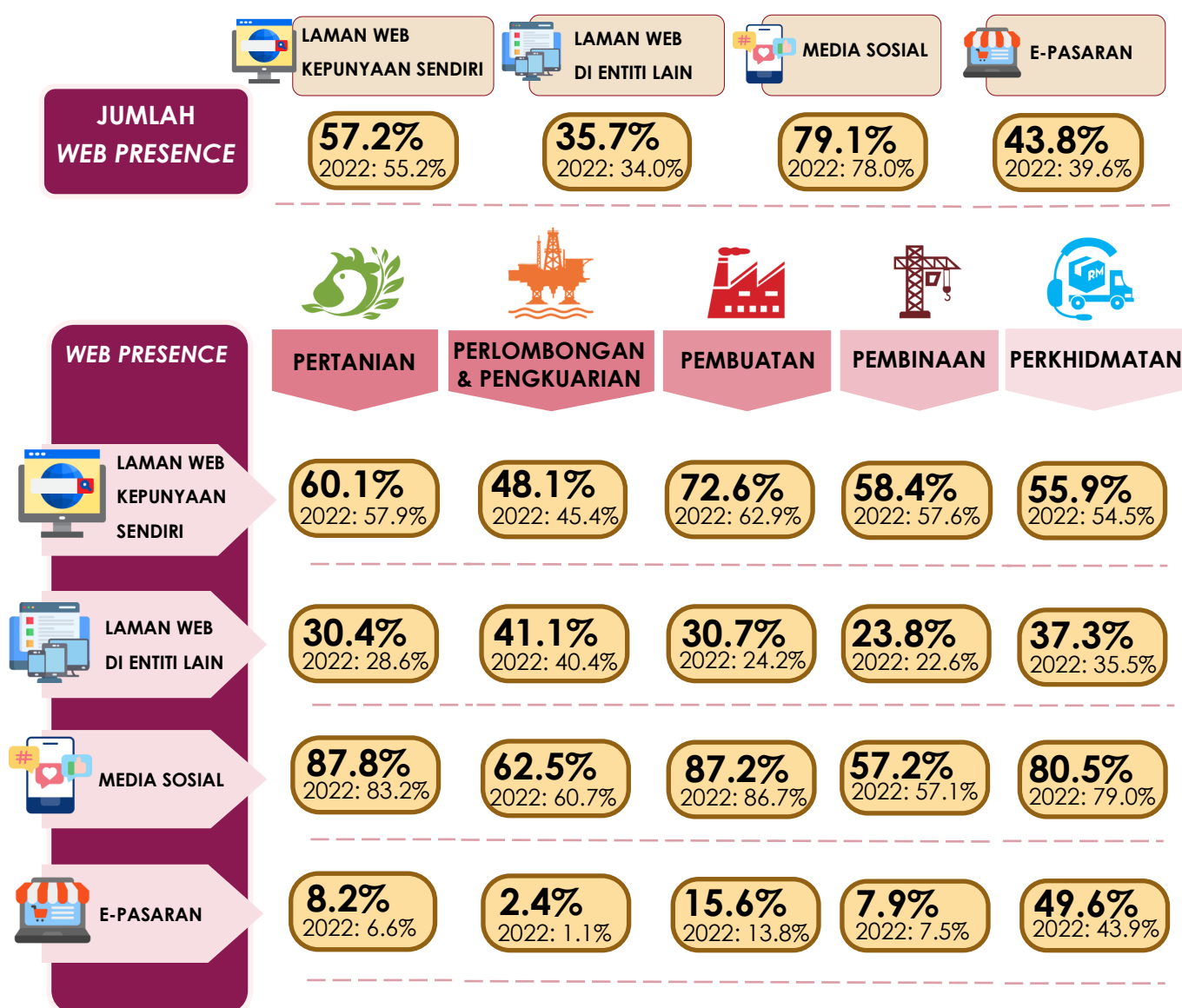
**Rajah 2: Peratus Penggunaan Komputer, Internet dan Web Presence mengikut Sektor, 2022 dan 2023**



### 3. JENIS PEMILIKAN *WEB PRESENCE* MENGIKUT SEKTOR

**Rajah 3** memperincikan jenis pemilikan *web presence* yang digunakan oleh pertubuhan mengikut sektor. Sektor Pembuatan mencatatkan peratusan tertinggi bagi penggunaan laman web kepunyaan sendiri, iaitu sebanyak 72.6 peratus. Sementara itu, sektor Perlombongan & Pengkuarian menunjukkan penggunaan tertinggi bagi laman web di entiti lain, dengan mencatatkan 41.1 peratus. Bagi sektor Pertanian, media sosial mempunyai pemilikan *web presence* dengan peratusan tertinggi iaitu 87.8 peratus. Dalam masa yang sama, sektor Perkhidmatan mencatatkan penggunaan e-pasaran yang tertinggi dengan nilai 49.6 peratus pada tahun 2023 daripada 43.9 peratus pada tahun 2022.

**Rajah 3: Jenis Pemilikan *Web Presence* mengikut Sektor, 2022 dan 2023**

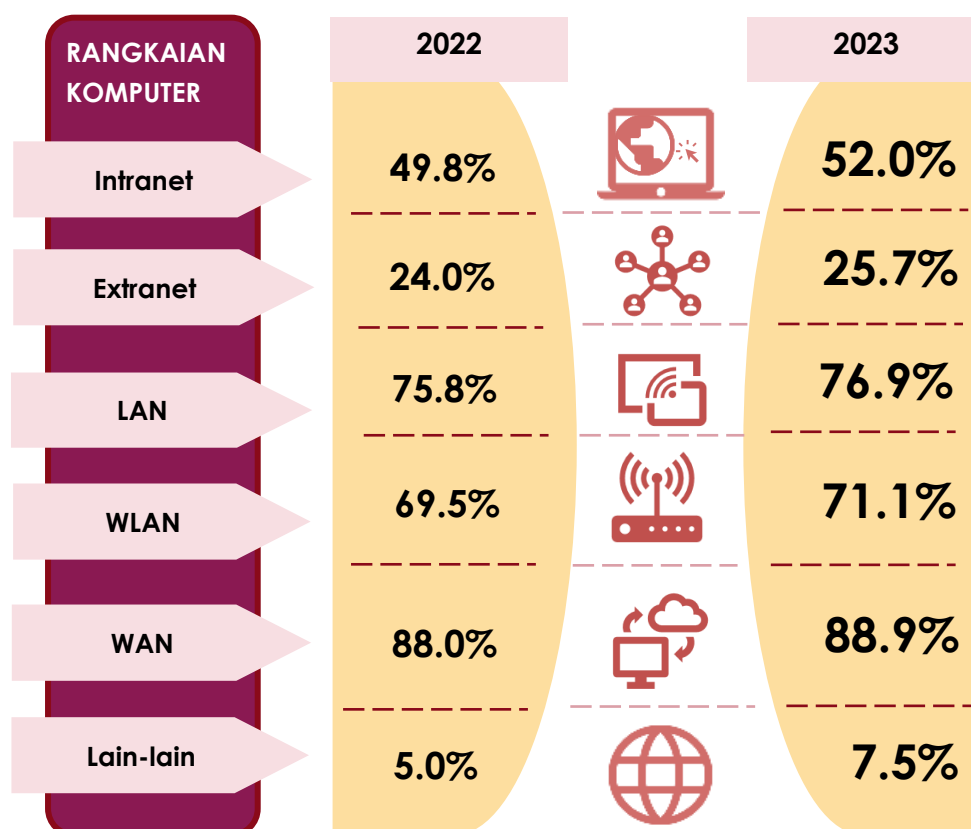


#### 4. INFRASTRUKTUR RANGKAIAN KOMPUTER

Penggunaan infastruktur rangkaian komputer pada tahun 2023 meningkat berbanding tahun sebelumnya. Penggunaan rangkaian Kawasan Luas (WAN) mencatatkan 88.9 peratus, meningkat daripada 88.0 peratus pada tahun 2022. Rangkaian Kawasan Tempatan (LAN) mencatatkan 76.9 peratus, meningkat sedikit daripada 75.8 peratus pada tahun sebelumnya. Begitu juga dengan Rangkaian Kawasan Tempatan Tanpa Wayar (WLAN) yang meningkat kepada 71.1 peratus berbanding 69.5 peratus pada 2022.

Intranet kekal relevan dengan penggunaan sebanyak 52.0 peratus pada tahun 2023, meningkat berbanding tahun sebelumnya iaitu 49.8 peratus, manakala Extranet turut mencatatkan peningkatan sebanyak 25.7 peratus pada tahun 2023 daripada 24.0 peratus pada tahun 2022. Statistik dalam **Rajah 4** memaparkan peningkatan jenis penggunaan infrastruktur rangkaian komputer bagi tahun 2022 dan 2023.

**Rajah 4: Jenis Penggunaan Infrastruktur Rangkaian Komputer, 2022 dan 2023**

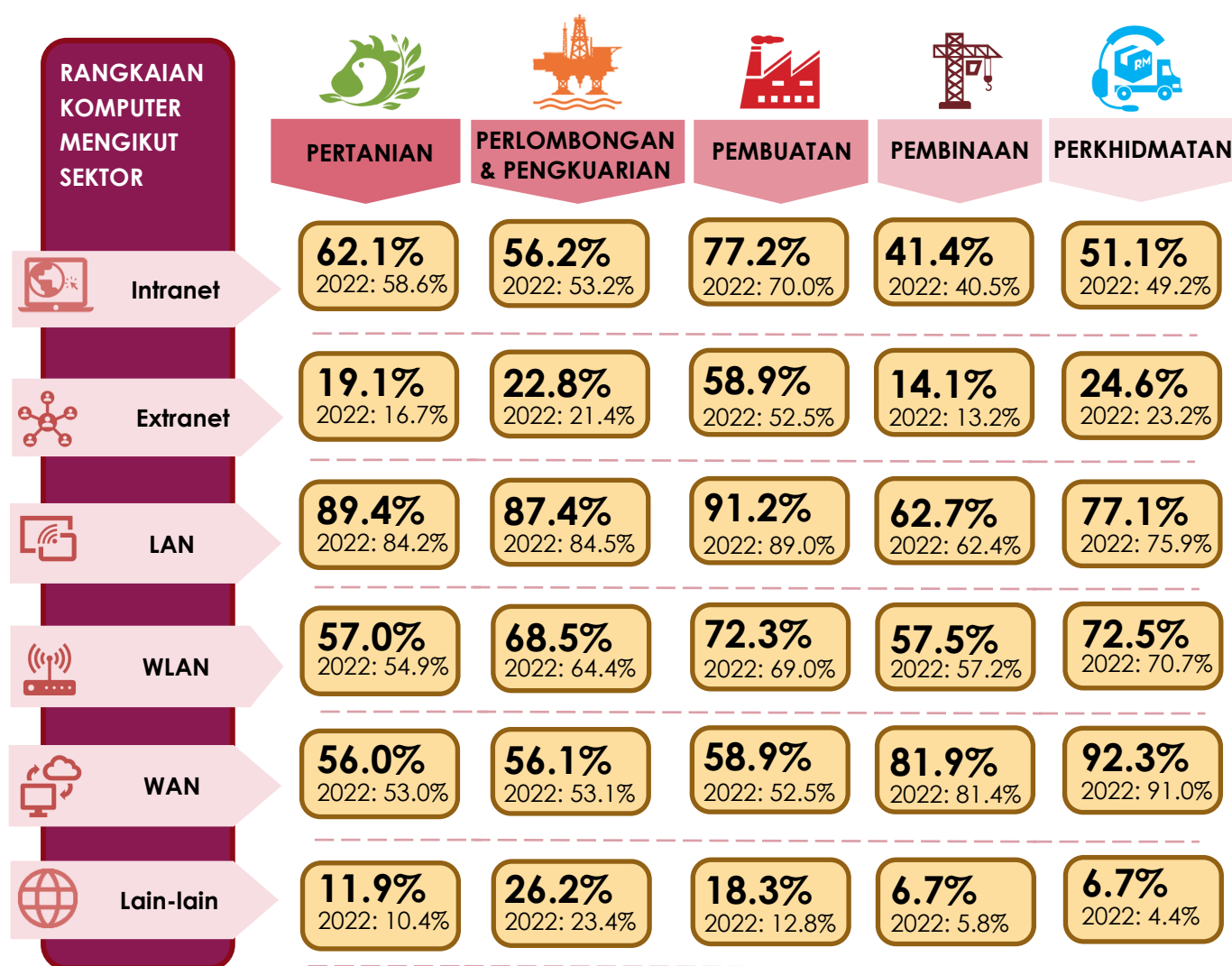


**Nofa.** “-” merujuk kepada data tidak tersedia

## 4.1 INFRASTRUKTUR RANGKAIAN KOMPUTER MENGIKUT SEKTOR

Sektor Pembuatan mencatatkan kadar tertinggi dalam penggunaan teknologi rangkaian bagi Intranet iaitu 77.2 peratus, Extranet dengan nilai 58.9 peratus dan LAN sebanyak 91.2 peratus pada **Rajah 5**. Sektor Perkhidmatan merekodkan kadar penggunaan WAN dan WLAN tertinggi iaitu masing-masing sebanyak 92.3 peratus dan 72.5 peratus. Ini menunjukkan keperluan yang semakin meningkat terhadap infrastruktur rangkaian berskala besar bagi menyokong perkhidmatan digital dan meningkatkan interaksi pelanggan. Bagi kategori infrastruktur Lain-lain, sektor Perlombongan & pengkuarian merekodkan penggunaan tertinggi sebanyak 26.2 peratus merangkumi Rangkaian Kawasan Metropolitan (MAN), Rangkaian Kawasan Storan (SAN) dan Rangkaian Kawasan Peribadi (PAN), yang masing-masing mempunyai tujuan jaringan yang berbeza berdasarkan peranan dan kapasiti.

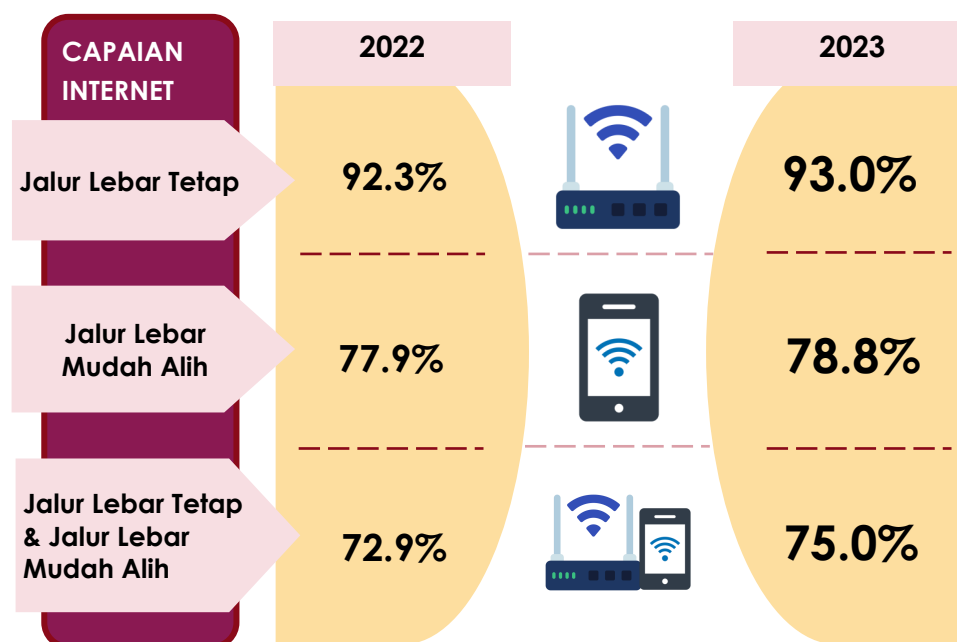
**Rajah 5: Jenis Penggunaan Infrastruktur Rangkaian Komputer mengikut Sektor, 2022 dan 2023**



## 5. JENIS CAPAIAN INTERNET

Pada tahun 2023, sebanyak 93.0 peratus pertubuhan menggunakan jalur lebar tetap, menunjukkan peningkatan berbanding 92.3 peratus pada tahun 2022. Penggunaan jalur lebar mudah alih turut meningkat kepada 78.8 peratus daripada 77.9 peratus pada tahun sebelumnya. Sementara itu, bagi kedua-dua jenis jalur lebar tetap dan mudah alih mencatatkan 75.0 peratus pada tahun 2023, meningkat daripada 72.9 peratus pada tahun 2022. Perubahan dalam jenis capaian internet ini menggambarkan peningkatan berterusan dalam penggunaan sambungan internet yang lebih fleksibel dan menyeluruh, seperti yang digambarkan dalam **Rajah 6**.

**Rajah 6: Jenis Capaian Internet, 2022 dan 2023**



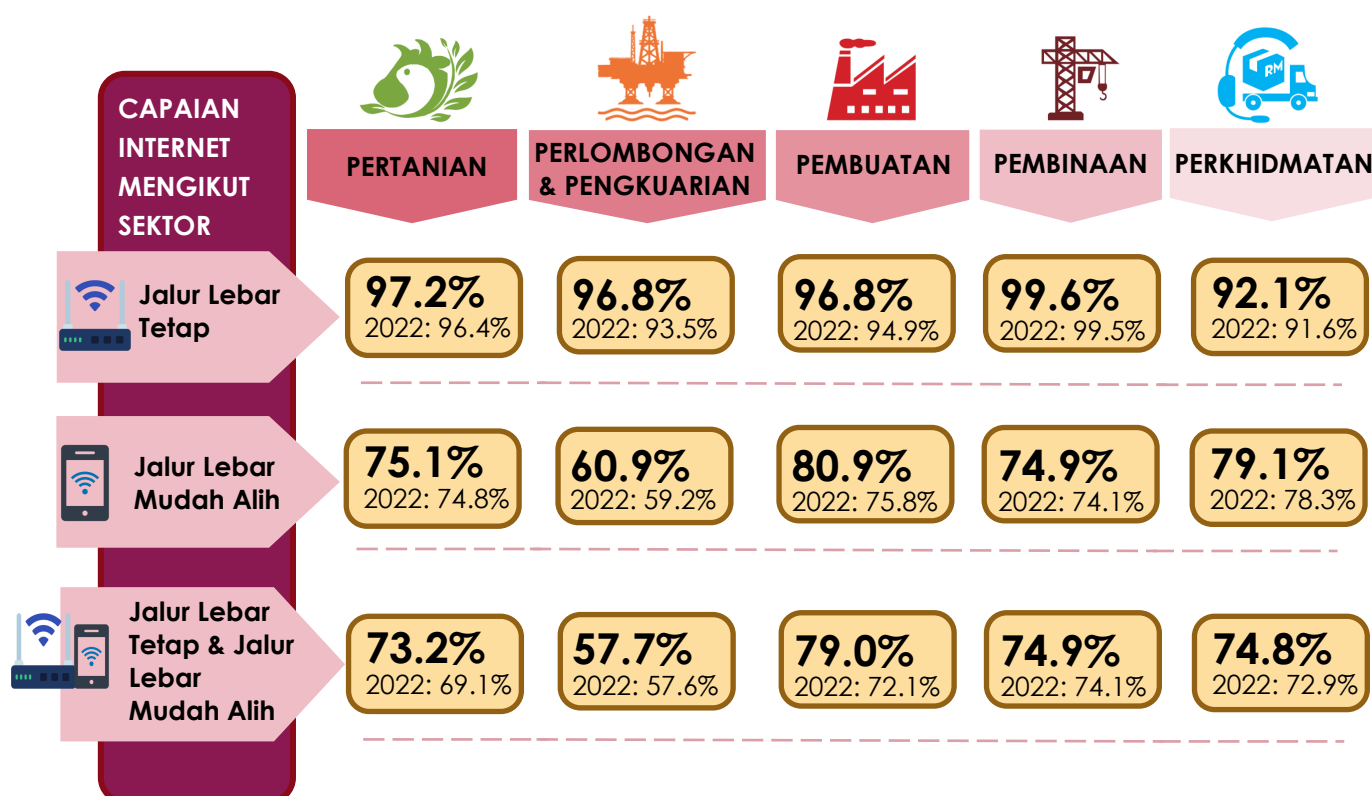
## 5.1 JENIS CAPAIAN INTERNET MENGIKUT SEKTOR

**Rajah 7** menunjukkan jenis capaian internet mengikut sektor pada tahun 2022 dan 2023. Sektor Pembinaan mencatatkan penggunaan jalur lebar tetap tertinggi pada 2023 dengan mencapai 99.6 peratus, meningkat daripada 99.5 peratus pada tahun 2022. Sektor Pertanian mencatatkan peningkatan 97.2 peratus daripada 96.4 peratus tahun sebelumnya.

Bagi jalur lebar mudah alih, sektor Pembuatan mencatatkan kadar tertinggi pada tahun 2023 iaitu 80.9 peratus meningkat daripada 75.8 peratus pada tahun 2022. Sektor Perkhidmatan mencatatkan 79.1 peratus berbanding 78.3 peratus pada tahun sebelumnya.

Sektor Pembuatan mencatatkan nilai tertinggi dengan 79.0 peratus berbanding 72.1 peratus pada tahun sebelumnya bagi penggunaan jalur lebar tetap dan jalur lebar mudah alih. Selain itu, sektor Pembinaan mencatatkan peningkatan 74.9 peratus pada tahun 2023 daripada tahun sebelumnya 2022, dengan nilai 74.1 peratus.

**Rajah 7: Jenis Capaian Internet mengikut Sektor, 2022 dan 2023**



## 6. TUJUAN PENGGUNAAN INTERNET

Penggunaan internet oleh pertubuhan mengikut tujuan pada tahun 2022 dan 2023 dicatatkan pada **Rajah 8**. Tujuan utama penggunaan internet adalah untuk menghantar atau menerima e-mel, mencatatkan 96.3 peratus pada tahun 2023 meningkat daripada 95.7 peratus pada tahun 2022. Penggunaan bagi perbankan melalui internet mencatat 91.4 peratus pada tahun 2023 berbanding 90.2 peratus pada tahun sebelumnya, menunjukkan penerimaan meluas terhadap transaksi kewangan digital.

**Rajah 8: Tujuan Penggunaan Internet oleh Pertubuhan, 2022 dan 2023**

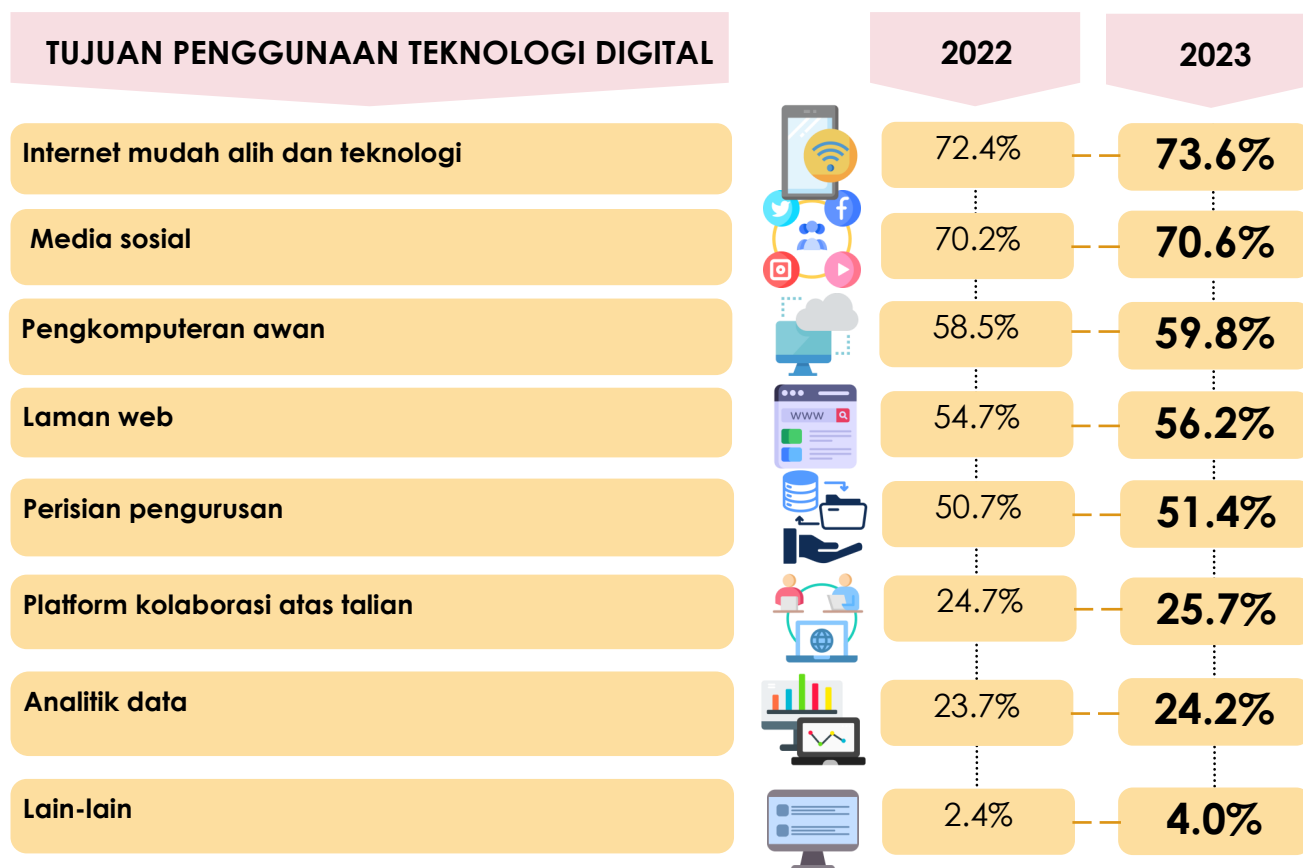
| TUJUAN PENGGUNAAN INTERNET                                |                                                                                     | 2022  | 2023         |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------|-------|--------------|
| Menghantar atau menerima e-mel                            |    | 95.7% | <b>96.3%</b> |
| Perbankan melalui internet                                |    | 90.2% | <b>91.4%</b> |
| Mendapatkan maklumat berkenaan barangan atau perkhidmatan |   | 81.6% | <b>82.4%</b> |
| Menghantar informasi atau pesanan dengan segera           |  | 81.2% | <b>81.9%</b> |
| Telefon melalui internet                                  |  | 75.1% | <b>76.3%</b> |
| Mendapatkan maklumat daripada organisasi kerajaan         |  | 68.6% | <b>69.3%</b> |
| Berhubung dengan organisasi kerajaan                      |  | 63.2% | <b>63.8%</b> |
| Pemberitahuan jawatan kosong dalaman atau luaran          |  | 53.1% | <b>53.9%</b> |
| Penyediaan perkhidmatan pelanggan                         |  | 46.8% | <b>47.9%</b> |
| Mengakses perkhidmatan kewangan yang lain                 |  | 42.3% | <b>43.9%</b> |
| Penghantaran produk secara atas talian                    |  | 36.8% | <b>37.8%</b> |
| Latihan untuk kakitangan (aplikasi e-pembelajaran)        |  | 24.2% | <b>25.0%</b> |
| Lain-lain                                                 |  | 11.6% | <b>12.4%</b> |

## 7. PENGGUNAAN TEKNOLOGI DIGITAL

**Rajah 9** menunjukkan penggunaan teknologi digital oleh pertubuhan pada tahun 2022 dan 2023. Internet mudah alih dan teknologi mencatatkan penggunaan teknologi digital tertinggi iaitu 73.6 peratus meningkat daripada 72.4 peratus pada tahun sebelumnya. Media sosial turut menunjukkan peningkatan dengan 70.6 peratus pada tahun 2023 berbanding tahun 2022 yang merekodkan 70.2 peratus. Pengkomputeran awam meningkat dengan kadar penggunaan sebanyak 59.8 peratus berbanding 58.5 peratus pada tahun sebelumnya.

Penggunaan laman web mencatatkan peningkatan 56.2 peratus berbanding tahun sebelumnya iaitu 54.7 peratus, manakala perisian pengurusan mencapai peningkatan dengan 51.4 peratus pada tahun 2023 berbanding 50.7 peratus pada tahun 2022.

**Rajah 9: Penggunaan Teknologi Digital, 2022 dan 2023**

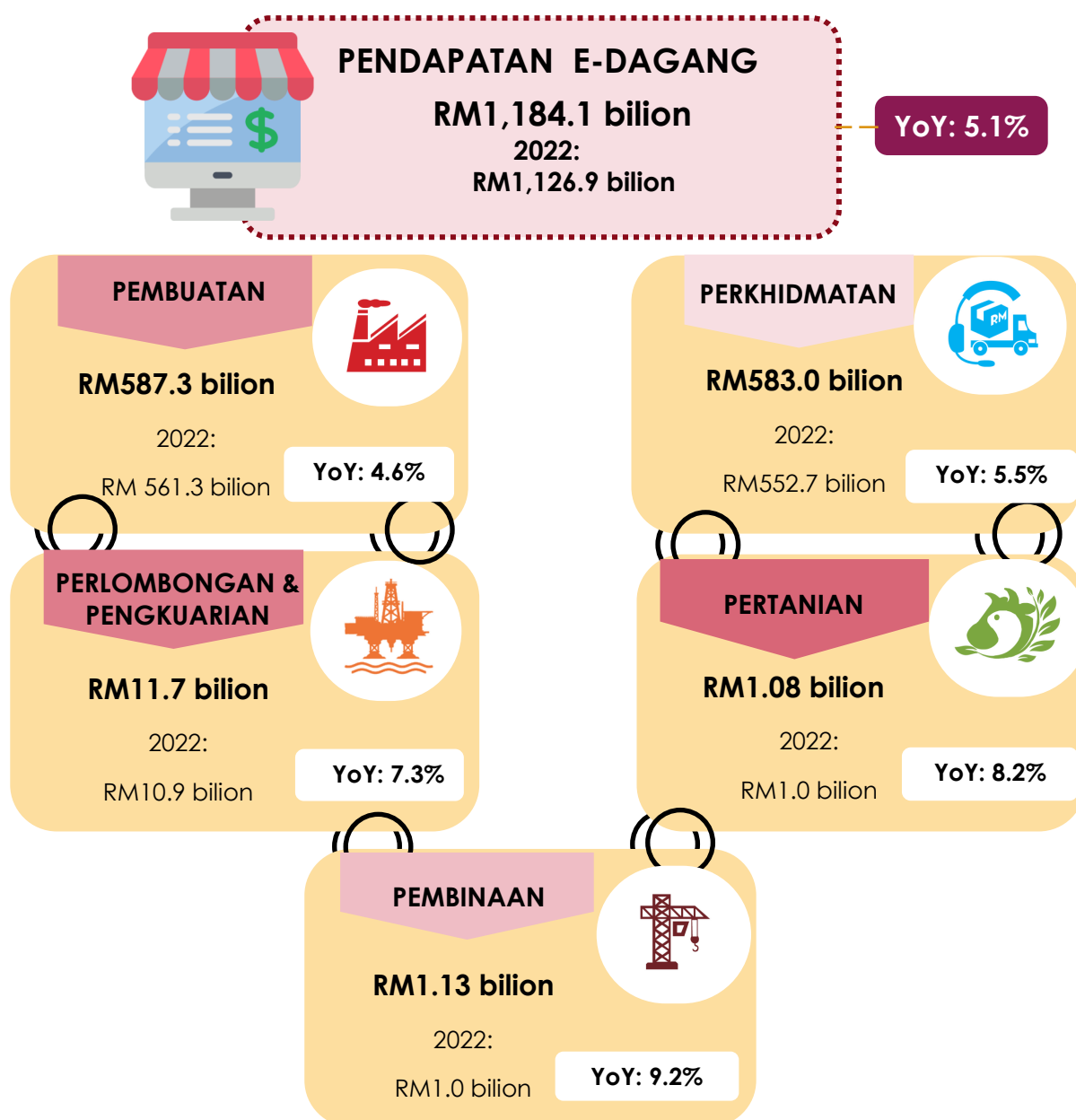


## 8. PENDAPATAN E-DAGANG

### 8.1 PENDAPATAN E-DAGANG MENGIKUT SEKTOR

Nilai pendapatan transaksi e-dagang terus mencatatkan pertumbuhan positif dengan nilai RM1,184.1 bilion pada tahun 2023 berbanding RM1,126.9 bilion pada tahun 2022, dengan perubahan peratusan tahun ke tahun (YoY) yang meningkat sebanyak 5.1 peratus. Sektor Pembuatan merekodkan RM587.3 bilion, meningkat sebanyak 4.6 peratus berbanding tahun 2022. Ini diikuti oleh sektor Perkhidmatan yang mencatatkan peningkatan RM583.0 bilion pada tahun 2023 daripada RM552.7 bilion pada tahun 2022 dengan pertumbuhan sebanyak 5.5 peratus seperti yang ditunjukkan dalam **Rajah 10**.

**Rajah 10: Pendapatan E-Dagang, 2022 dan 2023**



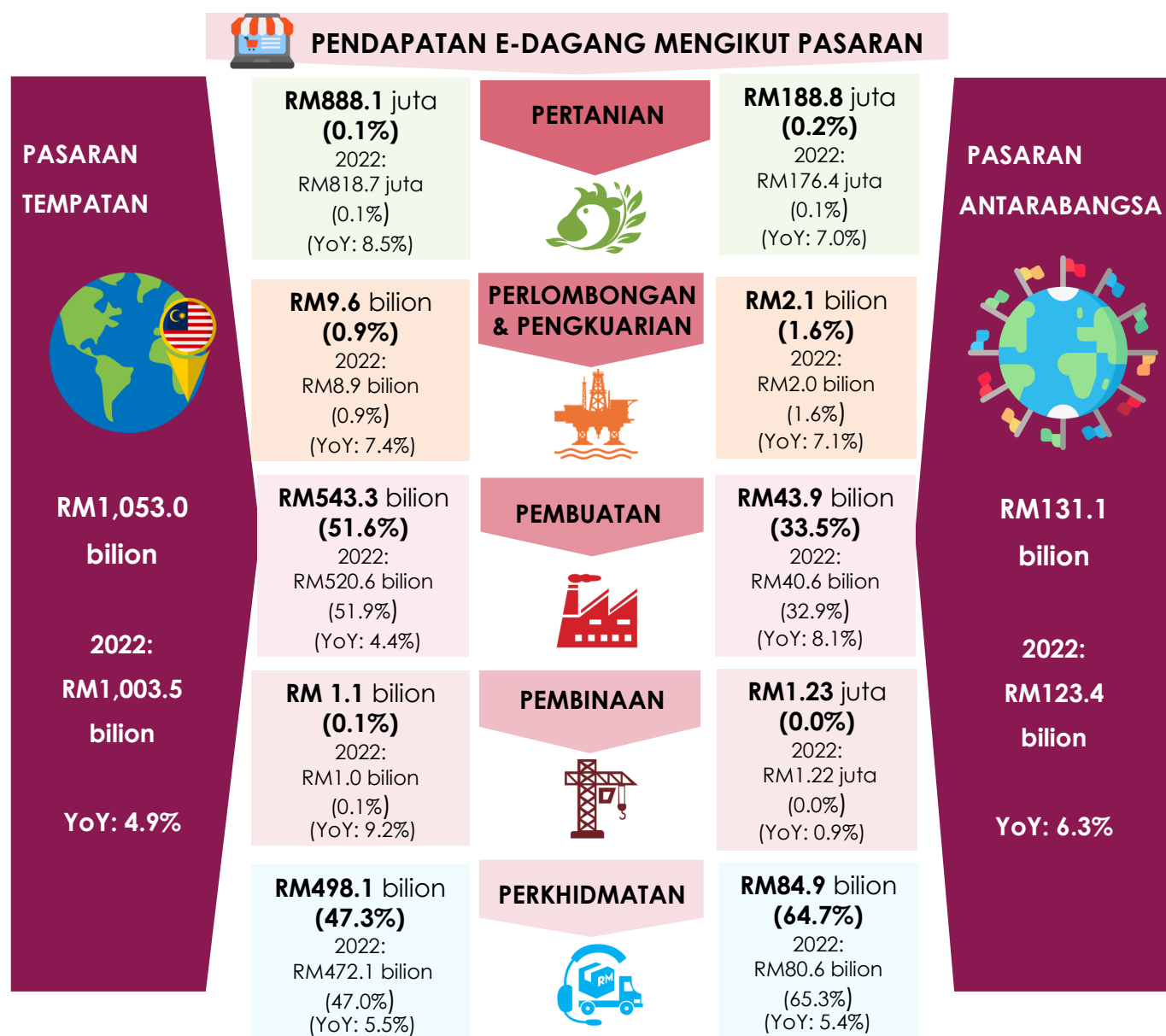
**Nota.**

YoY - Perubahan peratusan tahun ke tahun

## 8.2 PENDAPATAN E-DAGANG MENGIKUT JENIS PASARAN

Pendapatan daripada transaksi e-dagang di Malaysia didominasi oleh pasaran tempatan yang mencatatkan peningkatan jumlah sebanyak RM1,053.0 bilion pada tahun 2023, berbanding RM1,003.5 bilion pada tahun 2022 dengan pertumbuhan positif 4.9 peratus. Seterusnya, pasaran antarabangsa menyumbang RM131.1 bilion meningkat daripada RM123.4 bilion pada tahun 2022 mencatatkan pertumbuhan sebanyak 6.3 peratus. Dalam pasaran tempatan, sektor Pembuatan menjadi peneraju utama dengan pendapatan mencecah RM543.3 bilion merekodkan pertumbuhan sebanyak 4.4 peratus. Sementara itu, sektor Perkhidmatan menyumbang pendapatan tertinggi iaitu RM84.9 bilion dengan 5.4 peratus berbanding tahun 2022 bagi pasaran antarabangsa seperti di dalam **Rajah 11**.

**Rajah 11: Pendapatan E-Dagang mengikut Jenis Pasaran, 2022 dan 2023**



**Nota.** (%) - Peratus sumbangan

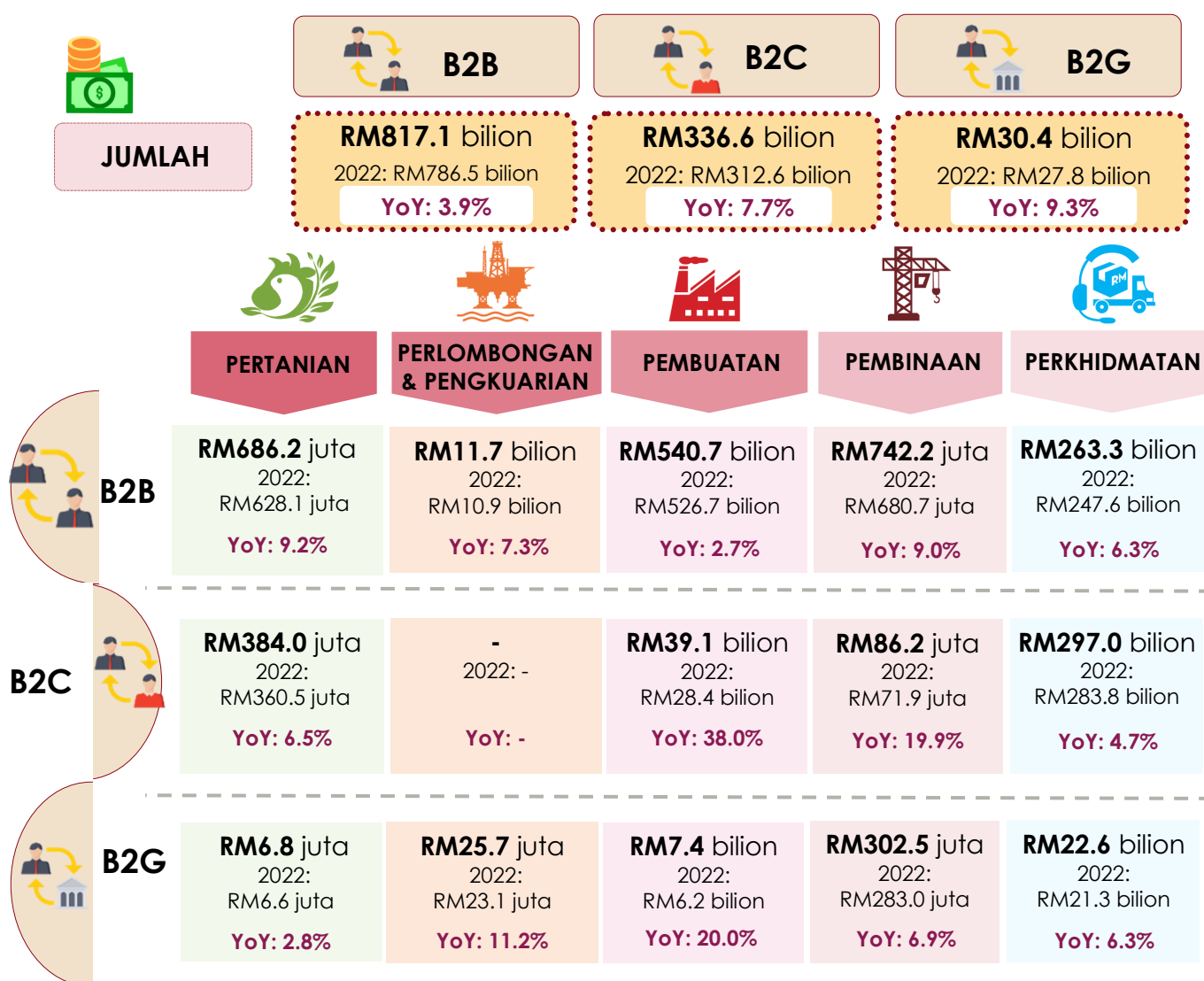
YoY - Perubahan peratusan tahun ke tahun

### 8.3 PENDAPATAN E-DAGANG MENGIKUT JENIS PELANGGAN

Jumlah pendapatan e-dagang mengikut jenis pelanggan bagi kategori *Business to Business* (B2B) kekal sebagai penyumbang utama dengan jumlah RM817.1 bilion, dengan kenaikan peratus perubahan tahunan sebanyak 3.9 peratus. Sementara itu, *Business to Consumer* (B2C) mencatat pendapatan berjumlah RM336.6 bilion mencapai kenaikan 7.7 peratus berbanding pada tahun sebelumnya. Bagi kategori *Business to Government* (B2G) menunjukkan peningkatan sebanyak RM30.4 bilion dengan pertumbuhan 9.3 peratus berbanding pada tahun 2022.

Sektor Pembuatan kekal sebagai penyumbang tertinggi bagi B2B dengan pendapatan sebanyak RM540.7 bilion, menunjukkan pertumbuhan positif 2.7 peratus berbanding tahun 2022. Sementara itu, sektor Perkhidmatan mendominasi B2C dan B2G iaitu masing-masing mencatatkan RM297.1 bilion dengan pertumbuhan 4.7 peratus dan RM22.7 bilion merekodkan pertumbuhan positif, 6.4 peratus bagi tahun 2023 seperti di **Rajah 12**.

**Rajah 12: Pendapatan E-Dagang mengikut Jenis Pelanggan, 2022 dan 2023**



**Nota.** “-” merujuk kepada data tidak tersedia

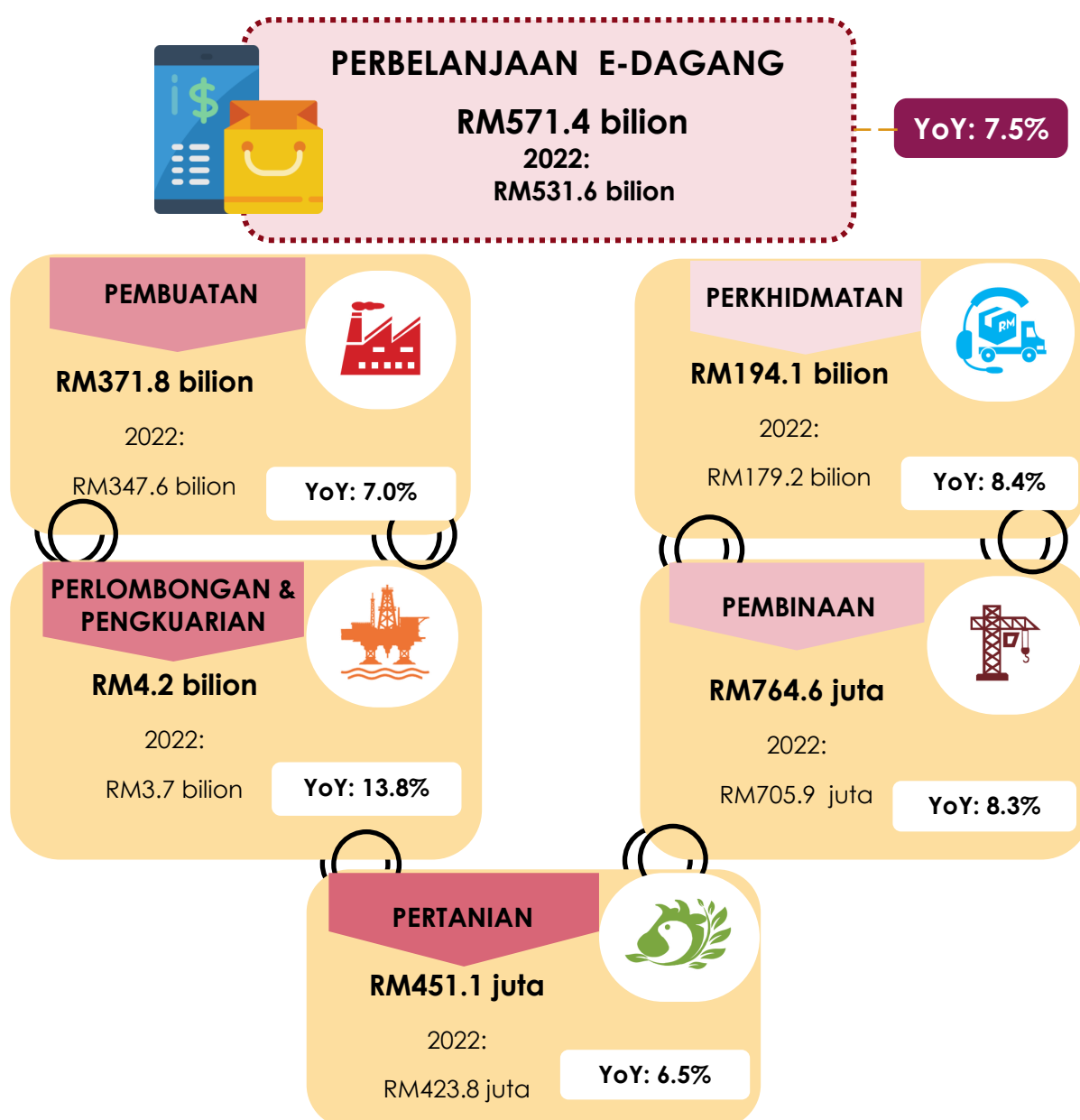
YoY - Perubahan peratusan tahun ke tahun

## 9. PERBELANJAAN E-DAGANG

### 9.1 PERBELANJAAN E-DAGANG MENGIKUT SEKTOR

Pada tahun 2023, perbelanjaan melalui transaksi e-dagang di Malaysia mencatatkan peningkatan sebanyak RM571.4 bilion, berbanding RM531.6 bilion pada tahun 2022, dengan perubahan peratusan tahun ke tahun sebanyak 7.5 peratus. Sektor Pembuatan mencatatkan perbelanjaan e-dagang tertinggi dengan nilai RM371.8 bilion pada tahun 2023 berbanding tahun 2022 sebanyak RM347.6 bilion dengan pertumbuhan 7.0 peratus. Ini diikuti oleh sektor Perkhidmatan dengan perbelanjaan berjumlah RM194.1 bilion berbanding tahun sebelumnya RM179.2 bilion dengan pertumbuhan tahunan 8.4 peratus seperti yang ditunjukkan dalam Rajah 13.

Rajah 13: Perbelanjaan E-Dagang, 2022 dan 2023



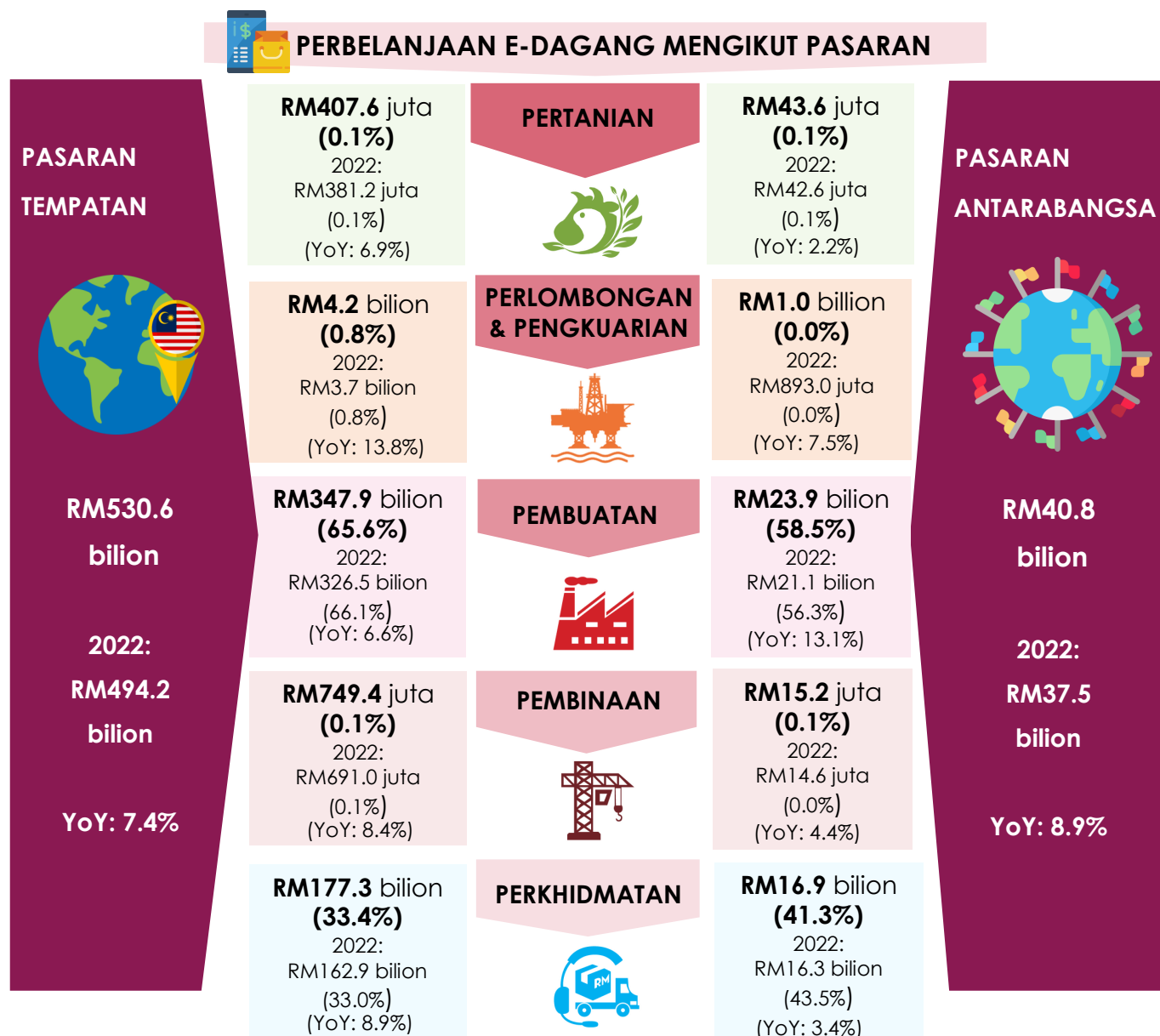
**Nota.**

YoY - Perubahan peratusan tahun ke tahun

## 9.2 PERBELANJAAN E-DAGANG MENGIKUT JENIS PASARAN

Perbelanjaan e-dagang di Malaysia didominasi oleh pasaran tempatan yang mencatatkan jumlah sebanyak RM530.6 bilion pada tahun 2023 berbanding RM494.2 bilion tahun 2022, menunjukkan pertumbuhan tahunan sebanyak 7.4 peratus. Sementara itu, pasaran antarabangsa menyumbang RM40.8 bilion meningkat berbanding RM37.5 bilion dengan pertumbuhan tahunan sebanyak 8.9 peratus. Dalam pasaran tempatan, sektor Pembuatan muncul sebagai penyumbang utama dengan perbelanjaan sebanyak RM347.9 bilion dengan pertumbuhan sebanyak 6.6 peratus berbanding tahun 2022 iaitu RM326.5 bilion. Bagi pasaran antarabangsa, sektor Pembuatan masih kekal sebagai pemacu utama dengan perbelanjaan sebanyak RM23.9 bilion berbanding RM21.1 bilion pada tahun 2022 dengan pertumbuhan sebanyak 13.1 peratus seperti di dalam **Rajah 14**.

**Rajah 14: Perbelanjaan E-Dagang mengikut Jenis Pasaran, 2022 dan 2023**



**Nota.**

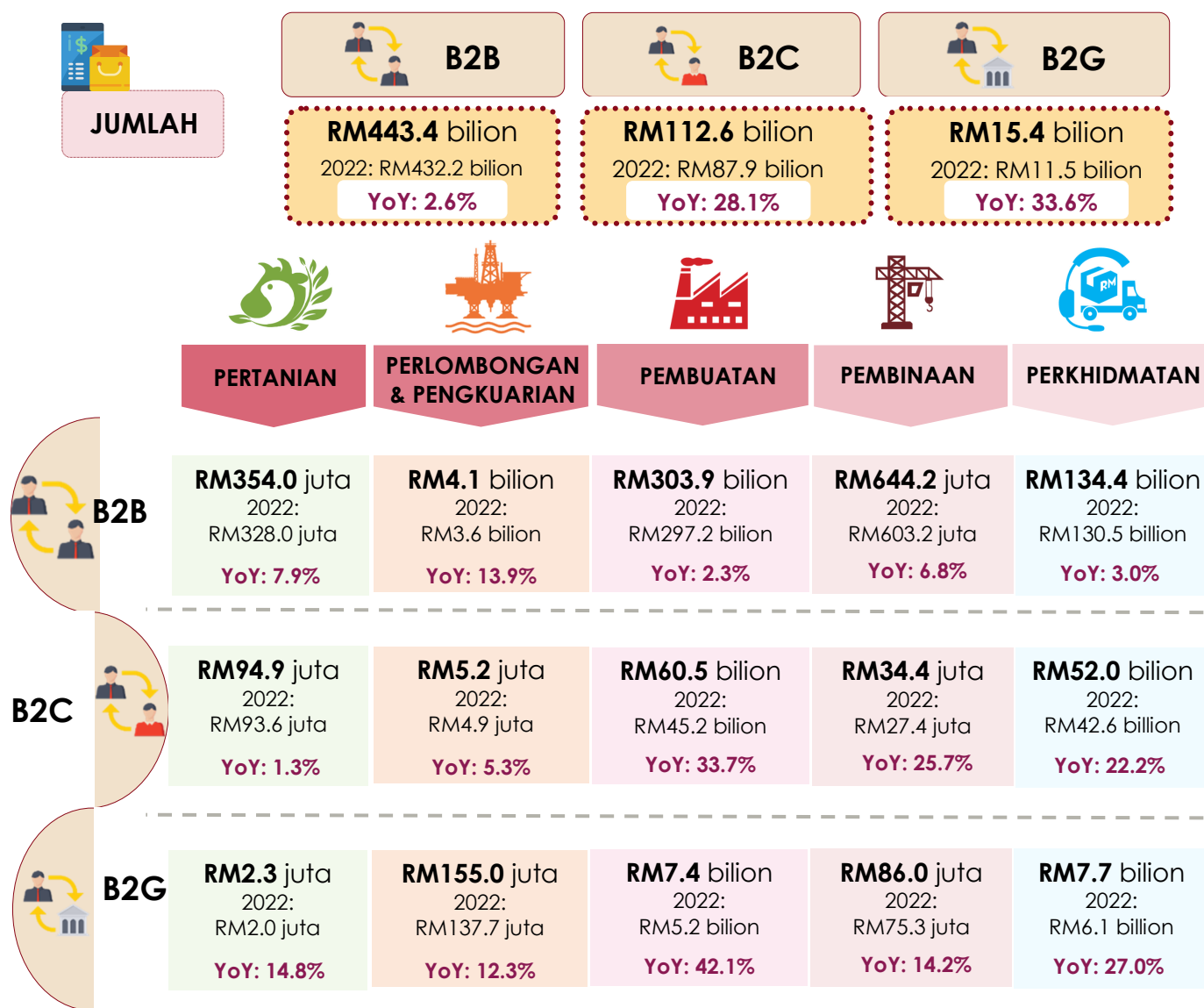
(%) - Peratus sumbangan

YoY - Perubahan peratusan tahun ke tahun

### 9.3 PERBELANJAAN E-DAGANG MENGIKUT JENIS PELANGGAN

Pada tahun 2023, perbelanjaan e-dagang mengikut jenis pelanggan telah mencatatkan kategori B2B kekal sebagai penyumbang utama dengan jumlah RM443.4 bilion, menunjukkan pertumbuhan tahunan sebanyak 2.6 peratus. Bagi kategori B2C merekodkan RM112.6 bilion dengan pertumbuhan tahunan sebanyak 28.1 peratus manakala kategori B2G menyumbang RM15.4 bilion dengan pertumbuhan tahunan sebanyak 33.6 peratus. Bagi kategori B2B, sektor Pembuatan kekal menjadi penyumbang utama kepada perbelanjaan e-dagang dengan jumlah RM303.9 bilion dengan pertumbuhan tahunan 2.3 peratus. Seterusnya, sektor Pembuatan juga mencatatkan nilai tertinggi sebanyak RM60.5 billion bagi kategori B2C, dengan pertumbuhan tahunan sebanyak 33.7 peratus. Manakala kategori B2G, sektor Perkhidmatan mendominasi sebanyak RM7.7 bilion dengan pertumbuhan tahunan sebanyak 27.0 peratus seperti di dalam **Rajah 15**.

**Rajah 15: Perbelanjaan E-Dagang mengikut Jenis Pelanggan, 2022 dan 2023**



**Nota.** “-” merujuk kepada data tidak tersedia

YoY - Perubahan peratusan tahun ke tahun

# SUMMARY OF FINDINGS

## USAGE OF ICT AND E-COMMERCE BY ESTABLISHMENT

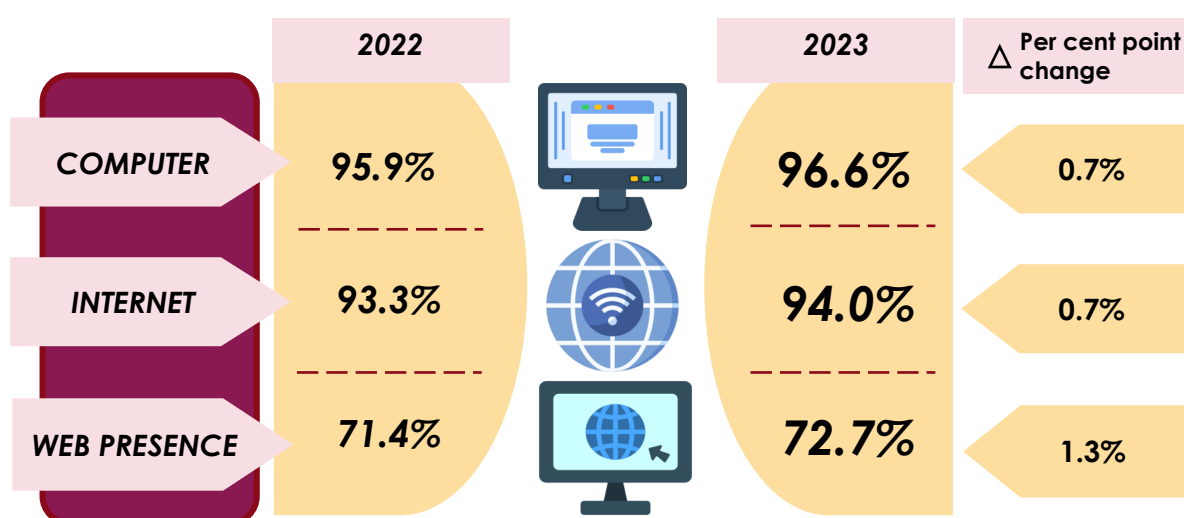
### 1. INTRODUCTION

*Usage of ICT and E-Commerce (ICTEC) by Establishment 2024 publication highlights the statistics on Usage of ICT and E-Commerce in Malaysia based on the reference year 2023. This publication encompasses five key economic sectors which include Agriculture, Mining & Quarrying, Manufacturing, Construction and Services.*

### 2. USAGE OF ICT

*There were 96.6 per cent of establishments in 2023 used computers including personal computers, laptops and tablets, indicating a 0.7 per cent point change increase compared to 95.9 per cent in 2022. A similar improvement was seen in usage of internet, with 94.0 per cent of establishments have internet access, compared to 93.3 per cent from a year before. These change were in line with government efforts to improve digital access across the country. Additionally, a significant increase was recorded in establishments with web presence, which rose to 72.7 per cent from 71.4 per cent in 2022, as illustrated in **Figure 1**.*

**Figure 1: Usage of Computer, Internet and Web Presence, 2022 and 2023**

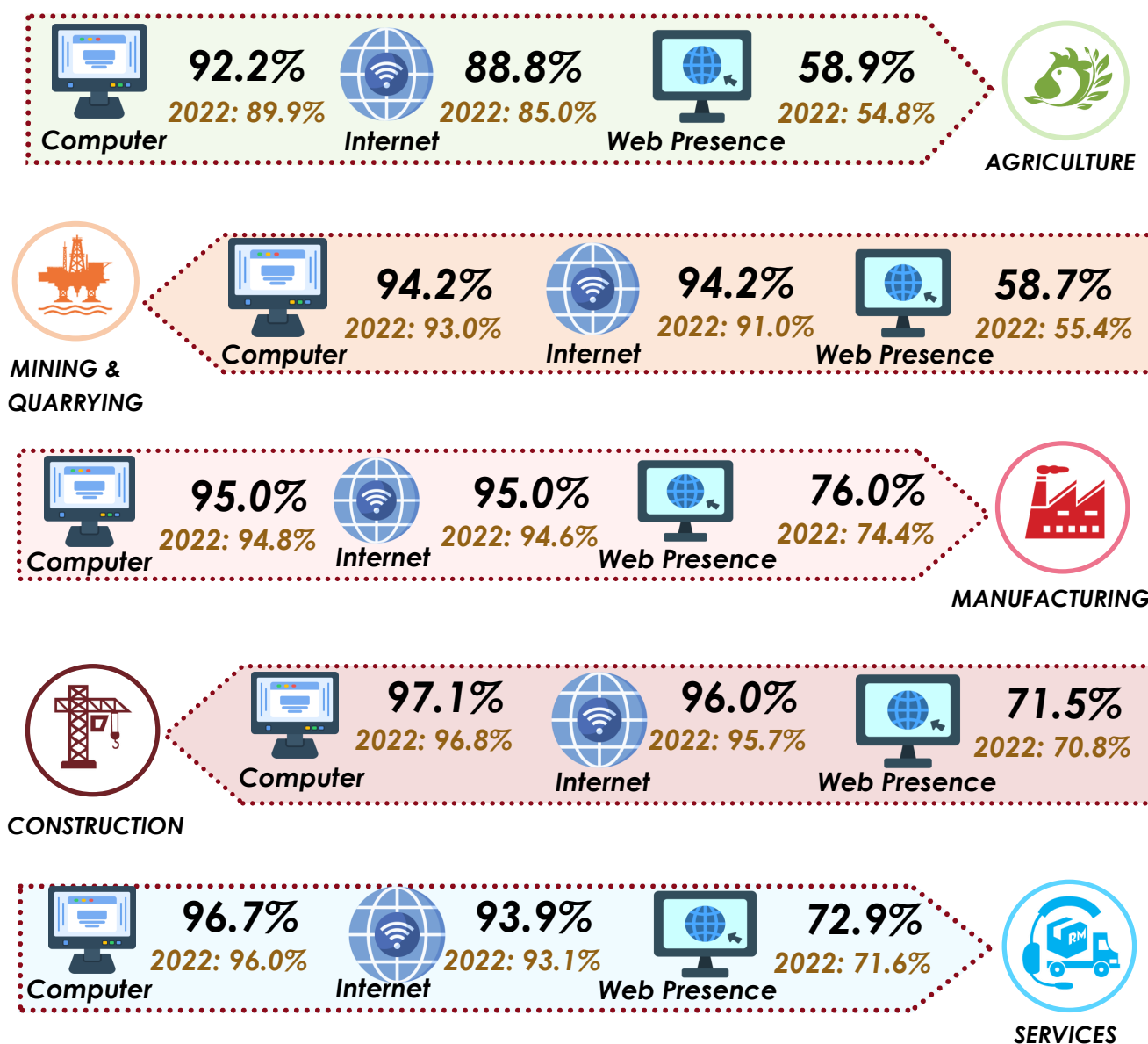


## 2.1 USAGE OF ICT BY SECTOR

**Figure 2** illustrates the usage of computer, internet, and web presence by sector in year 2022 and 2023. The Construction sector recorded the highest rate of computer usage with 97.1 per cent, rose from 96.8 per cent in 2022. This sector also led in internet usage at 96.0 per cent, which increased from 95.7 per cent from previous year.

Meanwhile, the Manufacturing sector reported the highest web presence with 76.0 per cent in 2023, rising from 74.4 per cent in 2022. This growth reflects industry owners' sustained efforts to adopt digital technologies, enhancing their establishments' competitiveness.

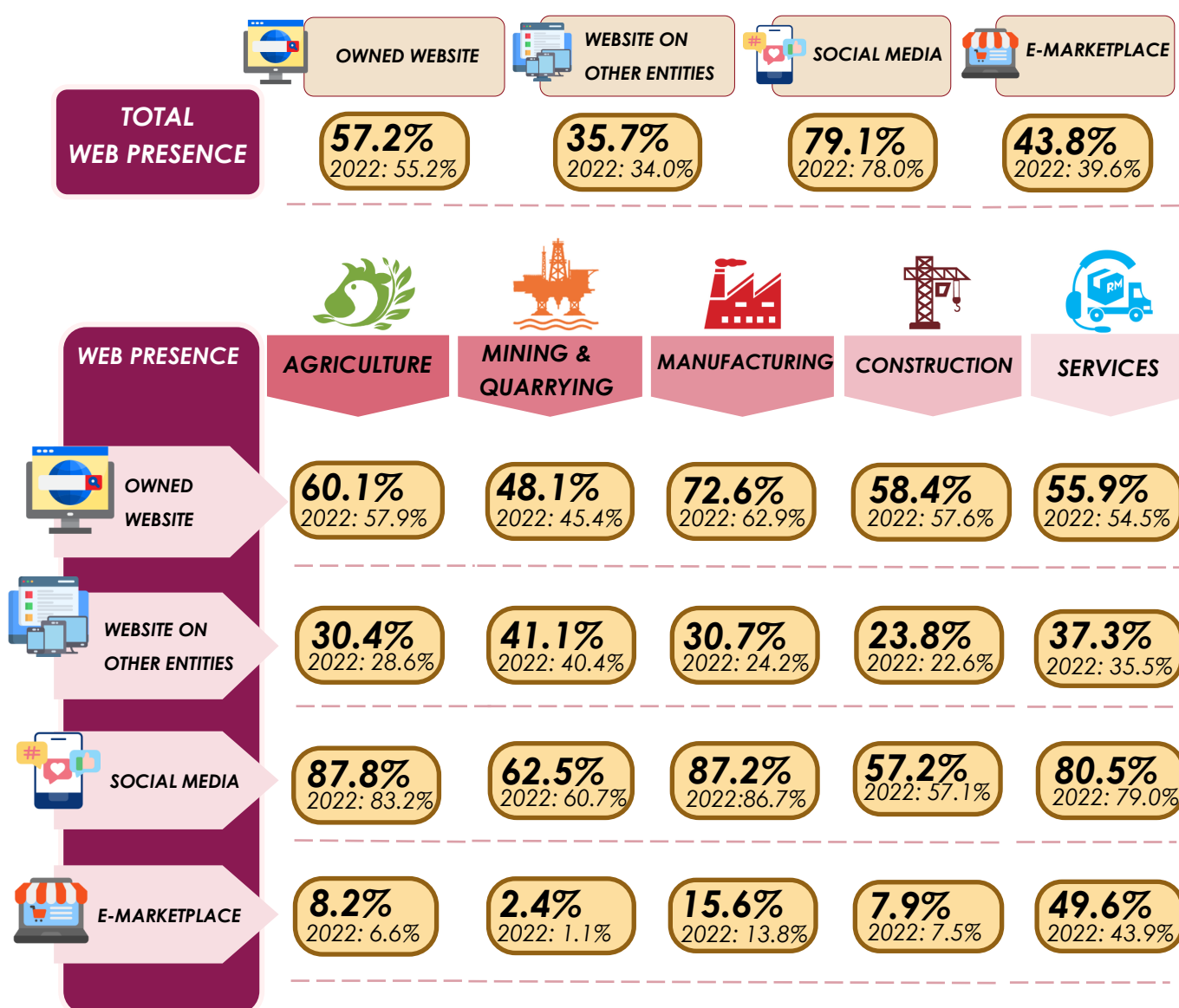
**Figure 2: Percentage Usage of Computer, Internet and Web Presence by Sector, 2022 and 2023**



### 3. TYPES OF WEB PRESENCE OWNERSHIP BY SECTOR

Figure 3 details the types of web presence owned by establishments according to sectors. Manufacturing sector led the highest usage of owned websites at 72.6 per cent. In contrast, Mining & quarrying sector showed the highest reliance on websites hosted by other entities, registering 41.1 per cent. Agriculture sector registered the highest preference for social media as their primary web presence with 87.8 per cent. Concurrently, Services sector exhibited growth in e-marketplace usage, which rose to 49.6 per cent in year 2023 compared to 43.9 per cent in year 2022.

Figure 3 : Types of Web Presence Ownership by Sector, 2022 and 2023

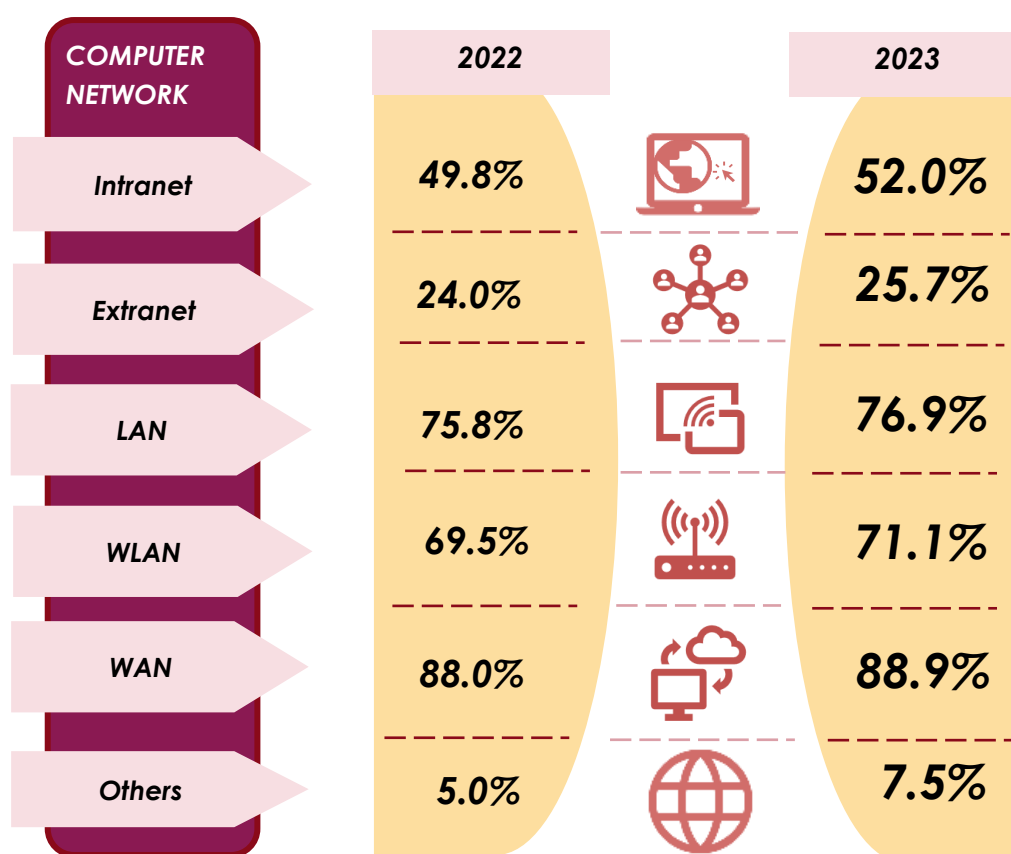


#### 4. COMPUTER NETWORK INFRASTRUCTURE

The adoption of computer network infrastructure showed an increase in 2023 compared to the previous year. Usage of Wide Area Network (WAN) reported at 88.9 per cent, up from 88.0 per cent in 2022. Local Area Network (LAN) usage maintained at 76.9 per cent, marking a slight rise from 75.8 per cent. Similarly, Wireless Local Area Network (WLAN) usage grew to 71.1 per cent from 69.5 per cent in 2022.

Intranet usage stayed at maintain relevance at 52.0 per cent in 2023 increased from 49.8 per cent compare to previous year, while Extranet recorded a modest growth to 25.7 per cent in 2023 from 24.0 per cent in 2022. As illustrated in **Figure 4**, these statistics highlight the increase in the types of computer network infrastructure usage in 2022 and 2023.

**Figure 4: Types of Computer Network Infrastructure Usage, 2022 and 2023**



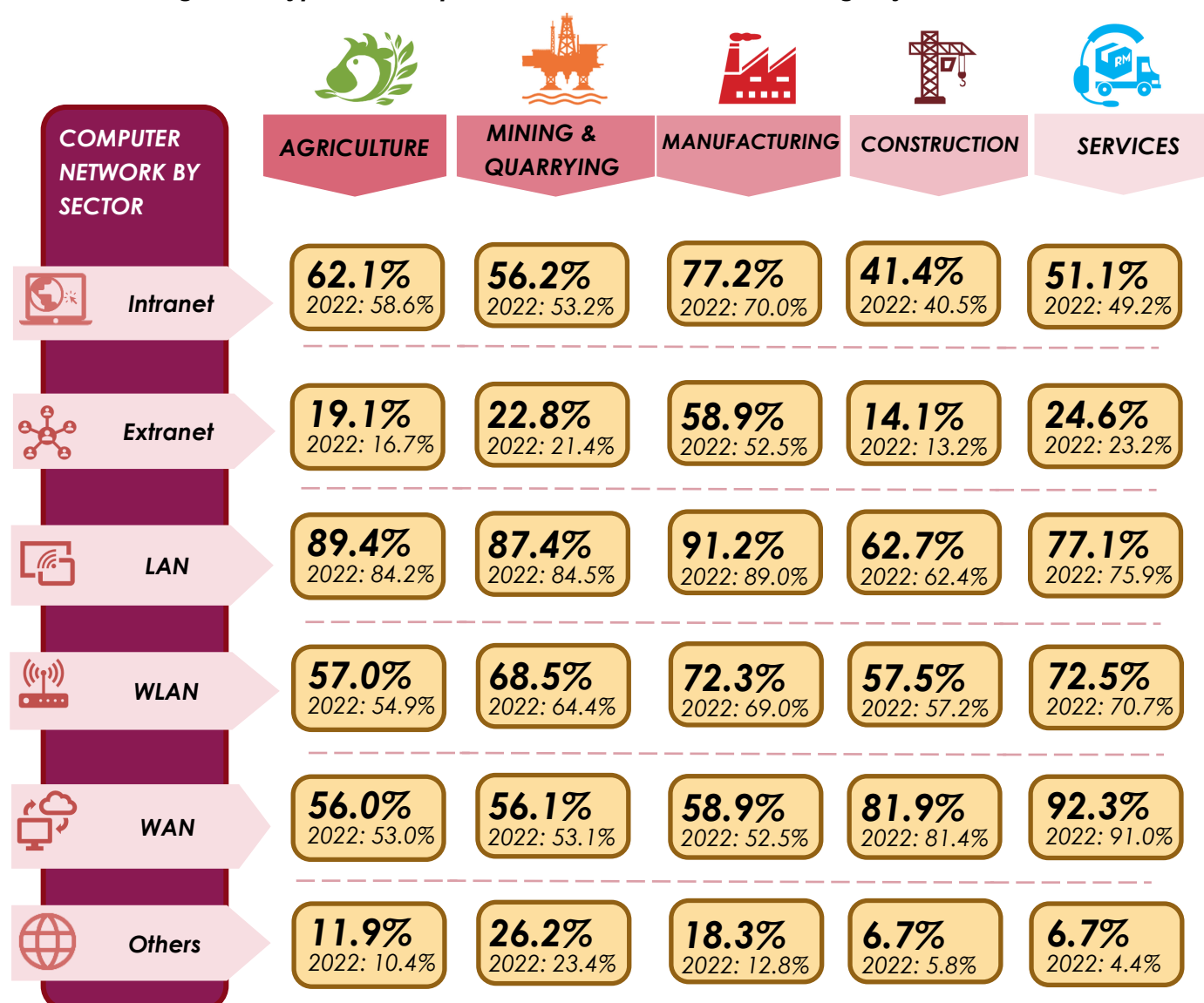
Note.

“-” refers to data not available

## 4.1 COMPUTER NETWORK INFRASTRUCTURE BY SECTOR

Manufacturing sector recorded the highest adoption rates of network technologies, with Intranet usage at 77.2 per cent, Extranet at 58.9 per cent, and LAN at 91.2 per cent in **Figure 5**. Services sector recorded the highest usage of WAN and WLAN with 92.3 per cent and 72.5 per cent, respectively. This indicates a growing need for large-scale network infrastructure to support digital services and enhanced customer interactions. Meanwhile, Mining & quarrying sector reported the highest usage of other network infrastructure types with 26.2 per cent includes the Metropolitan Area Network (MAN), Storage Area Network (SAN), and Personal Area Network (PAN), each serving different connectivity purposes based on their specific roles and capacities.

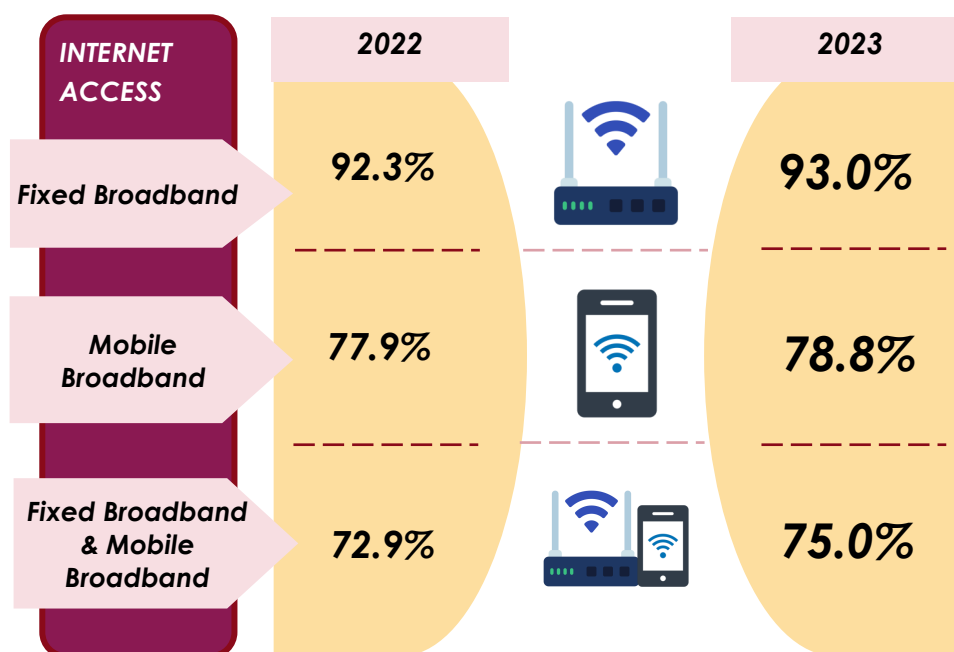
**Figure 5: Types of Computer Network Infrastructure Usage by Sector, 2022 and 2023**



## 5. TYPES OF INTERNET ACCESS

In 2023, a total of 93.0 per cent of establishments used fixed broadband, shows an increase from 92.3 per cent in 2022. Mobile broadband usage also rose to 78.8 per cent, up from 77.9 per cent a year before. Meanwhile, the use of both fixed and mobile broadband connections grow to 75.0 per cent in year 2023, compared to 72.9 per cent in year 2022. The shift in types of internet access reflects a continued increase in the use of more flexible and comprehensive internet connectivity, as illustrated in **Figure 6**.

**Figure 6: Types of Internet Access, 2022 and 2023**



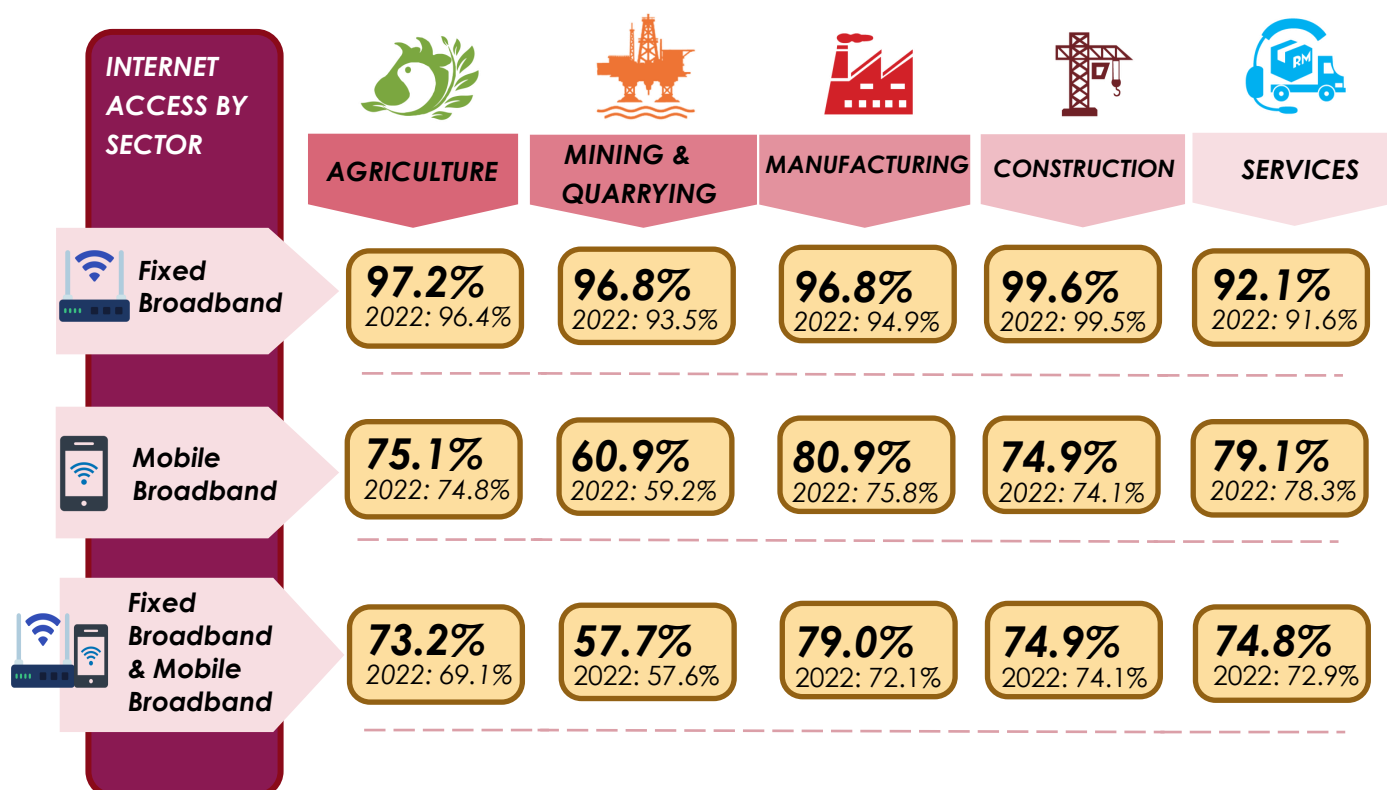
## 5.1 TYPES OF INTERNET ACCESS BY SECTOR

**Figure 7** shows the internet access types by sector for 2022 and 2023. Construction sector recorded the highest fixed broadband usage in 2023, achieving 99.6 per cent, an increase from 99.5 per cent in 2022. Agriculture sector also experienced growth, rising to 97.2 per cent from 96.4 per cent the previous year.

For mobile broadband, Manufacturing sector led with 80.9 per cent in 2023, increased from 75.8 per cent in 2022. Services sector recorded 79.1 per cent, with a slight rise from 78.3 per cent from the preceding year.

Manufacturing sector registered the highest value at 79.0 per cent, up from 72.1 per cent in previous year for the usage of both types broadband. Furthermore, the Construction sector reported an increased at 74.9 per cent, from 74.1 per cent compared to the previous year.

**Figure 7: Types of Internet Access by Sector, 2022 and 2023**



## 6. PURPOSE OF INTERNET USAGE

Internet usage by establishments according to purpose in 2022 and 2023 illustrated in **Figure 8**. The primary purpose of internet usage among establishments in 2023 was to send or receive emails, recorded at 96.3 per cent, up from 95.7 per cent in 2022. Internet banking usage also increased to 91.4 per cent in 2023 compared to 90.2 per cent in the previous year, indicating broader acceptance of digital financial transactions.

**Figure 8: Purpose of Internet Usage by Establishments, 2022 and 2023**

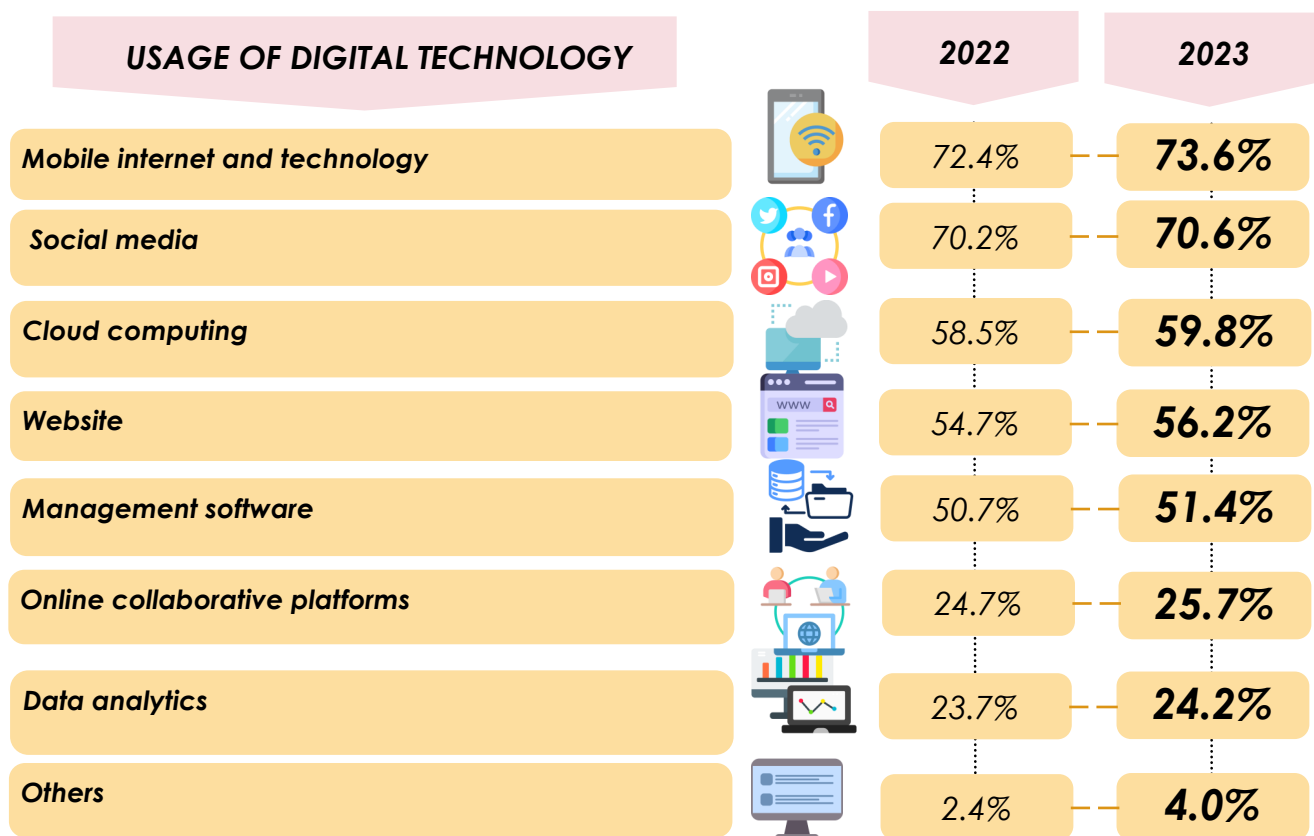
| PURPOSE OF INTERNET USAGE                         |                                                                                     | 2022  | 2023         |
|---------------------------------------------------|-------------------------------------------------------------------------------------|-------|--------------|
| Sending or receiving e-mail                       |    | 95.7% | <b>96.3%</b> |
| Internet banking                                  |    | 90.2% | <b>91.4%</b> |
| Getting information about goods or services       |   | 81.6% | <b>82.4%</b> |
| Posting information or instant messaging          |  | 81.2% | <b>81.9%</b> |
| Telephoning over the internet                     |  | 75.1% | <b>76.3%</b> |
| Getting information from government organisations |  | 68.6% | <b>69.3%</b> |
| Interacting with government organisations         |  | 63.2% | <b>63.8%</b> |
| Internal or external job recruitment              |  | 53.1% | <b>53.9%</b> |
| Providing customer services                       |  | 46.8% | <b>47.9%</b> |
| Accessing other financial services                |  | 42.3% | <b>43.9%</b> |
| Delivering products online                        |  | 36.8% | <b>37.8%</b> |
| Staff training (e-learning application)           |  | 24.2% | <b>25.0%</b> |
| Others                                            |  | 11.6% | <b>12.4%</b> |

## 7. USAGE OF DIGITAL TECHNOLOGY

**Figure 9** shows the usage of digital technologies by establishments in 2022 dan 2023. Mobile internet and technology remained the most adopted digital solution in 2023, with usage rising to 73.6 per cent from 72.4 per cent in 2022. Social media adoption also increased marginally to 70.6 per cent from 70.2 per cent in 2022, while cloud computing saw an uptake of 59.8 per cent, compared to 58.5 per cent in the previous year.

Website usage rose to 56.2 per cent compared to 54.7 per cent in 2022, while the adoption of management software increased to 51.4 per cent from 50.7 per cent in 2022.

**Figure 9: Usage of Digital Technology, 2022 and 2023**

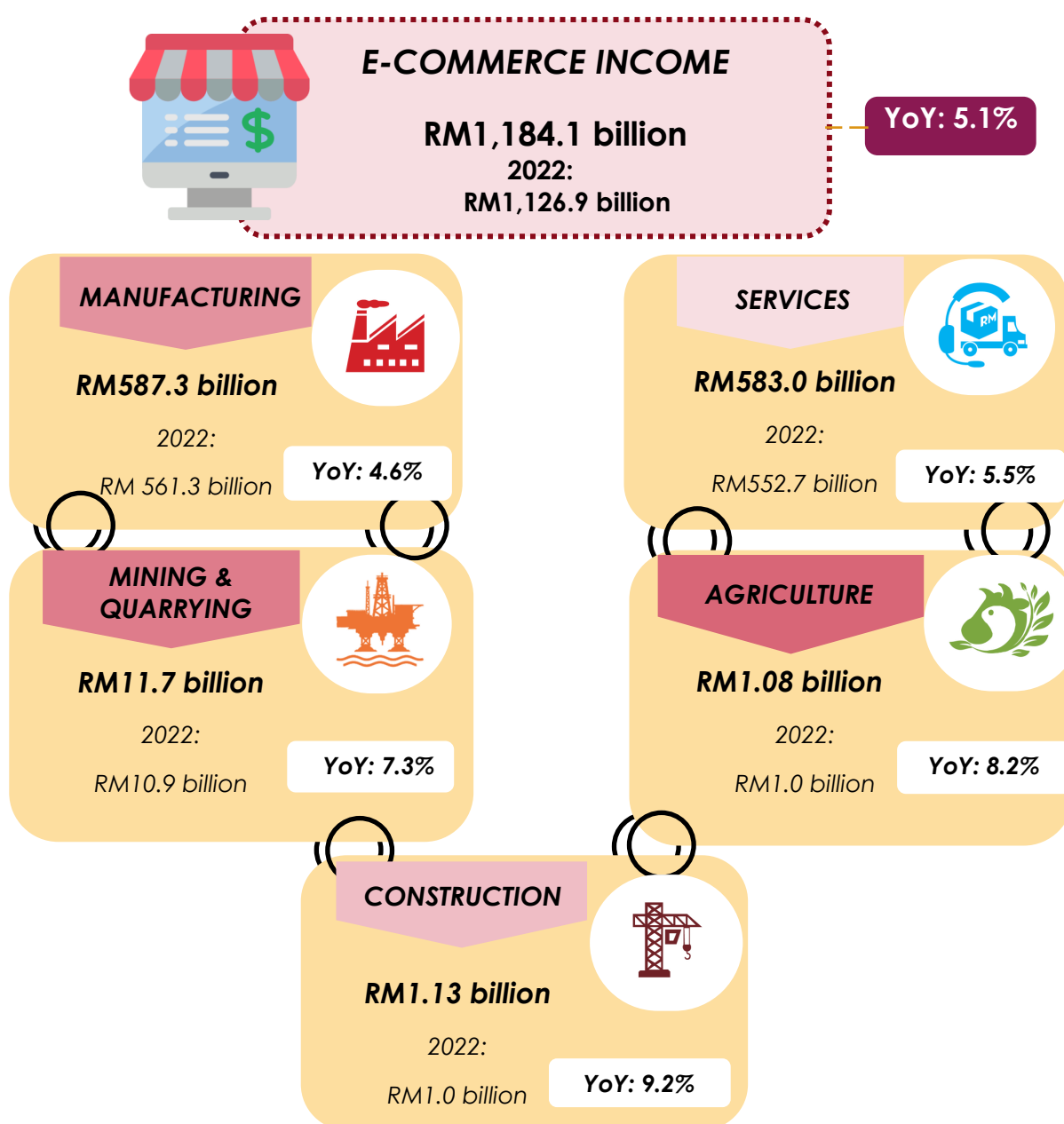


## 8. E-COMMERCE INCOME

### 8.1 E-COMMERCE INCOME BY SECTOR

E-commerce transaction income continues to demonstrate positive growth, rising to RM1,184.1 billion in 2023 compared to RM1,126.9 billion in 2022, reflecting a year-on-year (YoY) growth of 5.1 per cent. The Manufacturing sector recorded RM587.3 billion, marking growth of 4.6 per cent compared to 2022. This was followed by the Services sector, which recorded increased to RM583.0 billion in 2023 from RM552.7 billion in 2022, representing growth of 5.5 per cent as illustrated in **Figure 10**.

**Figure 10: E-Commerce Income, 2022 and 2023**



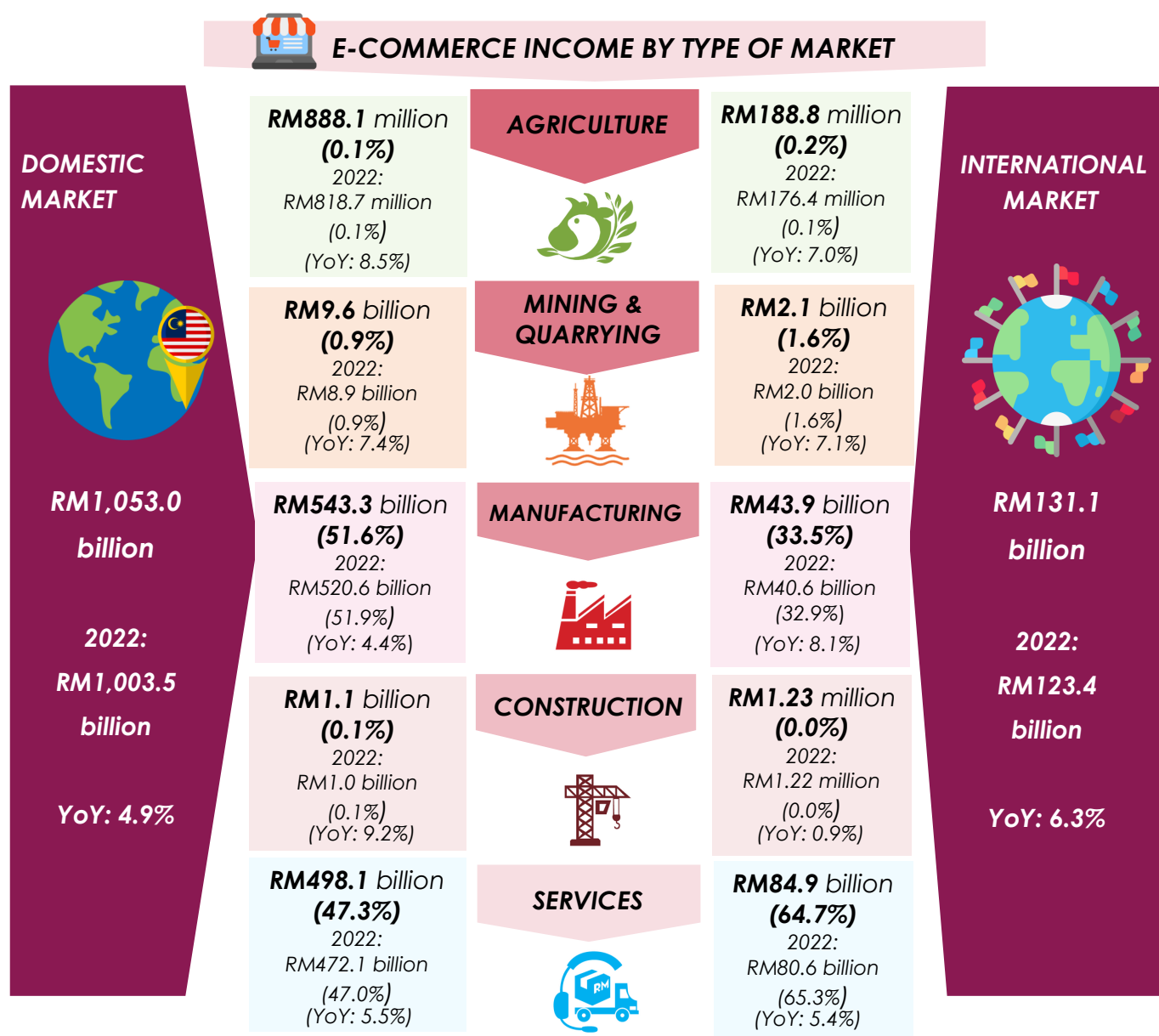
**Note.**

YoY - Percentage change year-on-year

## 8.2 E-COMMERCE INCOME BY TYPE OF MARKET

E-commerce transaction income in Malaysia was mainly driven by the domestic market, which recorded a value of RM1,053.0 billion in 2023, up from RM1,003.5 billion in 2022, reflecting a positive growth of 4.9 per cent. International market contributions showed stronger expansion, rising to RM131.1 billion from RM123.4 billion in 2022, reflecting growth of 6.3 per cent. Within the domestic market, Manufacturing sector remained the dominant contributor with RM543.3 billion, achieving 4.4 per cent growth. Meanwhile, international market was led by Services sector, which generated RM84.9 billion, with a 5.4 per cent growth compared to 2022, as presented in **Figure 11**.

**Figure 11: E-Commerce Income by Type of Market, 2022 and 2023**



**Note.**

(%) - Percentage share

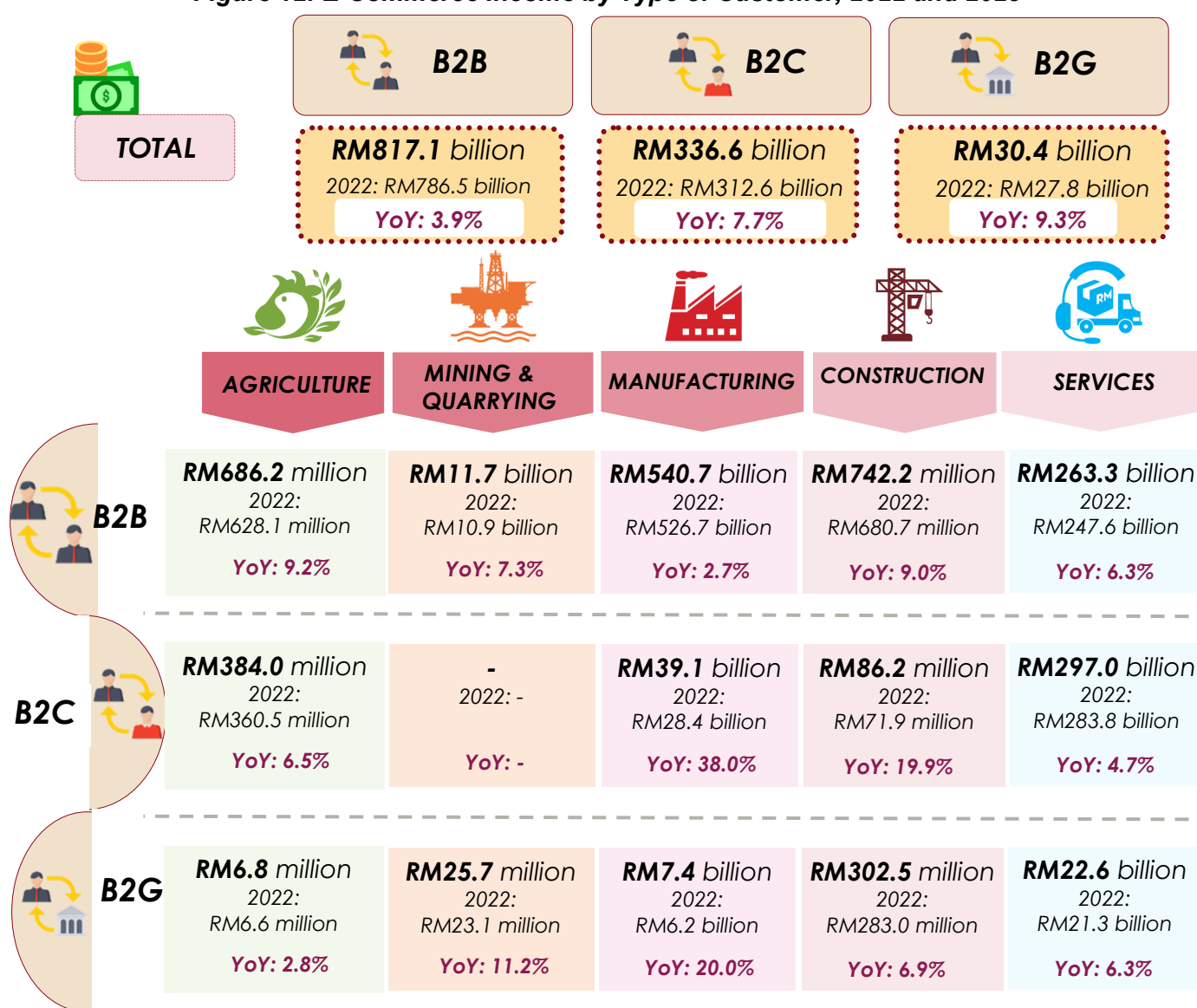
YoY - Percentage change year-on-year

### 8.3 E-COMMERCE INCOME BY TYPE OF CUSTOMER

Total e-commerce income by customer type showed that the Business to Business (B2B) category remained the primary contributor with RM817.1 billion, reflecting a 3.9 per cent growth. Meanwhile, Business to Consumer (B2C) recorded an income amounting to RM336.6 billion achieving a 7.7 per cent growth compared to the previous year. For the Business to Government (B2G) category, income increased to RM30.4 billion with a growth of 9.3 per cent compared to 2022.

As Manufacturing sector remained the highest contributor for B2B with income of RM540.7 billion, recording a positive growth of 2.7 per cent compared in 2022. Meanwhile, Services sector dominated both B2C and B2G transactions in 2023, recording RM297.1 billion with a 4.7 per cent growth and RM22.7 billion with a 6.4 per cent growth, respectively, as shown in Figure 12.

Figure 12: E-Commerce Income by Type of Customer, 2022 and 2023



Note. “-” refers to data not available

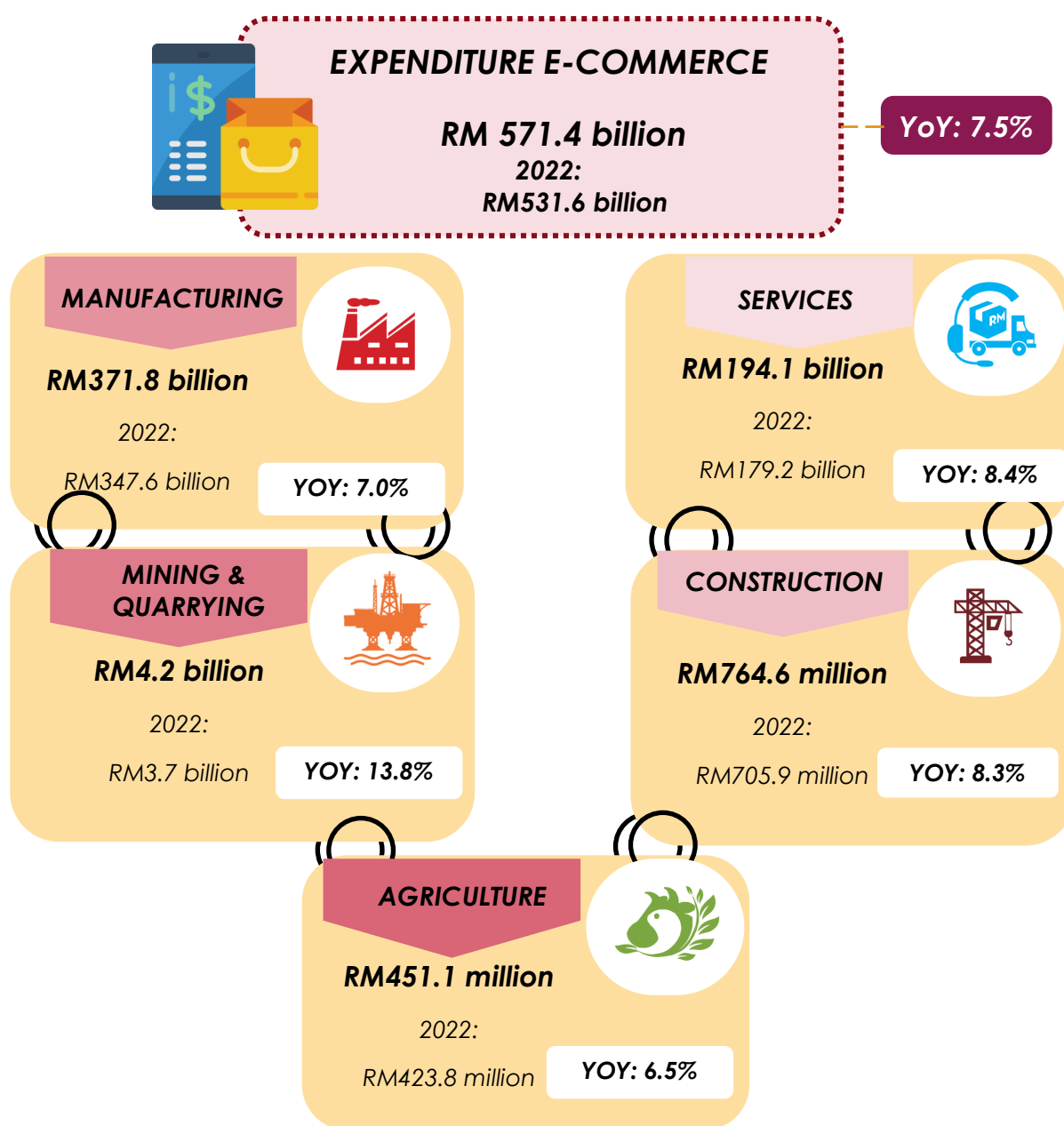
YoY - Percentage change year-on-year

## 9. EXPENDITURE FROM E-COMMERCE

### 9.1 E-COMMERCE EXPENDITURE BY SECTOR

In 2023, expenditure from e-commerce transaction in Malaysia increased to RM571.4 billion, compared to RM531.6 billion in 2022, representing a year-on-year percentage change of 7.5 per cent. Manufacturing sector recorded the highest e-commerce expenditure, amounting to RM371.8 billion in 2023 compared to RM347.6 billion in 2022, reflecting a growth of 7.0 per cent. This was followed by the Services sector, which recorded an expenditure of RM194.1 billion, an increase from RM179.2 billion in the previous year, with growth of 8.4 per cent, as shown in **Figure 13**.

**Figure 13: Expenditure from E-Commerce , 2022 and 2023**



**Note.**

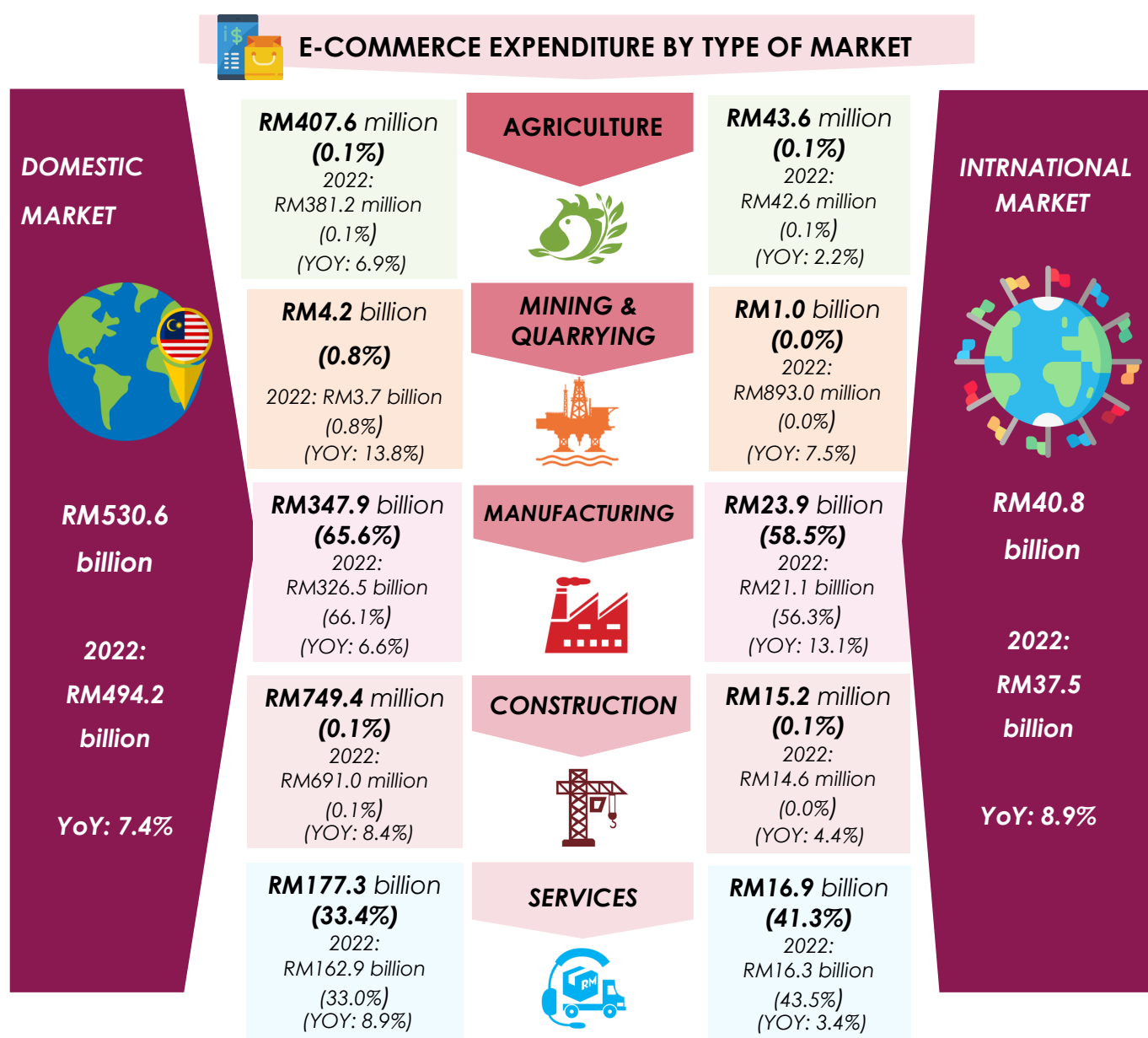
(%) - Percentage share

YoY - Percentage change year-on-year

## 9.2 E-COMMERCE EXPENDITURE BY TYPE OF MARKET

E-commerce expenditure in Malaysia was predominantly driven by the domestic market, which recorded a total of RM530.6 billion in 2023 compared to RM492.2 billion in the previous year, reflecting growth of 7.4 per cent. Meanwhile, the international market contributed RM40.8 billion, marking an increase from RM37.5 billion in 2022 with growth of 8.9 per cent. Within the domestic market, Manufacturing sector emerged as the main contributor with an expenditure of RM347.9 billion, representing a growth of 6.6 per cent from RM326.5 billion in 2022. As the international market, Manufacturing sector remained the primary contributor, recording an expenditure of RM23.9 billion compared to RM21.1 billion in 2022, reflecting a growth of 13.1 per cent, as shown in **Figure 14**.

**Figure 14: E-Commerce Expenditure by Type of Market, 2022 and 2023**



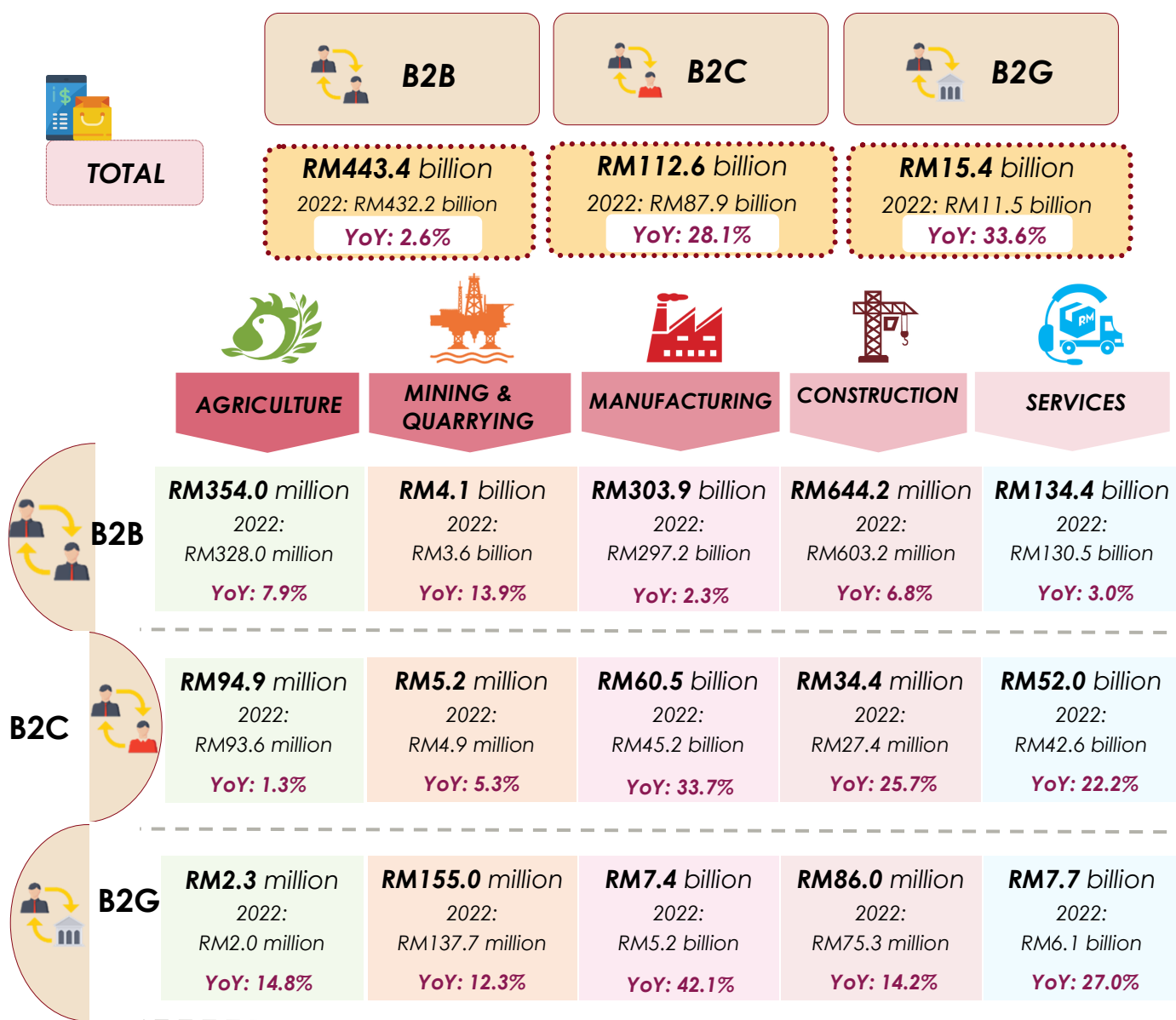
**Note.** (%) - Percentage share

YoY - Percentage change year-on-year

### 9.3 E-COMMERCE EXPENDITURE BY TYPE OF CUSTOMER

In 2023, e-commerce expenditure by type of customer showed that the B2B category remained the primary contributor, recording RM443.4 billion with growth of 2.6 per cent. The B2C category recorded RM112.6 billion with growth of 28.1 per cent, while the B2G category contributed RM15.4 billion with growth of 33.6 per cent. Within the B2B category, Manufacturing sector continued to be the main contributor to e-commerce expenditure, with a total of RM303.9 billion, reflecting growth of 2.3 per cent. For the B2C category, Manufacturing sector also recorded the highest value of RM60.5 billion, with growth of 33.7 per cent. Meanwhile, in the B2G category, Services sector dominated with RM7.7 billion, registering growth of 27.0 per cent, as illustrated in **Figure 15**.

**Figure 15: E-Commerce Expenditure by Type of Customer, 2022 and 2023**



# 3



## JADUAL STATISTIK

*Statistical Tables*



PENGUNAAN ICT  
DAN E-DAGANG  
PERTUBUHAN 2024



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**Jadual 1: Penggunaan Komputer, Internet dan Web Presence mengikut Sektor/ Subsektor, 2015, 2022 dan 2023**  
*Table 1: Usage of Computer, Internet and Web Presence by Sector/ Sub-sector, 2015, 2022 and 2023*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Penggunaan komputer<br><i>Computer usage</i> | Penggunaan internet<br><i>Internet usage</i> | Penggunaan web presence<br><i>Web presence owned</i> |
|--------------------------------------------------------------------------------|----------------------|----------------------------------------------|----------------------------------------------|------------------------------------------------------|
|                                                                                |                      | %                                            | %                                            | %                                                    |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>96.6</b>                                  | <b>94.0</b>                                  | <b>72.7</b>                                          |
|                                                                                | 2022                 | 95.9                                         | 93.3                                         | 71.4                                                 |
|                                                                                | 2015                 | 73.5                                         | 61.5                                         | 28.4                                                 |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>92.2</b>                                  | <b>88.8</b>                                  | <b>58.9</b>                                          |
|                                                                                | 2022                 | 89.9                                         | 85.0                                         | 54.8                                                 |
|                                                                                | 2015                 | 69.2                                         | 49.4                                         | 8.5                                                  |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>94.2</b>                                  | <b>94.2</b>                                  | <b>58.7</b>                                          |
|                                                                                | 2022                 | 93.0                                         | 91.0                                         | 55.4                                                 |
|                                                                                | 2015                 | 88.3                                         | 75.5                                         | 25.0                                                 |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>95.0</b>                                  | <b>95.0</b>                                  | <b>76.0</b>                                          |
|                                                                                | 2022                 | 94.8                                         | 94.6                                         | 74.4                                                 |
|                                                                                | 2015                 | 91.8                                         | 88.1                                         | 16.6                                                 |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>97.1</b>                                  | <b>96.0</b>                                  | <b>71.5</b>                                          |
|                                                                                | 2022                 | 96.8                                         | 95.7                                         | 70.8                                                 |
|                                                                                | 2015                 | 73.4                                         | 67.7                                         | 12.2                                                 |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>96.7</b>                                  | <b>93.9</b>                                  | <b>72.9</b>                                          |
|                                                                                | 2022                 | 96.0                                         | 93.1                                         | 71.6                                                 |
|                                                                                | 2015                 | 72.4                                         | 59.8                                         | 30.2                                                 |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>100.0</b>                                 | <b>100.0</b>                                 | <b>76.6</b>                                          |
|                                                                                | 2022                 | 98.2                                         | 97.9                                         | 70.4                                                 |
|                                                                                | 2015                 | 78.7                                         | 71.5                                         | 17.3                                                 |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>96.7</b>                                  | <b>95.4</b>                                  | <b>67.5</b>                                          |
|                                                                                | 2022                 | 96.3                                         | 95.0                                         | 67.4                                                 |
|                                                                                | 2015                 | 87.0                                         | 74.3                                         | 46.2                                                 |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>91.9</b>                                  | <b>89.7</b>                                  | <b>68.2</b>                                          |
|                                                                                | 2022                 | 91.7                                         | 88.6                                         | 65.3                                                 |
|                                                                                | 2015                 | 33.7                                         | 38.5                                         | 22.2                                                 |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>100.0</b>                                 | <b>99.8</b>                                  | <b>93.3</b>                                          |
|                                                                                | 2022                 | 99.6                                         | 99.5                                         | 92.8                                                 |
|                                                                                | 2015                 | 90.9                                         | 76.1                                         | 28.6                                                 |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>93.4</b>                                  | <b>78.7</b>                                  | <b>69.8</b>                                          |
|                                                                                | 2022                 | 91.0                                         | 77.5                                         | 66.8                                                 |
|                                                                                | 2015                 | 41.3                                         | 20.2                                         | 11.8                                                 |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>100.0</b>                                 | <b>100.0</b>                                 | <b>100.0</b>                                         |
|                                                                                | 2022                 | 100.0                                        | 100.0                                        | 100.0                                                |
|                                                                                | 2015                 | 100.0                                        | 100.0                                        | 89.7                                                 |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>100.0</b>                                 | <b>100.0</b>                                 | <b>100.0</b>                                         |
|                                                                                | 2022                 | 100.0                                        | 100.0                                        | 100.0                                                |
|                                                                                | 2015                 | 100.0                                        | 100.0                                        | 26.2                                                 |

**Jadual 1: Penggunaan Komputer, Internet dan Web Presence mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 1: Usage of Computer, Internet and Web Presence by Sector/ Sub-sector, 2015, 2022 and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Tahun<br>Year | Penggunaan komputer<br>Computer usage | Penggunaan internet<br>Internet usage | Penggunaan web presence<br>Web presence owned |
|---------------------------------------------------------------------------------------------|---------------|---------------------------------------|---------------------------------------|-----------------------------------------------|
|                                                                                             |               | %                                     | %                                     | %                                             |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>   | <b>100.0</b>                          | <b>100.0</b>                          | <b>73.6</b>                                   |
|                                                                                             | 2022          | 100.0                                 | 100.0                                 | 70.1                                          |
|                                                                                             | 2015          | 99.8                                  | 99.7                                  | 12.3                                          |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>   | <b>100.0</b>                          | <b>99.0</b>                           | <b>78.9</b>                                   |
|                                                                                             | 2022          | 100.0                                 | 97.9                                  | 75.8                                          |
|                                                                                             | 2015          | 98.5                                  | 93.8                                  | 17.5                                          |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>   | <b>99.7</b>                           | <b>99.7</b>                           | <b>73.1</b>                                   |
|                                                                                             | 2022          | 99.6                                  | 99.6                                  | 72.7                                          |
|                                                                                             | 2015          | 84.9                                  | 75.2                                  | 11.5                                          |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>   | <b>98.8</b>                           | <b>98.8</b>                           | <b>77.9</b>                                   |
|                                                                                             | 2022          | 98.5                                  | 98.1                                  | 76.4                                          |
|                                                                                             | 2015          | 86.8                                  | 74.4                                  | 18.0                                          |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b>   | <b>99.1</b>                           | <b>99.1</b>                           | <b>83.2</b>                                   |
|                                                                                             | 2022          | 99.0                                  | 99.0                                  | 82.4                                          |
|                                                                                             | 2015          | 82.8                                  | 68.4                                  | 12.7                                          |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>   | <b>98.1</b>                           | <b>96.2</b>                           | <b>79.1</b>                                   |
|                                                                                             | 2022          | 96.0                                  | 94.8                                  | 77.4                                          |
|                                                                                             | 2015          | 81.7                                  | 76.0                                  | 15.1                                          |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>   | <b>96.3</b>                           | <b>96.3</b>                           | <b>85.0</b>                                   |
|                                                                                             | 2022          | 95.2                                  | 95.2                                  | 80.3                                          |
|                                                                                             | 2015          | 38.7                                  | 23.5                                  | 10.2                                          |



**Jadual 2: Jenis Web Presence yang Dimiliki mengikut Sektor/ Subsektor, 2015, 2022 dan 2023**  
*Table 2: Type of Web Presence Owned by Sector/ Sub-sector, 2015, 2022, and 2023*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Laman web<br>kepunyaan sendiri<br><i>Website owned by<br/>establishment</i> | Laman web<br>di entiti lain<br><i>Presence on another<br/>entity's website</i> | Media sosial<br><i>Social media</i> | E-Pasaran<br><i>E-Marketplace</i> |
|--------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------|-----------------------------------|
|                                                                                |                      | %                                                                           | %                                                                              | %                                   | %                                 |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>57.2</b>                                                                 | <b>35.7</b>                                                                    | <b>79.1</b>                         | <b>43.8</b>                       |
|                                                                                | 2022                 | 55.2                                                                        | 34.0                                                                           | 78.0                                | 39.6                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>60.1</b>                                                                 | <b>30.4</b>                                                                    | <b>87.8</b>                         | <b>8.2</b>                        |
|                                                                                | 2022                 | 57.9                                                                        | 28.6                                                                           | 83.2                                | 6.6                               |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>48.1</b>                                                                 | <b>41.1</b>                                                                    | <b>62.5</b>                         | <b>2.4</b>                        |
|                                                                                | 2022                 | 45.4                                                                        | 40.4                                                                           | 60.7                                | 1.1                               |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>72.6</b>                                                                 | <b>30.7</b>                                                                    | <b>87.2</b>                         | <b>15.6</b>                       |
|                                                                                | 2022                 | 62.9                                                                        | 24.2                                                                           | 86.7                                | 13.8                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>58.4</b>                                                                 | <b>23.8</b>                                                                    | <b>57.2</b>                         | <b>7.9</b>                        |
|                                                                                | 2022                 | 57.6                                                                        | 22.6                                                                           | 57.1                                | 7.5                               |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>55.9</b>                                                                 | <b>37.3</b>                                                                    | <b>80.5</b>                         | <b>49.6</b>                       |
|                                                                                | 2022                 | 54.5                                                                        | 35.5                                                                           | 79.0                                | 43.9                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>41.5</b>                                                                 | <b>18.4</b>                                                                    | <b>95.6</b>                         | <b>2.6</b>                        |
|                                                                                | 2022                 | 38.4                                                                        | 14.1                                                                           | 94.3                                | 1.9                               |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>52.2</b>                                                                 | <b>31.5</b>                                                                    | <b>79.9</b>                         | <b>70.0</b>                       |
|                                                                                | 2022                 | 52.0                                                                        | 31.4                                                                           | 79.6                                | 60.0                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>64.3</b>                                                                 | <b>40.7</b>                                                                    | <b>68.7</b>                         | <b>52.3</b>                       |
|                                                                                | 2022                 | 56.6                                                                        | 31.0                                                                           | 57.8                                | 43.6                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>69.4</b>                                                                 | <b>49.6</b>                                                                    | <b>85.7</b>                         | <b>61.5</b>                       |
|                                                                                | 2022                 | 68.1                                                                        | 48.6                                                                           | 84.8                                | 59.8                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>51.2</b>                                                                 | <b>57.2</b>                                                                    | <b>92.2</b>                         | <b>66.1</b>                       |
|                                                                                | 2022                 | 47.4                                                                        | 52.4                                                                           | 90.4                                | 61.1                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>85.6</b>                                                                 | <b>58.0</b>                                                                    | <b>96.5</b>                         | <b>36.6</b>                       |
|                                                                                | 2022                 | 84.4                                                                        | 53.4                                                                           | 95.3                                | 33.7                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>67.0</b>                                                                 | <b>31.6</b>                                                                    | <b>82.2</b>                         | <b>13.5</b>                       |
|                                                                                | 2022                 | 66.7                                                                        | 31.2                                                                           | 82.1                                | 12.4                              |
|                                                                                | 2015                 | -                                                                           | -                                                                              | -                                   | -                                 |

**Jadual 2: Jenis Web Presence yang Dimiliki mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 2: Type of Web Presence Owned by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Tahun<br>Year | Laman web<br>kepunyaan sendiri<br>Website owned by<br>establishment | Laman web<br>di entiti lain<br>Presence on another<br>entity's website | Media sosial<br>Social media | E-Pasaran<br>E-Marketplace |
|---------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------|----------------------------|
|                                                                                             |               | %                                                                   | %                                                                      | %                            | %                          |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>   | <b>54.1</b>                                                         | <b>41.6</b>                                                            | <b>81.6</b>                  | <b>20.2</b>                |
|                                                                                             | 2022          | 50.1                                                                | 39.6                                                                   | 77.1                         | 17.0                       |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>   | <b>60.3</b>                                                         | <b>52.7</b>                                                            | <b>72.0</b>                  | <b>12.7</b>                |
|                                                                                             | 2022          | 59.3                                                                | 49.5                                                                   | 70.2                         | 11.4                       |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>   | <b>47.2</b>                                                         | <b>43.2</b>                                                            | <b>77.2</b>                  | <b>15.0</b>                |
|                                                                                             | 2022          | 46.9                                                                | 42.6                                                                   | 76.0                         | 8.0                        |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>   | <b>47.6</b>                                                         | <b>22.9</b>                                                            | <b>75.7</b>                  | <b>5.8</b>                 |
|                                                                                             | 2022          | 46.6                                                                | 20.3                                                                   | 74.3                         | 4.2                        |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |
| <b>Kesihatan Kemanusiaan<br/>dan Kerja Sosial</b><br><i>Human Health and Social Work</i>    | <b>2023</b>   | <b>51.0</b>                                                         | <b>30.4</b>                                                            | <b>80.8</b>                  | <b>8.6</b>                 |
|                                                                                             | 2022          | 50.7                                                                | 29.2                                                                   | 80.6                         | 8.0                        |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>   | <b>78.3</b>                                                         | <b>34.7</b>                                                            | <b>94.3</b>                  | <b>53.9</b>                |
|                                                                                             | 2022          | 77.1                                                                | 31.8                                                                   | 91.3                         | 24.9                       |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>   | <b>63.6</b>                                                         | <b>20.1</b>                                                            | <b>70.3</b>                  | <b>13.3</b>                |
|                                                                                             | 2022          | 61.7                                                                | 17.4                                                                   | 67.5                         | 10.8                       |
|                                                                                             | 2015          | -                                                                   | -                                                                      | -                            | -                          |

**Nota .**

'-' merujuk kepada data tidak tersedia

Notes.

'-' refers to data not available



**Jadual 3: Jenis Rangkaian Komputer yang Digunakan mengikut Sektor/ Subsektor, 2015, 2022 dan 2023**  
**Table 3: Type of Computer Network Infrastructure Used by Sector/ Sub-sector, 2015, 2022, and 2023**

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Intranet<br><i>Intranet</i> | Extranet<br><i>Extranet</i> | Rangkaian kawasan setempat<br><i>Local area network (LAN)</i> | Rangkaian kawasan setempat tanpa wayar<br><i>Wireless local area network (WLAN)</i> | Rangkaian kawasan luas<br><i>Wide area network (WAN)</i> | Lain- lain<br><i>Others</i> |
|--------------------------------------------------------------------------------|----------------------|-----------------------------|-----------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------|
|                                                                                |                      | %                           | %                           | %                                                             | %                                                                                   | %                                                        | %                           |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>52.0</b>                 | <b>25.7</b>                 | <b>76.9</b>                                                   | <b>71.1</b>                                                                         | <b>88.9</b>                                              | <b>7.5</b>                  |
|                                                                                | 2022                 | 49.8                        | 24.0                        | 75.8                                                          | 69.5                                                                                | 88.0                                                     | 5.0                         |
|                                                                                | 2015                 | 24.1                        | 9.5                         | 54.2                                                          | -                                                                                   | 26.1                                                     | 7.9                         |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>62.1</b>                 | <b>19.1</b>                 | <b>89.4</b>                                                   | <b>57.0</b>                                                                         | <b>56.0</b>                                              | <b>11.9</b>                 |
|                                                                                | 2022                 | 58.6                        | 16.7                        | 84.2                                                          | 54.9                                                                                | 53.0                                                     | 10.4                        |
|                                                                                | 2015                 | 23.2                        | 4.5                         | 54.2                                                          | -                                                                                   | 26.4                                                     | 10.8                        |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>56.2</b>                 | <b>22.8</b>                 | <b>87.4</b>                                                   | <b>68.5</b>                                                                         | <b>56.1</b>                                              | <b>26.2</b>                 |
|                                                                                | 2022                 | 53.2                        | 21.4                        | 84.5                                                          | 64.4                                                                                | 53.1                                                     | 23.4                        |
|                                                                                | 2015                 | 28.9                        | 7.7                         | 57.8                                                          | -                                                                                   | 35.5                                                     | 7.5                         |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>77.2</b>                 | <b>58.9</b>                 | <b>91.2</b>                                                   | <b>72.3</b>                                                                         | <b>58.9</b>                                              | <b>18.3</b>                 |
|                                                                                | 2022                 | 70.0                        | 52.5                        | 89.0                                                          | 69.0                                                                                | 52.5                                                     | 12.8                        |
|                                                                                | 2015                 | 46.1                        | 36.0                        | 61.8                                                          | -                                                                                   | 22.6                                                     | 8.8                         |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>41.4</b>                 | <b>14.1</b>                 | <b>62.7</b>                                                   | <b>57.5</b>                                                                         | <b>81.9</b>                                              | <b>6.7</b>                  |
|                                                                                | 2022                 | 40.5                        | 13.2                        | 62.4                                                          | 57.2                                                                                | 81.4                                                     | 5.8                         |
|                                                                                | 2015                 | 16.8                        | 2.6                         | 50.8                                                          | -                                                                                   | 34.1                                                     | 11.8                        |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>51.1</b>                 | <b>24.6</b>                 | <b>77.1</b>                                                   | <b>72.5</b>                                                                         | <b>92.3</b>                                              | <b>6.7</b>                  |
|                                                                                | 2022                 | 49.2                        | 23.2                        | 75.9                                                          | 70.7                                                                                | 91.0                                                     | 4.4                         |
|                                                                                | 2015                 | 22.5                        | 7.6                         | 53.7                                                          | -                                                                                   | 26.0                                                     | 7.5                         |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>57.0</b>                 | <b>26.0</b>                 | <b>69.8</b>                                                   | <b>69.8</b>                                                                         | <b>98.6</b>                                              | <b>2.6</b>                  |
|                                                                                | 2022                 | 50.4                        | 20.3                        | 61.4                                                          | 69.3                                                                                | 98.1                                                     | 1.9                         |
|                                                                                | 2015                 | 26.4                        | 8.0                         | 50.8                                                          | -                                                                                   | 36.6                                                     | 11.9                        |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>45.2</b>                 | <b>20.9</b>                 | <b>77.3</b>                                                   | <b>72.5</b>                                                                         | <b>96.9</b>                                              | <b>6.9</b>                  |
|                                                                                | 2022                 | 45.0                        | 20.8                        | 77.1                                                          | 72.4                                                                                | 96.7                                                     | 4.0                         |
|                                                                                | 2015                 | 17.3                        | 9.0                         | 48.8                                                          | -                                                                                   | 24.6                                                     | 8.6                         |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>84.4</b>                 | <b>33.1</b>                 | <b>79.1</b>                                                   | <b>77.9</b>                                                                         | <b>99.5</b>                                              | <b>13.0</b>                 |
|                                                                                | 2022                 | 76.7                        | 25.5                        | 75.7                                                          | 69.9                                                                                | 97.6                                                     | 5.3                         |
|                                                                                | 2015                 | 50.8                        | 4.0                         | 43.5                                                          | -                                                                                   | 19.9                                                     | 8.3                         |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>53.8</b>                 | <b>29.9</b>                 | <b>83.3</b>                                                   | <b>71.3</b>                                                                         | <b>65.8</b>                                              | <b>8.3</b>                  |
|                                                                                | 2022                 | 52.4                        | 28.8                        | 80.6                                                          | 68.8                                                                                | 65.3                                                     | 8.0                         |
|                                                                                | 2015                 | 16.3                        | 6.5                         | 60.2                                                          | -                                                                                   | 35.9                                                     | 7.9                         |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>52.3</b>                 | <b>36.9</b>                 | <b>69.9</b>                                                   | <b>55.8</b>                                                                         | <b>68.7</b>                                              | <b>7.4</b>                  |
|                                                                                | 2022                 | 49.7                        | 33.5                        | 66.9                                                          | 51.6                                                                                | 66.4                                                     | 6.8                         |
|                                                                                | 2015                 | 20.6                        | 3.6                         | 68.0                                                          | -                                                                                   | 32.0                                                     | 3.0                         |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>78.3</b>                 | <b>27.0</b>                 | <b>82.2</b>                                                   | <b>81.9</b>                                                                         | <b>96.0</b>                                              | <b>6.8</b>                  |
|                                                                                | 2022                 | 75.9                        | 23.3                        | 79.8                                                          | 79.8                                                                                | 95.8                                                     | 4.8                         |
|                                                                                | 2015                 | 29.0                        | 7.2                         | 61.8                                                          | -                                                                                   | 29.0                                                     | 4.4                         |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>95.6</b>                 | <b>34.5</b>                 | <b>82.3</b>                                                   | <b>94.4</b>                                                                         | <b>95.1</b>                                              | <b>3.7</b>                  |
|                                                                                | 2022                 | 95.2                        | 34.3                        | 82.1                                                          | 93.9                                                                                | 94.5                                                     | 3.4                         |
|                                                                                | 2015                 | 64.5                        | 18.4                        | 79.3                                                          | -                                                                                   | 54.4                                                     | 3.4                         |

**Jadual 3: Jenis Rangkaian Komputer yang Digunakan mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 3: Type of Computer Network Infrastructure Used by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)**

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                              | Tahun<br><i>Year</i> | Intranet<br><i>Intranet</i> | Extranet<br><i>Extranet</i> | Rangkaian kawasan setempat<br><i>Local area network (LAN)</i> | Rangkaian kawasan setempat tanpa wayar<br><i>Wireless local area network (WLAN)</i> | Rangkaian kawasan luas<br><i>Wide area network (WAN)</i> | Lain- lain<br><i>Others</i> |
|---------------------------------------------------------------------------------------------|----------------------|-----------------------------|-----------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------|
|                                                                                             |                      | %                           | %                           | %                                                             | %                                                                                   | %                                                        | %                           |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>          | <b>46.1</b>                 | <b>16.6</b>                 | <b>98.5</b>                                                   | <b>68.8</b>                                                                         | <b>88.4</b>                                              | <b>10.2</b>                 |
|                                                                                             | 2022                 | 43.4                        | 12.5                        | 97.5                                                          | 65.4                                                                                | 85.6                                                     | 7.2                         |
|                                                                                             | 2015                 | 26.9                        | 2.0                         | 88.1                                                          | -                                                                                   | 9.2                                                      | 1.2                         |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>          | <b>51.4</b>                 | <b>22.3</b>                 | <b>77.2</b>                                                   | <b>74.4</b>                                                                         | <b>97.0</b>                                              | <b>5.5</b>                  |
|                                                                                             | 2022                 | 49.0                        | 19.7                        | 75.9                                                          | 73.8                                                                                | 96.0                                                     | 4.4                         |
|                                                                                             | 2015                 | 31.9                        | 3.1                         | 63.3                                                          | -                                                                                   | 24.7                                                     | 6.4                         |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>          | <b>48.3</b>                 | <b>29.8</b>                 | <b>78.9</b>                                                   | <b>79.3</b>                                                                         | <b>96.9</b>                                              | <b>3.0</b>                  |
|                                                                                             | 2022                 | 47.9                        | 28.9                        | 78.1                                                          | 78.1                                                                                | 96.9                                                     | 2.6                         |
|                                                                                             | 2015                 | 24.6                        | 3.8                         | 56.9                                                          | -                                                                                   | 25.6                                                     | 8.3                         |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>          | <b>45.5</b>                 | <b>34.8</b>                 | <b>73.5</b>                                                   | <b>64.5</b>                                                                         | <b>81.6</b>                                              | <b>2.5</b>                  |
|                                                                                             | 2022                 | 44.3                        | 32.4                        | 73.4                                                          | 63.7                                                                                | 80.8                                                     | 0.2                         |
|                                                                                             | 2015                 | 27.3                        | 4.0                         | 49.5                                                          | -                                                                                   | 26.0                                                     | 9.1                         |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b>          | <b>41.4</b>                 | <b>25.0</b>                 | <b>75.0</b>                                                   | <b>91.9</b>                                                                         | <b>82.2</b>                                              | <b>8.4</b>                  |
|                                                                                             | 2022                 | 40.9                        | 24.6                        | 74.7                                                          | 91.1                                                                                | 81.5                                                     | 8.2                         |
|                                                                                             | 2015                 | 25.9                        | 5.8                         | 52.6                                                          | -                                                                                   | 29.8                                                     | 8.8                         |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>          | <b>40.2</b>                 | <b>17.9</b>                 | <b>84.9</b>                                                   | <b>82.1</b>                                                                         | <b>72.4</b>                                              | <b>2.7</b>                  |
|                                                                                             | 2022                 | 38.9                        | 12.1                        | 78.5                                                          | 70.4                                                                                | 71.2                                                     | 1.3                         |
|                                                                                             | 2015                 | 27.5                        | 4.3                         | 49.6                                                          | -                                                                                   | 23.2                                                     | 9.1                         |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>          | <b>37.6</b>                 | <b>18.4</b>                 | <b>70.7</b>                                                   | <b>69.6</b>                                                                         | <b>94.0</b>                                              | <b>4.8</b>                  |
|                                                                                             | 2022                 | 35.5                        | 16.8                        | 68.2                                                          | 67.8                                                                                | 92.4                                                     | 2.2                         |
|                                                                                             | 2015                 | 19.3                        | 4.5                         | 42.0                                                          | -                                                                                   | 36.9                                                     | 8.4                         |

**Nota .**

'-' merujuk kepada data tidak tersedia

**Notes.**

'-' refers to data not available



**Jadual 4: Jenis Capaian Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023**  
**Table 4: Type of Internet Access by Sector/ Sub-sector, 2015, 2022, and 2023**

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Jalur lebar tetap<br><i>Fixed Broadband</i> | Jalur lebar mudah alih<br><i>Mobile Broadband</i> | Kedua-dua jalur lebar<br><i>Both types of broadband</i> |
|--------------------------------------------------------------------------------|----------------------|---------------------------------------------|---------------------------------------------------|---------------------------------------------------------|
|                                                                                |                      | %                                           | %                                                 | %                                                       |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>93.0</b>                                 | <b>78.8</b>                                       | <b>75.0</b>                                             |
|                                                                                | 2022                 | 92.3                                        | 77.9                                              | 72.9                                                    |
|                                                                                | 2015                 | 74.8                                        | 28.5                                              | -                                                       |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>97.2</b>                                 | <b>75.1</b>                                       | <b>73.2</b>                                             |
|                                                                                | 2022                 | 96.4                                        | 74.8                                              | 69.1                                                    |
|                                                                                | 2015                 | 78.4                                        | 28.0                                              | -                                                       |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>96.8</b>                                 | <b>60.9</b>                                       | <b>57.7</b>                                             |
|                                                                                | 2022                 | 93.5                                        | 59.2                                              | 57.6                                                    |
|                                                                                | 2015                 | 79.4                                        | 30.5                                              | -                                                       |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>96.8</b>                                 | <b>80.9</b>                                       | <b>79.0</b>                                             |
|                                                                                | 2022                 | 94.9                                        | 75.8                                              | 72.1                                                    |
|                                                                                | 2015                 | 72.6                                        | 54.4                                              | -                                                       |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>99.6</b>                                 | <b>74.9</b>                                       | <b>74.9</b>                                             |
|                                                                                | 2022                 | 99.5                                        | 74.1                                              | 74.1                                                    |
|                                                                                | 2015                 | 70.1                                        | 36.3                                              | -                                                       |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>92.1</b>                                 | <b>79.1</b>                                       | <b>74.8</b>                                             |
|                                                                                | 2022                 | 91.6                                        | 78.3                                              | 72.9                                                    |
|                                                                                | 2015                 | 75.2                                        | 25.8                                              | -                                                       |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>92.6</b>                                 | <b>67.0</b>                                       | <b>67.0</b>                                             |
|                                                                                | 2022                 | 91.3                                        | 65.1                                              | 62.1                                                    |
|                                                                                | 2015                 | 82.2                                        | 27.2                                              | -                                                       |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>91.8</b>                                 | <b>76.0</b>                                       | <b>71.3</b>                                             |
|                                                                                | 2022                 | 91.5                                        | 75.6                                              | 70.5                                                    |
|                                                                                | 2015                 | 71.1                                        | 25.7                                              | -                                                       |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>88.5</b>                                 | <b>88.8</b>                                       | <b>83.5</b>                                             |
|                                                                                | 2022                 | 90.5                                        | 86.5                                              | 85.0                                                    |
|                                                                                | 2015                 | 75.9                                        | 23.6                                              | -                                                       |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>96.9</b>                                 | <b>70.6</b>                                       | <b>70.4</b>                                             |
|                                                                                | 2022                 | 95.4                                        | 69.4                                              | 69.0                                                    |
|                                                                                | 2015                 | 86.3                                        | 22.3                                              | -                                                       |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>88.7</b>                                 | <b>87.5</b>                                       | <b>84.7</b>                                             |
|                                                                                | 2022                 | 88.5                                        | 87.3                                              | 81.7                                                    |
|                                                                                | 2015                 | 87.1                                        | 30.0                                              | -                                                       |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>100.0</b>                                | <b>96.5</b>                                       | <b>96.5</b>                                             |
|                                                                                | 2022                 | 100.0                                       | 95.4                                              | 86.8                                                    |
|                                                                                | 2015                 | 81.1                                        | 30.3                                              | -                                                       |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>95.7</b>                                 | <b>69.3</b>                                       | <b>68.5</b>                                             |
|                                                                                | 2022                 | 95.3                                        | 69.1                                              | 66.1                                                    |
|                                                                                | 2015                 | 93.5                                        | 46.4                                              | -                                                       |

**Jadual 4: Jenis Capaian Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 4: Type of Internet Access by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Tahun<br>Year | Jalur lebar tetap<br>Fixed Broadband | Jalur lebar mudah alih<br>Mobile Broadband | Kedua-dua jalur lebar<br>Both types of broadband |
|---------------------------------------------------------------------------------------------|---------------|--------------------------------------|--------------------------------------------|--------------------------------------------------|
|                                                                                             |               | %                                    | %                                          | %                                                |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>   | <b>98.5</b>                          | <b>73.7</b>                                | <b>73.7</b>                                      |
|                                                                                             | 2022          | 97.5                                 | 71.1                                       | 69.6                                             |
|                                                                                             | 2015          | 92.0                                 | 8.0                                        | -                                                |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>   | <b>94.2</b>                          | <b>77.4</b>                                | <b>72.4</b>                                      |
|                                                                                             | 2022          | 93.0                                 | 76.6                                       | 69.6                                             |
|                                                                                             | 2015          | 79.6                                 | 20.3                                       | -                                                |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>   | <b>99.0</b>                          | <b>97.1</b>                                | <b>97.1</b>                                      |
|                                                                                             | 2022          | 98.1                                 | 96.5                                       | 96.5                                             |
|                                                                                             | 2015          | 78.5                                 | 24.8                                       | -                                                |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>   | <b>95.4</b>                          | <b>89.1</b>                                | <b>89.1</b>                                      |
|                                                                                             | 2022          | 94.2                                 | 88.9                                       | 82.6                                             |
|                                                                                             | 2015          | 77.1                                 | 25.1                                       | -                                                |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b>   | <b>96.8</b>                          | <b>70.8</b>                                | <b>70.2</b>                                      |
|                                                                                             | 2022          | 96.7                                 | 63.9                                       | 66.1                                             |
|                                                                                             | 2015          | 76.7                                 | 26.8                                       | -                                                |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>   | <b>98.0</b>                          | <b>76.3</b>                                | <b>76.3</b>                                      |
|                                                                                             | 2022          | 99.5                                 | 75.6                                       | 75.5                                             |
|                                                                                             | 2015          | 84.1                                 | 19.7                                       | -                                                |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>   | <b>84.0</b>                          | <b>77.2</b>                                | <b>62.3</b>                                      |
|                                                                                             | 2022          | 82.2                                 | 76.4                                       | 58.6                                             |
|                                                                                             | 2015          | 66.7                                 | 35.6                                       | -                                                |

**Nota .**

'-' merujuk kepada data tidak tersedia

**Notes.**

'-' refers to data not available



**Jadual 5: Tujuan Penggunaan Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023**  
*Table 5: Purpose of Internet Usage by Sector/ Sub-sector, 2015, 2022, and 2023*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Menghantar atau menerima e-mel<br><i>Sending or receiving e-mail</i> | Telefon melalui internet<br><i>Telephoning over the internet</i> | Menghantar informasi atau pesanan dengan segera<br><i>Posting information or instant messaging</i> | Mendapatkan maklumat berkenaan barangan atau perkhidmatan<br><i>Getting information about goods or services</i> |
|--------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                                                                                |                      | %                                                                    | %                                                                | %                                                                                                  | %                                                                                                               |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>96.3</b>                                                          | <b>76.3</b>                                                      | <b>81.9</b>                                                                                        | <b>82.4</b>                                                                                                     |
|                                                                                | 2022                 | 95.7                                                                 | 75.1                                                             | 81.2                                                                                               | 81.6                                                                                                            |
|                                                                                | 2015                 | 70.6                                                                 | 18.6                                                             | 36.6                                                                                               | 38.9                                                                                                            |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>98.6</b>                                                          | <b>79.5</b>                                                      | <b>82.3</b>                                                                                        | <b>80.8</b>                                                                                                     |
|                                                                                | 2022                 | 98.1                                                                 | 75.1                                                             | 81.2                                                                                               | 78.5                                                                                                            |
|                                                                                | 2015                 | 89.7                                                                 | 13.5                                                             | 40.1                                                                                               | 37.3                                                                                                            |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>99.5</b>                                                          | <b>73.6</b>                                                      | <b>83.3</b>                                                                                        | <b>79.8</b>                                                                                                     |
|                                                                                | 2022                 | 98.2                                                                 | 65.3                                                             | 81.6                                                                                               | 75.9                                                                                                            |
|                                                                                | 2015                 | 93.5                                                                 | 14.2                                                             | 45.2                                                                                               | 43.4                                                                                                            |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>98.1</b>                                                          | <b>76.2</b>                                                      | <b>85.6</b>                                                                                        | <b>82.5</b>                                                                                                     |
|                                                                                | 2022                 | 96.5                                                                 | 75.8                                                             | 80.8                                                                                               | 81.6                                                                                                            |
|                                                                                | 2015                 | 93.6                                                                 | 12.3                                                             | 47.0                                                                                               | 66.1                                                                                                            |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>94.1</b>                                                          | <b>69.9</b>                                                      | <b>76.8</b>                                                                                        | <b>80.0</b>                                                                                                     |
|                                                                                | 2022                 | 93.2                                                                 | 68.4                                                             | 76.3                                                                                               | 78.6                                                                                                            |
|                                                                                | 2015                 | 90.0                                                                 | 18.6                                                             | 42.2                                                                                               | 38.9                                                                                                            |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>96.4</b>                                                          | <b>76.8</b>                                                      | <b>82.2</b>                                                                                        | <b>82.7</b>                                                                                                     |
|                                                                                | 2022                 | 95.9                                                                 | 75.6                                                             | 81.6                                                                                               | 81.9                                                                                                            |
|                                                                                | 2015                 | 67.2                                                                 | 19.2                                                             | 35.3                                                                                               | 36.5                                                                                                            |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>100.0</b>                                                         | <b>59.3</b>                                                      | <b>75.7</b>                                                                                        | <b>79.8</b>                                                                                                     |
|                                                                                | 2022                 | 98.6                                                                 | 57.0                                                             | 73.7                                                                                               | 73.5                                                                                                            |
|                                                                                | 2015                 | 94.1                                                                 | 25.8                                                             | 45.6                                                                                               | 45.7                                                                                                            |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>96.3</b>                                                          | <b>75.4</b>                                                      | <b>82.4</b>                                                                                        | <b>83.9</b>                                                                                                     |
|                                                                                | 2022                 | 96.0                                                                 | 75.0                                                             | 82.0                                                                                               | 83.6                                                                                                            |
|                                                                                | 2015                 | 54.3                                                                 | 20.1                                                             | 30.7                                                                                               | 36.1                                                                                                            |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>98.8</b>                                                          | <b>89.7</b>                                                      | <b>89.0</b>                                                                                        | <b>83.3</b>                                                                                                     |
|                                                                                | 2022                 | 98.1                                                                 | 86.6                                                             | 88.5                                                                                               | 79.8                                                                                                            |
|                                                                                | 2015                 | 91.5                                                                 | 16.1                                                             | 29.9                                                                                               | 20.2                                                                                                            |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>99.8</b>                                                          | <b>57.7</b>                                                      | <b>82.9</b>                                                                                        | <b>89.5</b>                                                                                                     |
|                                                                                | 2022                 | 99.7                                                                 | 56.8                                                             | 81.8                                                                                               | 88.6                                                                                                            |
|                                                                                | 2015                 | 93.3                                                                 | 20.3                                                             | 41.6                                                                                               | 36.5                                                                                                            |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>94.1</b>                                                          | <b>84.4</b>                                                      | <b>86.3</b>                                                                                        | <b>82.2</b>                                                                                                     |
|                                                                                | 2022                 | 93.5                                                                 | 82.0                                                             | 85.5                                                                                               | 80.8                                                                                                            |
|                                                                                | 2015                 | 78.9                                                                 | 10.8                                                             | 22.8                                                                                               | 31.7                                                                                                            |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>100.0</b>                                                         | <b>94.1</b>                                                      | <b>91.7</b>                                                                                        | <b>85.7</b>                                                                                                     |
|                                                                                | 2022                 | 99.0                                                                 | 92.1                                                             | 90.3                                                                                               | 82.2                                                                                                            |
|                                                                                | 2015                 | 100.0                                                                | 29.0                                                             | 99.9                                                                                               | 42.0                                                                                                            |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>100.0</b>                                                         | <b>69.4</b>                                                      | <b>66.6</b>                                                                                        | <b>71.2</b>                                                                                                     |
|                                                                                | 2022                 | 99.9                                                                 | 69.0                                                             | 66.4                                                                                               | 70.8                                                                                                            |
|                                                                                | 2015                 | 99.6                                                                 | 12.1                                                             | 39.1                                                                                               | 13.6                                                                                                            |

**Jadual 5: Tujuan Penggunaan Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
*Table 5: Purpose of Internet Usage by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                              | Tahun<br><i>Year</i> | Menghantar atau menerima e-mel<br><i>Sending or receiving e-mail</i> | Telefon melalui internet<br><i>Telephoning over the internet</i> | Menghantar informasi atau pesanan dengan segera<br><i>Posting information or instant messaging</i> | Mendapatkan maklumat berkenaan barangan atau perkhidmatan<br><i>Getting information about goods or services</i> |
|---------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                                                                                             |                      | %                                                                    | %                                                                | %                                                                                                  | %                                                                                                               |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>          | <b>96.3</b>                                                          | <b>74.8</b>                                                      | <b>73.6</b>                                                                                        | <b>75.8</b>                                                                                                     |
|                                                                                             | 2022                 | 95.4                                                                 | 71.2                                                             | 72.9                                                                                               | 74.3                                                                                                            |
|                                                                                             | 2015                 | 94.0                                                                 | 24.3                                                             | 40.1                                                                                               | 83.3                                                                                                            |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>          | <b>98.4</b>                                                          | <b>74.1</b>                                                      | <b>89.9</b>                                                                                        | <b>84.5</b>                                                                                                     |
|                                                                                             | 2022                 | 97.7                                                                 | 73.2                                                             | 88.8                                                                                               | 83.8                                                                                                            |
|                                                                                             | 2015                 | 94.3                                                                 | 29.9                                                             | 48.7                                                                                               | 41.8                                                                                                            |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>          | <b>93.1</b>                                                          | <b>76.2</b>                                                      | <b>85.1</b>                                                                                        | <b>91.2</b>                                                                                                     |
|                                                                                             | 2022                 | 92.8                                                                 | 75.2                                                             | 84.1                                                                                               | 90.1                                                                                                            |
|                                                                                             | 2015                 | 91.4                                                                 | 31.3                                                             | 48.1                                                                                               | 36.1                                                                                                            |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>          | <b>97.5</b>                                                          | <b>97.5</b>                                                      | <b>81.2</b>                                                                                        | <b>82.6</b>                                                                                                     |
|                                                                                             | 2022                 | 97.0                                                                 | 96.1                                                             | 80.2                                                                                               | 82.4                                                                                                            |
|                                                                                             | 2015                 | 89.5                                                                 | 17.9                                                             | 37.2                                                                                               | 32.3                                                                                                            |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b>          | <b>95.7</b>                                                          | <b>73.3</b>                                                      | <b>80.5</b>                                                                                        | <b>78.5</b>                                                                                                     |
|                                                                                             | 2022                 | 94.5                                                                 | 73.3                                                             | 79.8                                                                                               | 78.2                                                                                                            |
|                                                                                             | 2015                 | 90.2                                                                 | 20.9                                                             | 43.7                                                                                               | 35.1                                                                                                            |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>          | <b>97.3</b>                                                          | <b>67.9</b>                                                      | <b>76.4</b>                                                                                        | <b>92.7</b>                                                                                                     |
|                                                                                             | 2022                 | 96.0                                                                 | 64.5                                                             | 73.1                                                                                               | 90.5                                                                                                            |
|                                                                                             | 2015                 | 70.0                                                                 | 21.5                                                             | 34.3                                                                                               | 24.0                                                                                                            |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>          | <b>95.1</b>                                                          | <b>67.3</b>                                                      | <b>72.0</b>                                                                                        | <b>76.5</b>                                                                                                     |
|                                                                                             | 2022                 | 93.6                                                                 | 65.1                                                             | 69.8                                                                                               | 74.5                                                                                                            |
|                                                                                             | 2015                 | 83.8                                                                 | 19.8                                                             | 52.6                                                                                               | 37.9                                                                                                            |



**Jadual 5: Tujuan Penggunaan Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
*Table 5: Purpose of Internet Usage by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Mendapatkan maklumat dari organisasi kerajaan<br><i>Getting information from government organisations</i> | Berhubung dengan organisasi kerajaan<br><i>Interacting with government organisations</i> | Perbankan melalui Internet<br><i>Internet banking</i> | Mengakses perkhidmatan kewangan yang lain<br><i>Accessing other financial services</i> |
|--------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                |                      | %                                                                                                         | %                                                                                        | %                                                     | %                                                                                      |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>69.3</b>                                                                                               | <b>63.8</b>                                                                              | <b>91.4</b>                                           | <b>43.9</b>                                                                            |
|                                                                                | 2022                 | 68.6                                                                                                      | 63.2                                                                                     | 90.2                                                  | 42.3                                                                                   |
|                                                                                | 2015                 | 23.5                                                                                                      | 16.5                                                                                     | 41.3                                                  | 9.9                                                                                    |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>75.6</b>                                                                                               | <b>68.9</b>                                                                              | <b>93.9</b>                                           | <b>49.5</b>                                                                            |
|                                                                                | 2022                 | 73.2                                                                                                      | 65.8                                                                                     | 90.1                                                  | 43.3                                                                                   |
|                                                                                | 2015                 | 42.6                                                                                                      | 31.6                                                                                     | 34.2                                                  | 6.8                                                                                    |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>70.4</b>                                                                                               | <b>70.4</b>                                                                              | <b>79.8</b>                                           | <b>45.9</b>                                                                            |
|                                                                                | 2022                 | 65.2                                                                                                      | 64.0                                                                                     | 79.3                                                  | 44.0                                                                                   |
|                                                                                | 2015                 | 39.5                                                                                                      | 26.5                                                                                     | 43.4                                                  | 9.9                                                                                    |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>70.8</b>                                                                                               | <b>66.5</b>                                                                              | <b>94.5</b>                                           | <b>45.6</b>                                                                            |
|                                                                                | 2022                 | 69.9                                                                                                      | 66.4                                                                                     | 90.3                                                  | 44.2                                                                                   |
|                                                                                | 2015                 | 48.4                                                                                                      | 23.4                                                                                     | 76.1                                                  | 9.8                                                                                    |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>72.6</b>                                                                                               | <b>60.6</b>                                                                              | <b>86.9</b>                                           | <b>39.5</b>                                                                            |
|                                                                                | 2022                 | 72.5                                                                                                      | 59.9                                                                                     | 86.3                                                  | 38.9                                                                                   |
|                                                                                | 2015                 | 30.8                                                                                                      | 22.6                                                                                     | 44.5                                                  | 7.1                                                                                    |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>68.8</b>                                                                                               | <b>63.9</b>                                                                              | <b>91.7</b>                                           | <b>44.2</b>                                                                            |
|                                                                                | 2022                 | 68.2                                                                                                      | 63.3                                                                                     | 90.6                                                  | 42.4                                                                                   |
|                                                                                | 2015                 | 20.6                                                                                                      | 15.4                                                                                     | 38.1                                                  | 10.1                                                                                   |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>78.8</b>                                                                                               | <b>66.8</b>                                                                              | <b>80.6</b>                                           | <b>37.4</b>                                                                            |
|                                                                                | 2022                 | 74.1                                                                                                      | 64.2                                                                                     | 77.5                                                  | 33.4                                                                                   |
|                                                                                | 2015                 | 41.7                                                                                                      | 28.0                                                                                     | 43.0                                                  | 11.2                                                                                   |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>65.9</b>                                                                                               | <b>61.4</b>                                                                              | <b>90.5</b>                                           | <b>38.3</b>                                                                            |
|                                                                                | 2022                 | 65.6                                                                                                      | 61.2                                                                                     | 90.0                                                  | 38.2                                                                                   |
|                                                                                | 2015                 | 14.6                                                                                                      | 8.7                                                                                      | 32.3                                                  | 9.2                                                                                    |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>79.2</b>                                                                                               | <b>77.8</b>                                                                              | <b>91.2</b>                                           | <b>50.7</b>                                                                            |
|                                                                                | 2022                 | 75.8                                                                                                      | 74.9                                                                                     | 90.1                                                  | 44.9                                                                                   |
|                                                                                | 2015                 | 16.4                                                                                                      | 14.0                                                                                     | 27.8                                                  | 4.6                                                                                    |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>83.9</b>                                                                                               | <b>79.6</b>                                                                              | <b>92.2</b>                                           | <b>27.7</b>                                                                            |
|                                                                                | 2022                 | 81.3                                                                                                      | 78.2                                                                                     | 91.4                                                  | 26.6                                                                                   |
|                                                                                | 2015                 | 35.5                                                                                                      | 28.8                                                                                     | 51.1                                                  | 10.1                                                                                   |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>70.3</b>                                                                                               | <b>58.9</b>                                                                              | <b>93.7</b>                                           | <b>40.9</b>                                                                            |
|                                                                                | 2022                 | 69.8                                                                                                      | 58.2                                                                                     | 90.9                                                  | 39.9                                                                                   |
|                                                                                | 2015                 | 12.1                                                                                                      | 9.2                                                                                      | 26.2                                                  | 8.9                                                                                    |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>76.5</b>                                                                                               | <b>71.9</b>                                                                              | <b>97.9</b>                                           | <b>72.7</b>                                                                            |
|                                                                                | 2022                 | 74.0                                                                                                      | 71.0                                                                                     | 95.6                                                  | 68.9                                                                                   |
|                                                                                | 2015                 | 23.4                                                                                                      | 20.1                                                                                     | 61.1                                                  | 12.7                                                                                   |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>54.9</b>                                                                                               | <b>48.4</b>                                                                              | <b>100.0</b>                                          | <b>97.1</b>                                                                            |
|                                                                                | 2022                 | 54.6                                                                                                      | 48.2                                                                                     | 100.0                                                 | 96.8                                                                                   |
|                                                                                | 2015                 | 49.7                                                                                                      | 47.4                                                                                     | 96.2                                                  | 40.3                                                                                   |

**Jadual 5: Tujuan Penggunaan Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
*Table 5: Purpose of Internet Usage by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                              | Tahun<br><i>Year</i> | Mendapatkan maklumat dari organisasi kerajaan<br><i>Getting information from government organisations</i> | Berhubung dengan organisasi kerajaan<br><i>Interacting with government organisations</i> | Perbankan melalui Internet<br><i>Internet banking</i> | Mengakses perkhidmatan kewangan yang lain<br><i>Accessing other financial services</i> |
|---------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                             |                      | %                                                                                                         | %                                                                                        | %                                                     | %                                                                                      |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>          | <b>77.8</b>                                                                                               | <b>74.2</b>                                                                              | <b>99.2</b>                                           | <b>45.8</b>                                                                            |
|                                                                                             | 2022                 | 75.1                                                                                                      | 72.3                                                                                     | 98.1                                                  | 43.2                                                                                   |
|                                                                                             | 2015                 | 29.9                                                                                                      | 73.9                                                                                     | 90.4                                                  | 7.5                                                                                    |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>          | <b>82.3</b>                                                                                               | <b>77.5</b>                                                                              | <b>92.1</b>                                           | <b>45.0</b>                                                                            |
|                                                                                             | 2022                 | 80.9                                                                                                      | 75.6                                                                                     | 90.4                                                  | 43.7                                                                                   |
|                                                                                             | 2015                 | 34.5                                                                                                      | 29.0                                                                                     | 46.2                                                  | 13.0                                                                                   |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>          | <b>73.1</b>                                                                                               | <b>80.1</b>                                                                              | <b>90.9</b>                                           | <b>51.1</b>                                                                            |
|                                                                                             | 2022                 | 72.1                                                                                                      | 79.9                                                                                     | 90.7                                                  | 50.4                                                                                   |
|                                                                                             | 2015                 | 24.4                                                                                                      | 21.3                                                                                     | 39.2                                                  | 8.8                                                                                    |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>          | <b>74.8</b>                                                                                               | <b>72.7</b>                                                                              | <b>90.4</b>                                           | <b>48.4</b>                                                                            |
|                                                                                             | 2022                 | 74.1                                                                                                      | 70.9                                                                                     | 89.3                                                  | 47.2                                                                                   |
|                                                                                             | 2015                 | 29.0                                                                                                      | 20.4                                                                                     | 33.3                                                  | 8.9                                                                                    |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b>          | <b>76.2</b>                                                                                               | <b>74.2</b>                                                                              | <b>91.1</b>                                           | <b>64.7</b>                                                                            |
|                                                                                             | 2022                 | 75.6                                                                                                      | 73.6                                                                                     | 90.3                                                  | 63.8                                                                                   |
|                                                                                             | 2015                 | 31.1                                                                                                      | 22.5                                                                                     | 47.9                                                  | 8.0                                                                                    |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>          | <b>76.7</b>                                                                                               | <b>68.1</b>                                                                              | <b>87.4</b>                                           | <b>44.9</b>                                                                            |
|                                                                                             | 2022                 | 73.5                                                                                                      | 66.0                                                                                     | 85.0                                                  | 40.0                                                                                   |
|                                                                                             | 2015                 | 15.8                                                                                                      | 11.0                                                                                     | 34.8                                                  | 6.1                                                                                    |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>          | <b>62.3</b>                                                                                               | <b>53.2</b>                                                                              | <b>88.1</b>                                           | <b>31.2</b>                                                                            |
|                                                                                             | 2022                 | 60.1                                                                                                      | 51.9                                                                                     | 86.2                                                  | 29.5                                                                                   |
|                                                                                             | 2015                 | 27.7                                                                                                      | 23.4                                                                                     | 41.4                                                  | 4.2                                                                                    |



**Jadual 5: Tujuan Penggunaan Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
*Table 5: Purpose of Internet Usage by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                 | Tahun<br><i>Year</i> | Penyediaan perkhidmatan pelanggan<br><i>Providing customer services</i> | Penghantaran produk secara atas talian<br><i>Delivering products online</i> | Pemberitahuan jawatan kosong dalaman atau luaran<br><i>Internal or external recruitment</i> | Latihan untuk kakitangan (aplikasi e-pembelajaran)<br><i>Staff training (e-learning application)</i> | Lain- lain<br><i>Others</i> |
|--------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------|
|                                                                                |                      | %                                                                       | %                                                                           | %                                                                                           | %                                                                                                    | %                           |
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>          | <b>47.9</b>                                                             | <b>37.8</b>                                                                 | <b>53.9</b>                                                                                 | <b>25.0</b>                                                                                          | <b>12.4</b>                 |
|                                                                                | 2022                 | 46.8                                                                    | 36.8                                                                        | 53.1                                                                                        | 24.2                                                                                                 | 11.6                        |
|                                                                                | 2015                 | 10.3                                                                    | 5.7                                                                         | 10.8                                                                                        | 2.5                                                                                                  | 12.5                        |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>          | <b>28.8</b>                                                             | <b>26.2</b>                                                                 | <b>19.0</b>                                                                                 | <b>23.3</b>                                                                                          | <b>16.9</b>                 |
|                                                                                | 2022                 | 26.3                                                                    | 24.6                                                                        | 17.3                                                                                        | 20.0                                                                                                 | 15.4                        |
|                                                                                | 2015                 | 4.9                                                                     | 1.6                                                                         | 6.8                                                                                         | 3.3                                                                                                  | 20.9                        |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>          | <b>32.0</b>                                                             | <b>28.0</b>                                                                 | <b>54.1</b>                                                                                 | <b>25.5</b>                                                                                          | <b>9.9</b>                  |
|                                                                                | 2022                 | 29.5                                                                    | 27.9                                                                        | 53.8                                                                                        | 23.3                                                                                                 | 7.9                         |
|                                                                                | 2015                 | 7.1                                                                     | 7.4                                                                         | 9.5                                                                                         | 4.6                                                                                                  | 19.2                        |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>          | <b>49.4</b>                                                             | <b>34.3</b>                                                                 | <b>58.1</b>                                                                                 | <b>20.0</b>                                                                                          | <b>13.3</b>                 |
|                                                                                | 2022                 | 48.0                                                                    | 32.3                                                                        | 52.6                                                                                        | 19.8                                                                                                 | 11.2                        |
|                                                                                | 2015                 | 11.0                                                                    | 14.9                                                                        | 10.2                                                                                        | 3.2                                                                                                  | 12.8                        |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>          | <b>37.0</b>                                                             | <b>24.0</b>                                                                 | <b>37.6</b>                                                                                 | <b>17.0</b>                                                                                          | <b>11.9</b>                 |
|                                                                                | 2022                 | 36.7                                                                    | 23.5                                                                        | 36.9                                                                                        | 16.9                                                                                                 | 11.8                        |
|                                                                                | 2015                 | 3.3                                                                     | 1.5                                                                         | 6.5                                                                                         | 2.4                                                                                                  | 24.0                        |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>          | <b>49.2</b>                                                             | <b>39.6</b>                                                                 | <b>55.7</b>                                                                                 | <b>26.1</b>                                                                                          | <b>12.4</b>                 |
|                                                                                | 2022                 | 47.8                                                                    | 38.3                                                                        | 54.9                                                                                        | 25.1                                                                                                 | 11.5                        |
|                                                                                | 2015                 | 10.7                                                                    | 5.1                                                                         | 11.2                                                                                        | 2.4                                                                                                  | 11.7                        |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>          | <b>39.0</b>                                                             | <b>33.6</b>                                                                 | <b>59.8</b>                                                                                 | <b>26.9</b>                                                                                          | <b>12.4</b>                 |
|                                                                                | 2022                 | 38.1                                                                    | 29.2                                                                        | 57.6                                                                                        | 21.8                                                                                                 | 11.1                        |
|                                                                                | 2015                 | 9.5                                                                     | 2.4                                                                         | 8.0                                                                                         | 1.5                                                                                                  | 20.2                        |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>          | <b>47.8</b>                                                             | <b>40.6</b>                                                                 | <b>51.6</b>                                                                                 | <b>25.8</b>                                                                                          | <b>11.2</b>                 |
|                                                                                | 2022                 | 47.5                                                                    | 40.0                                                                        | 51.4                                                                                        | 25.7                                                                                                 | 11.0                        |
|                                                                                | 2015                 | 6.6                                                                     | 5.6                                                                         | 7.7                                                                                         | 1.3                                                                                                  | 12.2                        |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>          | <b>61.3</b>                                                             | <b>45.5</b>                                                                 | <b>59.1</b>                                                                                 | <b>35.2</b>                                                                                          | <b>13.7</b>                 |
|                                                                                | 2022                 | 51.9                                                                    | 42.3                                                                        | 50.9                                                                                        | 31.1                                                                                                 | 9.0                         |
|                                                                                | 2015                 | 5.5                                                                     | 1.8                                                                         | 3.6                                                                                         | 1.6                                                                                                  | 9.6                         |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>          | <b>62.4</b>                                                             | <b>38.1</b>                                                                 | <b>55.3</b>                                                                                 | <b>23.6</b>                                                                                          | <b>5.1</b>                  |
|                                                                                | 2022                 | 60.2                                                                    | 37.5                                                                        | 53.3                                                                                        | 20.6                                                                                                 | 4.2                         |
|                                                                                | 2015                 | 22.4                                                                    | 14.4                                                                        | 9.4                                                                                         | 3.1                                                                                                  | 16.9                        |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>          | <b>46.4</b>                                                             | <b>42.8</b>                                                                 | <b>62.5</b>                                                                                 | <b>32.4</b>                                                                                          | <b>20.2</b>                 |
|                                                                                | 2022                 | 45.9                                                                    | 40.2                                                                        | 61.1                                                                                        | 30.1                                                                                                 | 19.6                        |
|                                                                                | 2015                 | 10.1                                                                    | 5.9                                                                         | 10.4                                                                                        | 1.4                                                                                                  | 8.5                         |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>          | <b>77.6</b>                                                             | <b>51.8</b>                                                                 | <b>62.3</b>                                                                                 | <b>39.7</b>                                                                                          | <b>17.1</b>                 |
|                                                                                | 2022                 | 74.8                                                                    | 45.3                                                                        | 61.5                                                                                        | 36.8                                                                                                 | 15.3                        |
|                                                                                | 2015                 | 16.7                                                                    | 7.3                                                                         | 12.2                                                                                        | 7.2                                                                                                  | 13.9                        |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>          | <b>62.7</b>                                                             | <b>35.2</b>                                                                 | <b>55.5</b>                                                                                 | <b>11.7</b>                                                                                          | <b>16.1</b>                 |
|                                                                                | 2022                 | 62.5                                                                    | 34.7                                                                        | 55.4                                                                                        | 11.6                                                                                                 | 16.0                        |
|                                                                                | 2015                 | 76.3                                                                    | 4.7                                                                         | 32.9                                                                                        | 23.3                                                                                                 | 0.9                         |

**Jadual 5: Tujuan Penggunaan Internet mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
*Table 5: Purpose of Internet Usage by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                              | Tahun<br><i>Year</i> | Penyediaan perkhidmatan pelanggan<br><i>Providing customer services</i> | Penghantaran produk secara atas talian<br><i>Delivering products online</i> | Pemberitahuan jawatan kosong dalaman atau luaran<br><i>Internal or external recruitment</i> | Latihan untuk kakitangan (aplikasi e-pembelajaran)<br><i>Staff training (e-learning application)</i> | Lain- lain<br><i>Others</i> |
|---------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------|
|                                                                                             |                      | %                                                                       | %                                                                           | %                                                                                           | %                                                                                                    | %                           |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>          | <b>31.3</b>                                                             | <b>37.3</b>                                                                 | <b>47.2</b>                                                                                 | <b>13.7</b>                                                                                          | <b>10.7</b>                 |
|                                                                                             | 2022                 | 29.2                                                                    | 35.1                                                                        | 44.9                                                                                        | 10.1                                                                                                 | 9.3                         |
|                                                                                             | 2015                 | 10.5                                                                    | 4.3                                                                         | 29.3                                                                                        | 0.5                                                                                                  | 0.4                         |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>          | <b>52.7</b>                                                             | <b>33.4</b>                                                                 | <b>57.5</b>                                                                                 | <b>22.5</b>                                                                                          | <b>5.2</b>                  |
|                                                                                             | 2022                 | 51.2                                                                    | 32.9                                                                        | 56.3                                                                                        | 20.1                                                                                                 | 4.2                         |
|                                                                                             | 2015                 | 13.5                                                                    | 4.1                                                                         | 9.7                                                                                         | 3.7                                                                                                  | 15.3                        |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>          | <b>51.2</b>                                                             | <b>36.2</b>                                                                 | <b>54.9</b>                                                                                 | <b>21.7</b>                                                                                          | <b>16.0</b>                 |
|                                                                                             | 2022                 | 50.2                                                                    | 35.3                                                                        | 54.9                                                                                        | 21.0                                                                                                 | 15.6                        |
|                                                                                             | 2015                 | 12.3                                                                    | 2.9                                                                         | 6.6                                                                                         | 2.0                                                                                                  | 18.3                        |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>          | <b>52.1</b>                                                             | <b>32.1</b>                                                                 | <b>66.0</b>                                                                                 | <b>52.7</b>                                                                                          | <b>12.9</b>                 |
|                                                                                             | 2022                 | 51.3                                                                    | 30.6                                                                        | 65.4                                                                                        | 51.0                                                                                                 | 11.1                        |
|                                                                                             | 2015                 | 11.7                                                                    | 4.1                                                                         | 11.2                                                                                        | 5.6                                                                                                  | 13.7                        |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b>          | <b>54.8</b>                                                             | <b>47.9</b>                                                                 | <b>65.8</b>                                                                                 | <b>19.1</b>                                                                                          | <b>12.3</b>                 |
|                                                                                             | 2022                 | 54.4                                                                    | 47.0                                                                        | 65.6                                                                                        | 18.7                                                                                                 | 11.7                        |
|                                                                                             | 2015                 | 14.1                                                                    | 2.2                                                                         | 8.3                                                                                         | 3.4                                                                                                  | 15.9                        |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>          | <b>43.5</b>                                                             | <b>33.6</b>                                                                 | <b>43.7</b>                                                                                 | <b>23.2</b>                                                                                          | <b>27.9</b>                 |
|                                                                                             | 2022                 | 41.2                                                                    | 30.9                                                                        | 40.4                                                                                        | 21.3                                                                                                 | 25.9                        |
|                                                                                             | 2015                 | 16.5                                                                    | 5.2                                                                         | 4.0                                                                                         | 1.4                                                                                                  | 26.1                        |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>          | <b>35.7</b>                                                             | <b>31.0</b>                                                                 | <b>69.3</b>                                                                                 | <b>23.3</b>                                                                                          | <b>7.0</b>                  |
|                                                                                             | 2022                 | 32.5                                                                    | 27.9                                                                        | 67.9                                                                                        | 20.5                                                                                                 | 5.2                         |
|                                                                                             | 2015                 | 21.5                                                                    | 2.3                                                                         | 16.9                                                                                        | 1.5                                                                                                  | 11.6                        |



**Jadual 6: Penggunaan Teknologi Digital mengikut Sektor/ Subsektor, 2022 dan 2023**  
*Table 6: Usage of Digital Technology by Sector/ Sub-sector, 2022 and 2023*

| Sektor/ Subsektor<br><i>Sector/ Sub-sector</i>                                              | Tahun<br><i>Year</i> | Laman web<br><i>Website</i> | Media sosial<br><i>Social media</i> | Internet mudah<br>alih dan teknologi<br><i>Mobile internet and<br/>technologies</i> | Pengkomputeran<br>awan<br><i>Cloud computing</i> |
|---------------------------------------------------------------------------------------------|----------------------|-----------------------------|-------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------|
|                                                                                             |                      | %                           | %                                   | %                                                                                   | %                                                |
| <b>Jumlah</b><br><i>Total</i>                                                               | <b>2023</b><br>2022  | <b>56.2</b><br>54.7         | <b>70.6</b><br>70.2                 | <b>73.6</b><br>72.4                                                                 | <b>59.8</b><br>58.5                              |
| <b>Pertanian</b><br><i>Agriculture</i>                                                      | <b>2023</b><br>2022  | <b>57.8</b><br>56.9         | <b>67.8</b><br>67.0                 | <b>68.3</b><br>64.0                                                                 | <b>66.2</b><br>63.9                              |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>                          | <b>2023</b><br>2022  | <b>62.3</b><br>55.5         | <b>64.4</b><br>56.8                 | <b>60.8</b><br>56.2                                                                 | <b>70.9</b><br>67.7                              |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                                    | <b>2023</b><br>2022  | <b>72.7</b><br>66.2         | <b>79.8</b><br>81.9                 | <b>69.2</b><br>68.1                                                                 | <b>58.8</b><br>55.6                              |
| <b>Pembinaan</b><br><i>Construction</i>                                                     | <b>2023</b><br>2022  | <b>58.1</b><br>57.8         | <b>54.7</b><br>54.6                 | <b>63.7</b><br>63.7                                                                 | <b>58.9</b><br>58.6                              |
| <b>Perkhidmatan</b><br><i>Services</i>                                                      | <b>2023</b><br>2022  | <b>54.9</b><br>53.8         | <b>71.6</b><br>70.7                 | <b>75.0</b><br>73.4                                                                 | <b>59.8</b><br>58.5                              |
| <b>Utiliti</b><br><i>Utility</i>                                                            | <b>2023</b><br>2022  | <b>42.3</b><br>41.5         | <b>88.6</b><br>86.4                 | <b>75.2</b><br>72.7                                                                 | <b>62.1</b><br>59.8                              |
| <b>Perdagangan borong dan runcit</b><br><i>Wholesale and retail trade</i>                   | <b>2023</b><br>2022  | <b>52.6</b><br>52.3         | <b>69.7</b><br>69.3                 | <b>75.5</b><br>75.0                                                                 | <b>58.9</b><br>58.7                              |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>                    | <b>2023</b><br>2022  | <b>79.7</b><br>73.8         | <b>63.0</b><br>57.0                 | <b>87.5</b><br>83.6                                                                 | <b>79.2</b><br>71.8                              |
| <b>Penginapan</b><br><i>Accommodation</i>                                                   | <b>2023</b><br>2022  | <b>55.0</b><br>52.7         | <b>80.1</b><br>79.2                 | <b>63.5</b><br>59.3                                                                 | <b>53.6</b><br>52.2                              |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                                     | <b>2023</b><br>2022  | <b>53.1</b><br>50.7         | <b>92.9</b><br>90.3                 | <b>67.8</b><br>66.5                                                                 | <b>41.0</b><br>40.3                              |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>                      | <b>2023</b><br>2022  | <b>92.8</b><br>89.2         | <b>96.5</b><br>95.3                 | <b>97.6</b><br>95.4                                                                 | <b>71.9</b><br>70.3                              |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i>              | <b>2023</b><br>2022  | <b>50.1</b><br>50.0         | <b>50.9</b><br>50.5                 | <b>82.6</b><br>82.3                                                                 | <b>65.0</b><br>65.0                              |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b><br>2022  | <b>51.3</b><br>48.5         | <b>73.2</b><br>71.5                 | <b>79.8</b><br>76.6                                                                 | <b>59.9</b><br>58.8                              |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b><br>2022  | <b>63.7</b><br>62.8         | <b>66.2</b><br>65.9                 | <b>80.4</b><br>78.0                                                                 | <b>76.6</b><br>74.5                              |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b><br>2022  | <b>21.0</b><br>20.6         | <b>82.2</b><br>81.5                 | <b>77.2</b><br>76.3                                                                 | <b>69.2</b><br>68.2                              |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b><br>2022  | <b>66.7</b><br>65.8         | <b>81.7</b><br>80.0                 | <b>88.7</b><br>86.7                                                                 | <b>72.5</b><br>70.8                              |
| <b>Kesihatan Kemanusiaan<br/>dan Kerja Sosial</b><br><i>Human Health and Social Work</i>    | <b>2023</b><br>2022  | <b>60.9</b><br>60.3         | <b>67.8</b><br>67.1                 | <b>79.3</b><br>79.2                                                                 | <b>86.8</b><br>86.4                              |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Art, Entertainment and Recreation</i>           | <b>2023</b><br>2022  | <b>67.6</b><br>65.4         | <b>75.5</b><br>73.5                 | <b>63.9</b><br>61.5                                                                 | <b>66.9</b><br>64.6                              |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b><br>2022  | <b>55.8</b><br>52.1         | <b>56.1</b><br>54.5                 | <b>48.4</b><br>47.3                                                                 | <b>42.6</b><br>41.2                              |

**Jadual 6: Penggunaan Teknologi Digital mengikut Sektor/ Subsektor, 2022 dan 2023 (samb)**  
**Table 6: Usage of Digital Technology by Sector/ Sub-sector, 2022 and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Tahun<br>Year       | Analitik data<br>Data analytics | Perisian<br>pengurusan<br>Management software | Platform kolaborasi<br>atas talian<br>Online collaborative<br>platforms | Lain-lain<br>Others |
|---------------------------------------------------------------------------------------------|---------------------|---------------------------------|-----------------------------------------------|-------------------------------------------------------------------------|---------------------|
|                                                                                             |                     | %                               | %                                             | %                                                                       | %                   |
| <b>Jumlah</b><br><i>Total</i>                                                               | <b>2023</b><br>2022 | <b>24.2</b><br>23.7             | <b>51.4</b><br>50.7                           | <b>25.7</b><br>24.7                                                     | <b>4.0</b><br>2.4   |
| <b>Pertanian</b><br><i>Agriculture</i>                                                      | <b>2023</b><br>2022 | <b>18.5</b><br>17.2             | <b>49.7</b><br>48.1                           | <b>30.8</b><br>27.1                                                     | <b>5.0</b><br>3.4   |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>                          | <b>2023</b><br>2022 | <b>26.2</b><br>25.1             | <b>54.7</b><br>53.6                           | <b>42.1</b><br>41.9                                                     | <b>4.9</b><br>0.2   |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                                    | <b>2023</b><br>2022 | <b>19.7</b><br>17.3             | <b>57.2</b><br>53.9                           | <b>28.9</b><br>27.1                                                     | <b>4.2</b><br>2.9   |
| <b>Pembinaan</b><br><i>Construction</i>                                                     | <b>2023</b><br>2022 | <b>20.7</b><br>20.3             | <b>47.4</b><br>47.3                           | <b>30.2</b><br>30.2                                                     | <b>1.2</b><br>1.2   |
| <b>Perkhidmatan</b><br><i>Services</i>                                                      | <b>2023</b><br>2022 | <b>24.9</b><br>24.4             | <b>51.4</b><br>50.8                           | <b>24.9</b><br>24.1                                                     | <b>4.3</b><br>2.5   |
| <b>Utiliti</b><br><i>Utility</i>                                                            | <b>2023</b><br>2022 | <b>27.9</b><br>25.2             | <b>44.3</b><br>40.4                           | <b>34.7</b><br>29.8                                                     | <b>8.0</b><br>1.4   |
| <b>Perdagangan borong dan runcit</b><br><i>Wholesale and retail trade</i>                   | <b>2023</b><br>2022 | <b>21.1</b><br>21.0             | <b>50.8</b><br>50.7                           | <b>21.8</b><br>21.7                                                     | <b>2.8</b><br>2.6   |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>                    | <b>2023</b><br>2022 | <b>39.4</b><br>37.0             | <b>55.1</b><br>54.4                           | <b>38.7</b><br>35.1                                                     | <b>10.1</b><br>0.0  |
| <b>Penginapan</b><br><i>Accommodation</i>                                                   | <b>2023</b><br>2022 | <b>29.1</b><br>28.1             | <b>63.9</b><br>60.3                           | <b>37.8</b><br>36.7                                                     | <b>5.3</b><br>0.8   |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                                     | <b>2023</b><br>2022 | <b>32.6</b><br>30.4             | <b>40.2</b><br>39.9                           | <b>28.7</b><br>28.0                                                     | <b>6.4</b><br>2.5   |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>                      | <b>2023</b><br>2022 | <b>32.4</b><br>30.6             | <b>88.4</b><br>85.2                           | <b>35.7</b><br>30.7                                                     | <b>6.3</b><br>0.0   |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i>              | <b>2023</b><br>2022 | <b>15.1</b><br>15.0             | <b>52.6</b><br>52.0                           | <b>35.3</b><br>35.0                                                     | <b>5.8</b><br>4.7   |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b><br>2022 | <b>30.1</b><br>28.8             | <b>52.1</b><br>50.2                           | <b>35.7</b><br>32.2                                                     | <b>5.7</b><br>0.3   |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b><br>2022 | <b>20.9</b><br>19.4             | <b>58.9</b><br>57.6                           | <b>15.7</b><br>14.4                                                     | <b>2.5</b><br>2.2   |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b><br>2022 | <b>26.2</b><br>25.2             | <b>46.2</b><br>45.8                           | <b>23.2</b><br>22.0                                                     | <b>10.0</b><br>8.2  |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b><br>2022 | <b>20.3</b><br>19.6             | <b>54.9</b><br>53.6                           | <b>29.8</b><br>28.2                                                     | <b>7.0</b><br>0.1   |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b><br>2022 | <b>44.5</b><br>43.8             | <b>48.3</b><br>48.1                           | <b>23.5</b><br>23.3                                                     | <b>5.5</b><br>1.2   |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Art, Entertainment and Recreation</i>           | <b>2023</b><br>2022 | <b>51.5</b><br>49.7             | <b>59.0</b><br>57.5                           | <b>19.5</b><br>14.0                                                     | <b>3.4</b><br>1.6   |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b><br>2022 | <b>26.4</b><br>25.8             | <b>52.8</b><br>50.8                           | <b>24.5</b><br>22.3                                                     | <b>3.2</b><br>2.8   |

**Nota.**

Lain-lain merujuk kepada selain daripada penggunaan teknologi digital yang dinyatakan.

**Notes.**

Others refers to other than the stated use of digital technology.



**Jadual 7 : Pendapatan dan Perbelanjaan E-Dagang mengikut Sektor/ Subsektor, 2015, 2022 dan 2023**  
*Table 7 : Income and Expenditure of E-Commerce by Sector/ Sub-sector, 2015, 2022 and 2023*

| Sektor/ Subsektor<br>Sector/ Sub-sector                                        | Year<br>Year                | Pendapatan<br>Income<br><br>(RM juta)<br>(RM million) | Perbelanjaan<br>Expenditure<br><br>(RM juta)<br>(RM million) |
|--------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------|--------------------------------------------------------------|
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b><br>2022<br>2015 | <b>1,184,122</b><br>1,126,854<br>398,207              | <b>571,399</b><br>531,631<br>195,098                         |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b><br>2022<br>2015 | <b>1,077</b><br>995<br>185                            | <b>451</b><br>424<br>80                                      |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b><br>2022<br>2015 | <b>11,695</b><br>10,895<br>6,827                      | <b>4,245</b><br>3,730<br>2,204                               |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b><br>2022<br>2015 | <b>587,258</b><br>561,260<br>275,857                  | <b>371,800</b><br>347,617<br>160,584                         |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b><br>2022<br>2015 | <b>1,131</b><br>1,036<br>207                          | <b>765</b><br>706<br>424                                     |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b><br>2022<br>2015 | <b>582,961</b><br>552,668<br>115,131                  | <b>194,139</b><br>179,155<br>31,808                          |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b><br>2022<br>2015 | <b>13,544</b><br>13,376<br>2,303                      | <b>2,862</b><br>2,669<br>254                                 |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b><br>2022<br>2015 | <b>232,651</b><br>227,894<br>62,427                   | <b>83,242</b><br>80,313<br>18,195                            |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b><br>2022<br>2015 | <b>30,386</b><br>24,212<br>21,952                     | <b>15,831</b><br>14,038<br>6,889                             |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b><br>2022<br>2015 | <b>6,712</b><br>6,145<br>5,924                        | <b>4,100</b><br>3,884<br>3,546                               |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b><br>2022<br>2015 | <b>9,742</b><br>8,932<br>2,043                        | <b>2,230</b><br>2,112<br>604                                 |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b><br>2022<br>2015 | <b>99,559</b><br>92,373<br>8,575                      | <b>28,948</b><br>26,600<br>173                               |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b><br>2022<br>2015 | <b>182,116</b><br>171,939<br>9,268                    | <b>54,474</b><br>47,242<br>1,818                             |

**Jadual 7 : Pendapatan dan Perbelanjaan E-Dagang mengikut Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 7 : Income and Expenditure of E-Commerce by Sector/ Sub-sector, 2015, 2022, and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector       | Year<br>Year | Pendapatan<br>Income<br><br>(RM juta)<br>(RM million) | Perbelanjaan<br>Expenditure<br><br>(RM juta)<br>(RM million) |
|-----------------------------------------------|--------------|-------------------------------------------------------|--------------------------------------------------------------|
| <b>Hartanah</b>                               | <b>2023</b>  | <b>90</b>                                             | <b>45</b>                                                    |
| <i>Real Estate</i>                            | 2022         | 87                                                    | 42                                                           |
|                                               | 2015         | 9                                                     | 9                                                            |
| <b>Profesional, Saintifik dan Teknikal</b>    | <b>2023</b>  | <b>524</b>                                            | <b>81</b>                                                    |
| <i>Professional, Scientific and Technical</i> | 2022         | 496                                                   | 78                                                           |
|                                               | 2015         | 206                                                   | 33                                                           |
| <b>Pentadbiran dan Khidmat Sokongan</b>       | <b>2023</b>  | <b>2,983</b>                                          | <b>779</b>                                                   |
| <i>Administrative and Support Service</i>     | 2022         | 2,749                                                 | 743                                                          |
|                                               | 2015         | 1,611                                                 | 181                                                          |
| <b>Pendidikan</b>                             | <b>2023</b>  | <b>1,315</b>                                          | <b>365</b>                                                   |
| <i>Education</i>                              | 2022         | 1,283                                                 | 332                                                          |
|                                               | 2015         | 317                                                   | 61                                                           |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b> | <b>2023</b>  | <b>1,361</b>                                          | <b>748</b>                                                   |
| <i>Human Health and Social Work</i>           | 2022         | 1,275                                                 | 683                                                          |
|                                               | 2015         | 4                                                     | 17                                                           |
| <b>Kesenian, Hiburan dan Rekreasi</b>         | <b>2023</b>  | <b>1,901</b>                                          | <b>385</b>                                                   |
| <i>Arts, Entertainment and Recreation</i>     | 2022         | 1,834                                                 | 373                                                          |
|                                               | 2015         | 483                                                   | 25                                                           |
| <b>Perkhidmatan Lain</b>                      | <b>2023</b>  | <b>77</b>                                             | <b>50</b>                                                    |
| <i>Other Services</i>                         | 2022         | 75                                                    | 47                                                           |
|                                               | 2015         | 8                                                     | 3                                                            |



**Jadual 8 : Pendapatan E-Dagang mengikut Jenis Pasaran dan Sektor/ Subsektor, 2015, 2022 dan 2023**  
**Table 8 : Income of E-Commerce by Type of Market and Sector/ Sub-sector, 2015, 2022 and 2023**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                        | Year<br>Year | Jumlah<br>Total<br><br>(RM Juta)<br>(RM Million) | Tempatan<br>Domestic<br><br>(RM Juta)<br>(RM Million) | Antarabangsa<br>International<br><br>(RM Juta)<br>(RM Million) |
|--------------------------------------------------------------------------------|--------------|--------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------|
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>  | <b>1,184,122</b>                                 | <b>1,052,993</b>                                      | <b>131,129</b>                                                 |
|                                                                                | 2022         | 1,126,854                                        | 1,003,480                                             | 123,374                                                        |
|                                                                                | 2015         | 398,207                                          | 356,887                                               | 41,320                                                         |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>  | <b>1,077</b>                                     | <b>888</b>                                            | <b>189</b>                                                     |
|                                                                                | 2022         | 995                                              | 819                                                   | 176                                                            |
|                                                                                | 2015         | 185                                              | 129                                                   | 56                                                             |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>  | <b>11,695</b>                                    | <b>9,576</b>                                          | <b>2,119</b>                                                   |
|                                                                                | 2022         | 10,895                                           | 8,917                                                 | 1,977                                                          |
|                                                                                | 2015         | 6,827                                            | 4,922                                                 | 1,906                                                          |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>  | <b>587,258</b>                                   | <b>543,322</b>                                        | <b>43,935</b>                                                  |
|                                                                                | 2022         | 561,260                                          | 520,611                                               | 40,649                                                         |
|                                                                                | 2015         | 275,857                                          | 255,691                                               | 20,166                                                         |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>  | <b>1,131</b>                                     | <b>1,130</b>                                          | <b>1</b>                                                       |
|                                                                                | 2022         | 1,036                                            | 1,034                                                 | 1                                                              |
|                                                                                | 2015         | 207                                              | 207                                                   | 0                                                              |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>  | <b>582,961</b>                                   | <b>498,077</b>                                        | <b>84,885</b>                                                  |
|                                                                                | 2022         | 552,668                                          | 472,099                                               | 80,570                                                         |
|                                                                                | 2015         | 115,130                                          | 95,938                                                | 19,192                                                         |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>  | <b>13,544</b>                                    | <b>13,444</b>                                         | <b>100</b>                                                     |
|                                                                                | 2022         | 13,376                                           | 13,286                                                | 90                                                             |
|                                                                                | 2015         | 2,303                                            | 2,303                                                 | -                                                              |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>  | <b>232,651</b>                                   | <b>192,597</b>                                        | <b>40,054</b>                                                  |
|                                                                                | 2022         | 227,894                                          | 188,731                                               | 39,162                                                         |
|                                                                                | 2015         | 62,427                                           | 54,719                                                | 7,708                                                          |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>  | <b>30,386</b>                                    | <b>22,586</b>                                         | <b>7,800</b>                                                   |
|                                                                                | 2022         | 24,212                                           | 16,723                                                | 7,489                                                          |
|                                                                                | 2015         | 21,952                                           | 13,103                                                | 8,849                                                          |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>  | <b>6,712</b>                                     | <b>6,000</b>                                          | <b>712</b>                                                     |
|                                                                                | 2022         | 6,145                                            | 5,555                                                 | 590                                                            |
|                                                                                | 2015         | 5,924                                            | 3,812                                                 | 2,112                                                          |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>  | <b>9,742</b>                                     | <b>9,716</b>                                          | <b>26</b>                                                      |
|                                                                                | 2022         | 8,932                                            | 8,912                                                 | 20                                                             |
|                                                                                | 2015         | 2,043                                            | 2,032                                                 | 11                                                             |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>  | <b>9,742</b>                                     | <b>9,716</b>                                          | <b>26</b>                                                      |
|                                                                                | 2022         | 92,373                                           | 92,335                                                | 38                                                             |
|                                                                                | 2015         | 8,575                                            | 8,517                                                 | 58                                                             |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>  | <b>182,116</b>                                   | <b>146,171</b>                                        | <b>35,945</b>                                                  |
|                                                                                | 2022         | 171,939                                          | 138,935                                               | 33,003                                                         |
|                                                                                | 2015         | 9,268                                            | 8,967                                                 | 301                                                            |

**Jadual 8 : Pendapatan E-Dagang mengikut Jenis Pasaran dan Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 8 : Income of E-Commerce by Type of Market and Sector/ Sub-sector, 2015, 2022 and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Year<br>Year | Jumlah<br>Total<br><br>(RM Juta)<br>(RM Million) | Tempatan<br>Domestic<br><br>(RM Juta)<br>(RM Million) | Antarabangsa<br>International<br><br>(RM Juta)<br>(RM Million) |
|---------------------------------------------------------------------------------------------|--------------|--------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------|
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>  | <b>90</b>                                        | <b>84</b>                                             | <b>6</b>                                                       |
|                                                                                             | 2022         | 87                                               | 81                                                    | 6                                                              |
|                                                                                             | 2015         | 9                                                | 9                                                     | -                                                              |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>  | <b>524</b>                                       | <b>519</b>                                            | <b>5</b>                                                       |
|                                                                                             | 2022         | 496                                              | 491                                                   | 5                                                              |
|                                                                                             | 2015         | 206                                              | 196                                                   | 9                                                              |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>  | <b>2,983</b>                                     | <b>2,919</b>                                          | <b>64</b>                                                      |
|                                                                                             | 2022         | 2,749                                            | 2,708                                                 | 41                                                             |
|                                                                                             | 2015         | 1,611                                            | 1,564                                                 | 46                                                             |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>  | <b>1,315</b>                                     | <b>1,275</b>                                          | <b>40</b>                                                      |
|                                                                                             | 2022         | 1,283                                            | 1,247                                                 | 36                                                             |
|                                                                                             | 2015         | 317                                              | 292                                                   | 25                                                             |
| <b>Kesihatan Kemanusiaan<br/>dan Kerja Sosial</b><br><i>Human Health and Social Work</i>    | <b>2023</b>  | <b>1,361</b>                                     | <b>1,346</b>                                          | <b>15</b>                                                      |
|                                                                                             | 2022         | 1,275                                            | 1,260                                                 | 16                                                             |
|                                                                                             | 2015         | 4                                                | 3                                                     | 0                                                              |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>  | <b>1,901</b>                                     | <b>1,828</b>                                          | <b>73</b>                                                      |
|                                                                                             | 2022         | 1,834                                            | 1,761                                                 | 73                                                             |
|                                                                                             | 2015         | 483                                              | 412                                                   | 71                                                             |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>  | <b>77</b>                                        | <b>76</b>                                             | <b>1</b>                                                       |
|                                                                                             | 2022         | 75                                               | 74                                                    | 1                                                              |
|                                                                                             | 2015         | 8                                                | 6                                                     | 1                                                              |

**Nota.**

'0' merujuk kepada nilai kurang daripada RM500,000

'-' merujuk kepada data tidak tersedia

**Notes.**

'0' refers to value less than RM500,000

'-' refers to data not available



**Jadual 9 : Pendapatan E-Dagang mengikut Jenis Pelanggan dan Sektor/ Subsektor, 2015, 2022 dan 2023**  
**Table 9 : Income of E-Commerce by Type of Customer and Sector/ Sub-sector, 2015, 2022 and 2023**

| Sektor/ Subsektor<br>Sector/ Sub-sector | Year<br>Year | Jumlah<br>Total           | Perniagaan<br>Kepada Perniagaan<br>Business<br>to Business | Perniagaan<br>Kepada Pengguna<br>Business<br>to Consumer | Perniagaan<br>Kepada Kerajaan<br>Business<br>to Government |
|-----------------------------------------|--------------|---------------------------|------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
|                                         |              | (RM Juta)<br>(RM Million) | (RM Juta)<br>(RM Million)                                  | (RM Juta)<br>(RM Million)                                | (RM Juta)<br>(RM Million)                                  |
| <b>Jumlah</b>                           | <b>2023</b>  | <b>1,184,122</b>          | <b>817,138</b>                                             | <b>336,622</b>                                           | <b>30,361</b>                                              |
| <i>Total</i>                            | 2022         | 1,126,854                 | 786,501                                                    | 312,583                                                  | 27,769                                                     |
|                                         | 2015         | 398,207                   | 320,113                                                    | 68,847                                                   | 9,247                                                      |
| <b>Pertanian</b>                        | <b>2023</b>  | <b>1,077</b>              | <b>686</b>                                                 | <b>384</b>                                               | <b>7</b>                                                   |
| <i>Agriculture</i>                      | 2022         | 995                       | 628                                                        | 360                                                      | 7                                                          |
|                                         | 2015         | 185                       | 103                                                        | 82                                                       | -                                                          |
| <b>Perlombongan dan Pengkuarian</b>     | <b>2023</b>  | <b>11,695</b>             | <b>11,669</b>                                              | <b>0</b>                                                 | <b>26</b>                                                  |
| <i>Mining and Quarrying</i>             | 2022         | 10,895                    | 10,872                                                     | -                                                        | 23                                                         |
|                                         | 2015         | 6,827                     | 6,813                                                      | -                                                        | 14                                                         |
| <b>Pembuatan</b>                        | <b>2023</b>  | <b>587,258</b>            | <b>540,749</b>                                             | <b>39,126</b>                                            | <b>7,382</b>                                               |
| <i>Manufacturing</i>                    | 2022         | 561,260                   | 526,748                                                    | 28,358                                                   | 6,154                                                      |
|                                         | 2015         | 275,857                   | 257,011                                                    | 18,108                                                   | 738                                                        |
| <b>Pembinaan</b>                        | <b>2023</b>  | <b>1,131</b>              | <b>742</b>                                                 | <b>86</b>                                                | <b>303</b>                                                 |
| <i>Construction</i>                     | 2022         | 1,036                     | 681                                                        | 72                                                       | 283                                                        |
|                                         | 2015         | 207                       | 206                                                        | 0                                                        | 0                                                          |
| <b>Perkhidmatan</b>                     | <b>2023</b>  | <b>582,961</b>            | <b>263,291</b>                                             | <b>297,026</b>                                           | <b>22,643</b>                                              |
| <i>Services</i>                         | 2022         | 552,668                   | 247,573                                                    | 283,793                                                  | 21,303                                                     |
|                                         | 2015         | 115,131                   | 55,979                                                     | 50,657                                                   | 8,495                                                      |
| <b>Utiliti</b>                          | <b>2023</b>  | <b>13,544</b>             | <b>13,321</b>                                              | <b>178</b>                                               | <b>45</b>                                                  |
| <i>Utility</i>                          | 2022         | 13,376                    | 13,190                                                     | 147                                                      | 39                                                         |
|                                         | 2015         | 2,303                     | 2,302                                                      | 1                                                        | -                                                          |
| <b>Perdagangan Borong dan Runcit</b>    | <b>2023</b>  | <b>232,651</b>            | <b>103,459</b>                                             | <b>122,761</b>                                           | <b>6,431</b>                                               |
| <i>Wholesale and Retail Trade</i>       | 2022         | 227,894                   | 101,838                                                    | 120,132                                                  | 5,923                                                      |
|                                         | 2015         | 62,427                    | 43,917                                                     | 12,684                                                   | 5,826                                                      |
| <b>Pengangkutan dan Penyimpanan</b>     | <b>2023</b>  | <b>30,386</b>             | <b>10,883</b>                                              | <b>18,451</b>                                            | <b>1,052</b>                                               |
| <i>Transportation and Storage</i>       | 2022         | 24,212                    | 8,120                                                      | 15,250                                                   | 842                                                        |
|                                         | 2015         | 21,952                    | 3,512                                                      | 17,627                                                   | 812                                                        |
| <b>Penginapan</b>                       | <b>2023</b>  | <b>6,712</b>              | <b>1,376</b>                                               | <b>4,872</b>                                             | <b>464</b>                                                 |
| <i>Accommodation</i>                    | 2022         | 6,145                     | 1,210                                                      | 4,618                                                    | 317                                                        |
|                                         | 2015         | 5,924                     | 1,603                                                      | 3,241                                                    | 1,080                                                      |
| <b>Makanan dan Minuman</b>              | <b>2023</b>  | <b>9,742</b>              | <b>916</b>                                                 | <b>8,668</b>                                             | <b>158</b>                                                 |
| <i>Food and Beverages</i>               | 2022         | 8,932                     | 767                                                        | 8,025                                                    | 139                                                        |
|                                         | 2015         | 2,043                     | 406                                                        | 1,588                                                    | 49                                                         |
| <b>Maklumat dan Komunikasi</b>          | <b>2023</b>  | <b>99,559</b>             | <b>50,367</b>                                              | <b>47,656</b>                                            | <b>1,536</b>                                               |
| <i>Information and Communication</i>    | 2022         | 92,373                    | 44,651                                                     | 46,267                                                   | 1,454                                                      |
|                                         | 2015         | 8,575                     | 1,473                                                      | 6,931                                                    | 171                                                        |
| <b>Kewangan dan Insurans/Takaful</b>    | <b>2023</b>  | <b>182,116</b>            | <b>79,907</b>                                              | <b>89,629</b>                                            | <b>12,579</b>                                              |
| <i>Financial and Insurance/Takaful</i>  | 2022         | 171,939                   | 74,997                                                     | 84,629                                                   | 12,312                                                     |
|                                         | 2015         | 9,268                     | 2,152                                                      | 6,706                                                    | 410                                                        |

**Jadual 9 : Pendapatan E-Dagang mengikut Jenis Pelanggan dan Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 9 : Income of E-Commerce by Type of Customer and Sector/ Sub-sector, 2015, 2022 and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Year<br>Year | Jumlah<br>Total           | Perniagaan<br>Kepada Perniagaan<br>Business<br>to Business | Perniagaan<br>Kepada Pengguna<br>Business<br>to Consumer | Perniagaan<br>Kepada Kerajaan<br>Business<br>to Government |
|---------------------------------------------------------------------------------------------|--------------|---------------------------|------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
|                                                                                             |              | (RM Juta)<br>(RM Million) | (RM Juta)<br>(RM Million)                                  | (RM Juta)<br>(RM Million)                                | (RM Juta)<br>(RM Million)                                  |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>  | <b>90</b>                 | <b>35</b>                                                  | <b>54</b>                                                | <b>1</b>                                                   |
|                                                                                             | 2022         | 87                        | 35                                                         | 52                                                       | 1                                                          |
|                                                                                             | 2015         | 9                         | 4                                                          | 5                                                        | 0                                                          |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>  | <b>524</b>                | <b>306</b>                                                 | <b>212</b>                                               | <b>5</b>                                                   |
|                                                                                             | 2022         | 496                       | 300                                                        | 191                                                      | 4                                                          |
|                                                                                             | 2015         | 206                       | 113                                                        | 79                                                       | 14                                                         |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>  | <b>2,983</b>              | <b>1,302</b>                                               | <b>1,407</b>                                             | <b>274</b>                                                 |
|                                                                                             | 2022         | 2,749                     | 1,195                                                      | 1,379                                                    | 174                                                        |
|                                                                                             | 2015         | 1,611                     | 462                                                        | 1,021                                                    | 128                                                        |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>  | <b>1,315</b>              | <b>528</b>                                                 | <b>754</b>                                               | <b>33</b>                                                  |
|                                                                                             | 2022         | 1,283                     | 516                                                        | 736                                                      | 31                                                         |
|                                                                                             | 2015         | 317                       | 18                                                         | 297                                                      | 3                                                          |
| <b>Kesihatan Kemanusiaan<br/>dan Kerja Sosial</b><br><i>Human Health and Social Work</i>    | <b>2023</b>  | <b>1,361</b>              | <b>550</b>                                                 | <b>805</b>                                               | <b>6</b>                                                   |
|                                                                                             | 2022         | 1,275                     | 426                                                        | 842                                                      | 7                                                          |
|                                                                                             | 2015         | 4                         | 0                                                          | 3                                                        | 0                                                          |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>  | <b>1,901</b>              | <b>315</b>                                                 | <b>1,530</b>                                             | <b>57</b>                                                  |
|                                                                                             | 2022         | 1,834                     | 300                                                        | 1,477                                                    | 56                                                         |
|                                                                                             | 2015         | 483                       | 15                                                         | 468                                                      | 0                                                          |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>  | <b>77</b>                 | <b>26</b>                                                  | <b>48</b>                                                | <b>2</b>                                                   |
|                                                                                             | 2022         | 75                        | 25                                                         | 47                                                       | 2                                                          |
|                                                                                             | 2015         | 8                         | 2                                                          | 4                                                        | 1                                                          |

**Nota.**

'0' merujuk kepada nilai kurang daripada RM500,000

Note.

'0' refers to value less than RM500,000



**Jadual 10 : Perbelanjaan E-Dagang mengikut Jenis Pasaran dan Sektor/ Subsektor, 2015, 2022 dan 2023**  
*Table 10 : Expenditure of E-Commerce by Type of Market and Sector/ Sub-sector, 2015, 2022 and 2023*

| Sektor/ Subsektor<br>Sector/ Sub-sector                                        | Year<br>Year | Jumlah<br>Total<br><br>(RM Juta)<br>(RM Million) | Tempatan<br>Domestic<br><br>(RM Juta)<br>(RM Million) | Antarabangsa<br>International<br><br>(RM Juta)<br>(RM Million) |
|--------------------------------------------------------------------------------|--------------|--------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------|
| <b>Jumlah</b><br><i>Total</i>                                                  | <b>2023</b>  | <b>571,399</b>                                   | <b>530,609</b>                                        | <b>40,790</b>                                                  |
|                                                                                | 2022         | 531,631                                          | 494,160                                               | 37,471                                                         |
|                                                                                | 2015         | 195,098                                          | 173,963                                               | 21,135                                                         |
| <b>Pertanian</b><br><i>Agriculture</i>                                         | <b>2023</b>  | <b>451</b>                                       | <b>408</b>                                            | <b>44</b>                                                      |
|                                                                                | 2022         | 424                                              | 381                                                   | 43                                                             |
|                                                                                | 2015         | 80                                               | 80                                                    | 0                                                              |
| <b>Perlombongan dan Pengkuarian</b><br><i>Mining and Quarrying</i>             | <b>2023</b>  | <b>4,245</b>                                     | <b>4,244</b>                                          | <b>1</b>                                                       |
|                                                                                | 2022         | 3,730                                            | 3,729                                                 | 1                                                              |
|                                                                                | 2015         | 2,204                                            | 2,204                                                 | -                                                              |
| <b>Pembuatan</b><br><i>Manufacturing</i>                                       | <b>2023</b>  | <b>371,800</b>                                   | <b>347,931</b>                                        | <b>23,869</b>                                                  |
|                                                                                | 2022         | 347,617                                          | 326,505                                               | 21,112                                                         |
|                                                                                | 2015         | 160,584                                          | 149,387                                               | 11,197                                                         |
| <b>Pembinaan</b><br><i>Construction</i>                                        | <b>2023</b>  | <b>765</b>                                       | <b>749</b>                                            | <b>15</b>                                                      |
|                                                                                | 2022         | 706                                              | 691                                                   | 15                                                             |
|                                                                                | 2015         | 424                                              | 422                                                   | 2                                                              |
| <b>Perkhidmatan</b><br><i>Services</i>                                         | <b>2023</b>  | <b>194,139</b>                                   | <b>177,278</b>                                        | <b>16,861</b>                                                  |
|                                                                                | 2022         | 179,155                                          | 162,854                                               | 16,301                                                         |
|                                                                                | 2015         | 31,808                                           | 21,871                                                | 9,937                                                          |
| <b>Utiliti</b><br><i>Utility</i>                                               | <b>2023</b>  | <b>2,862</b>                                     | <b>2,841</b>                                          | <b>21</b>                                                      |
|                                                                                | 2022         | 2,669                                            | 2,649                                                 | 20                                                             |
|                                                                                | 2015         | 254                                              | 254                                                   | -                                                              |
| <b>Perdagangan Borong dan Runcit</b><br><i>Wholesale and Retail Trade</i>      | <b>2023</b>  | <b>83,242</b>                                    | <b>74,191</b>                                         | <b>9,051</b>                                                   |
|                                                                                | 2022         | 80,313                                           | 71,368                                                | 8,944                                                          |
|                                                                                | 2015         | 18,195                                           | 14,920                                                | 3,275                                                          |
| <b>Pengangkutan dan Penyimpanan</b><br><i>Transportation and Storage</i>       | <b>2023</b>  | <b>15,831</b>                                    | <b>10,065</b>                                         | <b>5,766</b>                                                   |
|                                                                                | 2022         | 14,038                                           | 8,540                                                 | 5,498                                                          |
|                                                                                | 2015         | 6,889                                            | 1,858                                                 | 5,031                                                          |
| <b>Penginapan</b><br><i>Accommodation</i>                                      | <b>2023</b>  | <b>4,100</b>                                     | <b>2,902</b>                                          | <b>1,198</b>                                                   |
|                                                                                | 2022         | 3,884                                            | 2,698                                                 | 1,186                                                          |
|                                                                                | 2015         | 3,546                                            | 2,235                                                 | 1,311                                                          |
| <b>Makanan dan Minuman</b><br><i>Food and Beverages</i>                        | <b>2023</b>  | <b>2,230</b>                                     | <b>1,801</b>                                          | <b>429</b>                                                     |
|                                                                                | 2022         | 2,112                                            | 1,763                                                 | 350                                                            |
|                                                                                | 2015         | 604                                              | 488                                                   | 116                                                            |
| <b>Maklumat dan Komunikasi</b><br><i>Information and Communication</i>         | <b>2023</b>  | <b>28,948</b>                                    | <b>28,931</b>                                         | <b>17</b>                                                      |
|                                                                                | 2022         | 26,600                                           | 26,585                                                | 15                                                             |
|                                                                                | 2015         | 173                                              | 90                                                    | 83                                                             |
| <b>Kewangan dan Insurans/Takaful</b><br><i>Financial and Insurance/Takaful</i> | <b>2023</b>  | <b>54,474</b>                                    | <b>54,287</b>                                         | <b>187</b>                                                     |
|                                                                                | 2022         | 47,242                                           | 47,142                                                | 100                                                            |
|                                                                                | 2015         | 1,818                                            | 1,728                                                 | 91                                                             |

**Jadual 10 : Perbelanjaan E-Dagang mengikut Jenis Pasaran dan Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 10 : Expenditure of E-Commerce by Type of Market and Sector/ Sub-sector, 2015, 2022 and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-sector                                                     | Year<br>Year                | Jumlah<br>Total<br><br>(RM Juta)<br>(RM Million) | Tempatan<br>Domestic<br><br>(RM Juta)<br>(RM Million) | Antarabangsa<br>International<br><br>(RM Juta)<br>(RM Million) |
|---------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------|
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b><br>2022<br>2015 | <b>45</b><br>42<br>9                             | <b>41</b><br>39<br>9                                  | <b>4</b><br>3<br>0                                             |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b><br>2022<br>2015 | <b>81</b><br>78<br>33                            | <b>78</b><br>75<br>31                                 | <b>3</b><br>3<br>2                                             |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b><br>2022<br>2015 | <b>779</b><br>743<br>181                         | <b>693</b><br>659<br>165                              | <b>85</b><br>84<br>16                                          |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b><br>2022<br>2015 | <b>365</b><br>332<br>61                          | <b>352</b><br>320<br>57                               | <b>13</b><br>12<br>4                                           |
| <b>Kesihatan Kemanusiaan dan Kerja Sosial</b><br><i>Human Health and Social Work</i>        | <b>2023</b><br>2022<br>2015 | <b>748</b><br>683<br>17                          | <b>720</b><br>653<br>14                               | <b>28</b><br>30<br>3                                           |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b><br>2022<br>2015 | <b>385</b><br>373<br>25                          | <b>325</b><br>316<br>20                               | <b>59</b><br>57<br>5                                           |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b><br>2022<br>2015 | <b>50</b><br>47<br>3                             | <b>49</b><br>47<br>2                                  | <b>0</b><br>0<br>0                                             |

**Nota.**

'0' merujuk kepada nilai kurang daripada RM500,000

'-' merujuk kepada data tidak tersedia

**Note.**

'0' refers to value less than RM500,000

'-' refers to data not available



**Jadual 11 : Perbelanjaan E-Dagang mengikut Jenis Pelanggan dan Sektor/ Subsektor, 2015, 2022 dan 2023**  
**Table 11 : Expenditure of E-Commerce by Type of Customer and Sector/ Sub-sector, 2015, 2022 and 2023**

| Sektor/ Subsektor<br>Sector/ Sub-Sector | Year<br>Year | Jumlah<br>Total           | Perniagaan<br>Kepada Perniagaan<br>Business<br>to Business | Perniagaan<br>Kepada Pengguna<br>Business<br>to Consumer | Perniagaan<br>Kepada Kerajaan<br>Business<br>to Government |
|-----------------------------------------|--------------|---------------------------|------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
|                                         |              | (RM Juta)<br>(RM Million) | (RM Juta)<br>(RM Million)                                  | (RM Juta)<br>(RM Million)                                | (RM Juta)<br>(RM Million)                                  |
| <b>Jumlah</b>                           | <b>2023</b>  | <b>571,399</b>            | <b>443,363</b>                                             | <b>112,626</b>                                           | <b>15,410</b>                                              |
| <i>Total</i>                            | 2022         | 531,631                   | 432,160                                                    | 87,937                                                   | 11,535                                                     |
|                                         | 2015         | 195,098                   | 183,002                                                    | 8,656                                                    | 3,440                                                      |
| <b>Pertanian</b>                        | <b>2023</b>  | <b>451</b>                | <b>354</b>                                                 | <b>95</b>                                                | <b>2</b>                                                   |
| <i>Agriculture</i>                      | 2022         | 424                       | 328                                                        | 94                                                       | 2                                                          |
|                                         | 2015         | 80                        | 71                                                         | 8                                                        | 1                                                          |
| <b>Perlombongan dan Pengkuarian</b>     | <b>2023</b>  | <b>4,245</b>              | <b>4,085</b>                                               | <b>5</b>                                                 | <b>155</b>                                                 |
| <i>Mining and Quarrying</i>             | 2022         | 3,730                     | 3,587                                                      | 5                                                        | 138                                                        |
|                                         | 2015         | 2,204                     | 2,204                                                      | -                                                        | -                                                          |
| <b>Pembuatan</b>                        | <b>2023</b>  | <b>371,800</b>            | <b>303,906</b>                                             | <b>60,451</b>                                            | <b>7,443</b>                                               |
| <i>Manufacturing</i>                    | 2022         | 347,617                   | 297,157                                                    | 45,223                                                   | 5,238                                                      |
|                                         | 2015         | 160,584                   | 151,914                                                    | 6,517                                                    | 2,153                                                      |
| <b>Pembinaan</b>                        | <b>2023</b>  | <b>765</b>                | <b>644</b>                                                 | <b>34</b>                                                | <b>86</b>                                                  |
| <i>Construction</i>                     | 2022         | 706                       | 603                                                        | 27                                                       | 75                                                         |
|                                         | 2015         | 424                       | 422                                                        | 1                                                        | 0                                                          |
| <b>Perkhidmatan</b>                     | <b>2023</b>  | <b>194,139</b>            | <b>134,373</b>                                             | <b>52,041</b>                                            | <b>7,725</b>                                               |
| <i>Services</i>                         | 2022         | 179,155                   | 130,484                                                    | 42,588                                                   | 6,082                                                      |
|                                         | 2015         | 31,808                    | 28,391                                                     | 2,130                                                    | 1,286                                                      |
| <b>Utiliti</b>                          | <b>2023</b>  | <b>2,862</b>              | <b>2,783</b>                                               | <b>73</b>                                                | <b>6</b>                                                   |
| <i>Utility</i>                          | 2022         | 2,669                     | 2,599                                                      | 64                                                       | 6                                                          |
|                                         | 2015         | 254                       | 254                                                        | -                                                        | -                                                          |
| <b>Perdagangan Borong dan Runcit</b>    | <b>2023</b>  | <b>83,242</b>             | <b>62,392</b>                                              | <b>18,898</b>                                            | <b>1,952</b>                                               |
| <i>Wholesale and Retail Trade</i>       | 2022         | 80,313                    | 60,690                                                     | 17,711                                                   | 1,912                                                      |
|                                         | 2015         | 18,195                    | 16,467                                                     | 728                                                      | 1,001                                                      |
| <b>Pengangkutan dan Penyimpanan</b>     | <b>2023</b>  | <b>15,831</b>             | <b>11,540</b>                                              | <b>3,960</b>                                             | <b>331</b>                                                 |
| <i>Transportation and Storage</i>       | 2022         | 14,038                    | 11,300                                                     | 2,437                                                    | 301                                                        |
|                                         | 2015         | 6,889                     | 6,696                                                      | -                                                        | 194                                                        |
| <b>Penginapan</b>                       | <b>2023</b>  | <b>4,100</b>              | <b>2,538</b>                                               | <b>1,180</b>                                             | <b>383</b>                                                 |
| <i>Accommodation</i>                    | 2022         | 3,884                     | 2,523                                                      | 1,041                                                    | 320                                                        |
|                                         | 2015         | 3,546                     | 2,260                                                      | 1,246                                                    | 40                                                         |
| <b>Makanan dan Minuman</b>              | <b>2023</b>  | <b>2,230</b>              | <b>2,055</b>                                               | <b>165</b>                                               | <b>10</b>                                                  |
| <i>Food and Beverages</i>               | 2022         | 2,112                     | 1,955                                                      | 148                                                      | 9                                                          |
|                                         | 2015         | 604                       | 576                                                        | 28                                                       | 0                                                          |
| <b>Maklumat dan Komunikasi</b>          | <b>2023</b>  | <b>28,948</b>             | <b>22,053</b>                                              | <b>6,381</b>                                             | <b>514</b>                                                 |
| <i>Information and Communication</i>    | 2022         | 26,600                    | 21,474                                                     | 4,660                                                    | 466                                                        |
|                                         | 2015         | 173                       | 166                                                        | 6                                                        | 1                                                          |
| <b>Kewangan dan Insurans/Takaful</b>    | <b>2023</b>  | <b>54,474</b>             | <b>29,418</b>                                              | <b>20,592</b>                                            | <b>4,463</b>                                               |
| <i>Financial and Insurance/Takaful</i>  | 2022         | 47,242                    | 28,455                                                     | 15,781                                                   | 3,006                                                      |
|                                         | 2015         | 1,818                     | 1,687                                                      | 87                                                       | 45                                                         |

**Jadual 11 : Perbelanjaan E-Dagang mengikut Jenis Pelanggan dan Sektor/ Subsektor, 2015, 2022 dan 2023 (samb)**  
**Table 11 : Expenditure of E-Commerce by Type of Customer and Sector/ Sub-sector, 2015, 2022 and 2023 (cont'd)**

| Sektor/ Subsektor<br>Sector/ Sub-Sector                                                     | Year<br>Year | Jumlah<br>Total           | Perniagaan<br>Kepada Perniagaan<br>Business<br>to Business | Perniagaan<br>Kepada Pengguna<br>Business<br>to Consumer | Perniagaan<br>Kepada Kerajaan<br>Business<br>to Government |
|---------------------------------------------------------------------------------------------|--------------|---------------------------|------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
|                                                                                             |              | (RM Juta)<br>(RM Million) | (RM Juta)<br>(RM Million)                                  | (RM Juta)<br>(RM Million)                                | (RM Juta)<br>(RM Million)                                  |
| <b>Hartanah</b><br><i>Real Estate</i>                                                       | <b>2023</b>  | <b>45</b>                 | <b>33</b>                                                  | <b>11</b>                                                | <b>1</b>                                                   |
|                                                                                             | 2022         | 42                        | 31                                                         | 10                                                       | 1                                                          |
|                                                                                             | 2015         | 9                         | 9                                                          | 0                                                        | -                                                          |
| <b>Profesional, Saintifik dan Teknikal</b><br><i>Professional, Scientific and Technical</i> | <b>2023</b>  | <b>81</b>                 | <b>50</b>                                                  | <b>31</b>                                                | <b>1</b>                                                   |
|                                                                                             | 2022         | 78                        | 47                                                         | 30                                                       | 1                                                          |
|                                                                                             | 2015         | 33                        | 30                                                         | 3                                                        | 0                                                          |
| <b>Pentadbiran dan Khidmat Sokongan</b><br><i>Administrative and Support Service</i>        | <b>2023</b>  | <b>779</b>                | <b>417</b>                                                 | <b>312</b>                                               | <b>50</b>                                                  |
|                                                                                             | 2022         | 743                       | 399                                                        | 295                                                      | 49                                                         |
|                                                                                             | 2015         | 181                       | 148                                                        | 27                                                       | 5                                                          |
| <b>Pendidikan</b><br><i>Education</i>                                                       | <b>2023</b>  | <b>365</b>                | <b>206</b>                                                 | <b>147</b>                                               | <b>11</b>                                                  |
|                                                                                             | 2022         | 332                       | 190                                                        | 132                                                      | 11                                                         |
|                                                                                             | 2015         | 61                        | 55                                                         | 5                                                        | 0                                                          |
| <b>Kesihatan Kemanusiaan<br/>dan Kerja Sosial</b><br><i>Human Health and Social Work</i>    | <b>2023</b>  | <b>748</b>                | <b>616</b>                                                 | <b>132</b>                                               | <b>0</b>                                                   |
|                                                                                             | 2022         | 683                       | 553                                                        | 130                                                      | 0                                                          |
|                                                                                             | 2015         | 17                        | 17                                                         | 0                                                        | 0                                                          |
| <b>Kesenian, Hiburan dan Rekreasi</b><br><i>Arts, Entertainment and Recreation</i>          | <b>2023</b>  | <b>385</b>                | <b>258</b>                                                 | <b>125</b>                                               | <b>2</b>                                                   |
|                                                                                             | 2022         | 373                       | 255                                                        | 116                                                      | 2                                                          |
|                                                                                             | 2015         | 25                        | 24                                                         | 1                                                        | 0                                                          |
| <b>Perkhidmatan Lain</b><br><i>Other Services</i>                                           | <b>2023</b>  | <b>50</b>                 | <b>15</b>                                                  | <b>34</b>                                                | <b>1</b>                                                   |
|                                                                                             | 2022         | 47                        | 13                                                         | 33                                                       | 1                                                          |
|                                                                                             | 2015         | 3                         | 3                                                          | 0                                                        | -                                                          |

**Nota.**

'0' merujuk kepada nilai kurang daripada RM500,000

'-' merujuk kepada data tidak tersedia

**Note.**

'0' refers to value less than RM500,000

'-' refers to data not available



**Jadual 12 : Pendapatan E-Dagang Suku Tahunan**  
*Table 12 : Quarterly Income of E-Commerce*

| Tahun<br>Year           | Suku Tahun<br>Quarter | Pendapatan<br>Income<br>(RM juta)<br>(RM million) | YoY<br>%    | QoQ<br>% |
|-------------------------|-----------------------|---------------------------------------------------|-------------|----------|
| <b>2020</b>             |                       | <b>920,158</b>                                    |             |          |
|                         | 1                     | 201,070                                           | -           | -        |
|                         | 2                     | 222,662                                           | -           | 10.7     |
|                         | 3                     | 244,498                                           | -           | 9.8      |
|                         | 4                     | 251,929                                           | -           | 3.0      |
| <b>2021<sup>r</sup></b> |                       | <b>1,064,722</b>                                  | <b>15.7</b> |          |
|                         | 1                     | 248,395                                           | 23.5        | -1.4     |
|                         | 2                     | 261,002                                           | 17.2        | 5.1      |
|                         | 3                     | 272,156                                           | 11.3        | 4.3      |
|                         | 4                     | 283,168                                           | 12.4        | 4.0      |
| <b>2022<sup>r</sup></b> |                       | <b>1,128,876</b>                                  | <b>6.0</b>  |          |
|                         | 1                     | 271,275                                           | 9.2         | -4.2     |
|                         | 2                     | 281,041                                           | 7.7         | 3.6      |
|                         | 3                     | 281,884                                           | 3.6         | 0.3      |
|                         | 4                     | 294,675                                           | 4.1         | 4.5      |
| <b>2023<sup>r</sup></b> |                       | <b>1,184,122</b>                                  | <b>4.9</b>  |          |
|                         | 1                     | 299,417                                           | 10.4        | 1.6      |
|                         | 2                     | 287,944                                           | 2.5         | -3.8     |
|                         | 3                     | 297,132                                           | 5.4         | 3.2      |
|                         | 4                     | 299,629                                           | 1.7         | 0.8      |
| <b>2024<sup>r</sup></b> |                       | <b>1,230,643</b>                                  | <b>3.9</b>  |          |
|                         | 1                     | 301,023                                           | 0.5         | 0.5      |
|                         | 2                     | 310,390                                           | 7.8         | 3.1      |
|                         | 3                     | 308,456                                           | 3.8         | -0.6     |
|                         | 4                     | 310,774                                           | 3.7         | 0.8      |
| <b>2025<sup>r</sup></b> | 1                     | 311,148                                           | 3.4         | 0.1      |

**Nota.**

**'r'** merujuk kepada pindaan

**Note.**

*r* refers to revision

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# 4

## NOTA TEKNIKAL

*Technical Notes*

PENGUNAAN ICT  
DAN E-DAGANG  
PERTUBUHAN 2024



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# NOTA TEKNIKAL

## 1. PENDAHULUAN

Penerbitan ini membekalkan maklumat petunjuk ICT bagi Penggunaan ICT dan E-Dagang oleh Pertubuhan bagi tahun rujukan 2023. Data tersebut dikumpul dan disusun daripada Survei E-Dagang Tahunan 2024.

Petunjuk ICT telah dibangunkan oleh *World Summit on the Information Society (WSIS)* dan telah dilancarkan pada Jun 2004. Tujuan senarai petunjuk ini adalah sebagai panduan/ input kepada negara-negara yang menjalankan survei data ICT. Senarai petunjuk ini juga boleh membantu dalam mengeluarkan data ICT yang berkualiti dan perbandingan di peringkat antarabangsa.

Terdapat 48 petunjuk ICT di dalam 6 kumpulan seperti berikut:

- |                                                        |               |
|--------------------------------------------------------|---------------|
| • Infrastruktur dan akses ICT                          | - 10 petunjuk |
| • Penggunaan dan akses ICT oleh isi rumah dan individu | - 13 petunjuk |
| • Penggunaan ICT oleh perniagaan                       | - 12 petunjuk |
| • Sektor ICT (Pengeluaran)                             | - 2 petunjuk  |
| • Perdagangan Antarabangsa bagi barangan ICT           | - 2 petunjuk  |
| • ICT di dalam pendidikan                              | - 9 petunjuk  |

## 2. KUASA PERUNDANGAN

Survei E-Dagang Tahunan dilaksanakan di bawah **Akta Perangkaan 1965 (Disemak 1989)**. Di bawah **Seksyen 5** Akta ini, mana-mana pertubuhan yang beroperasi di Malaysia dikehendaki memberikan maklumat sebenar atau anggaran terbaik kepada Jabatan. Mengikut Akta ini, kandungan soal selidik adalah **sulit** dan hanya angka agregat yang diterbitkan.

## 3. SKOP DAN LIPUTAN

Penerbitan ini menggunakan data daripada Survei E-Dagang Tahunan 2024 (tahun rujukan 2023). Survei ini mengumpul maklumat daripada pertubuhan berdaftar dalam sektor Pertanian, Perlombongan & Pengkuarian, Pembuatan, Pembinaan dan Perkhidmatan. Klasifikasi industri merujuk kepada Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi 1.0 yang selaras dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Revision. 4, United Nations*. Liputan bagi keseluruhan sektor merangkumi 1,122 kategori industri seperti yang ditunjukkan pada **Jadual 1**.

**Jadual 1:** Bilangan industri mengikut sektor

| Sektor                     | Bilangan Industri |
|----------------------------|-------------------|
| Pertanian*                 | 140               |
| Perlombongan & pengkuarian | 56                |
| Pembuatan                  | 259               |
| Pembinaan                  | 72                |
| Perkhidmatan               | 595               |
| <b>Jumlah</b>              | <b>1,122</b>      |

Nota: (\*) Usahawan dalam sektor Pertanian yang hanya berdaftar dengan agensi-agensi kerajaan yang berkaitan bagi maksud menerima bantuan **TIDAK** diliputi kecuali pengusaha kelapa sawit.

#### 4. SUMBER RANGKA STATISTIK

Sumber utama rangka statistik pertubuhan adalah daripada *Malaysia Statistical Business Register (MSBR)* manakala bagi subsektor Penginapan termasuk perniagaan inap desa yang tidak berdaftar. MBSR adalah senarai pertubuhan/ perusahaan yang beroperasi di Malaysia yang merangkumi Daftar Syarikat (ROC), Daftar Perniagaan (ROB) dan Perkongsian Liabiliti Terhad (LLP) yang berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) serta pertubuhan yang berdaftar dengan Pihak Berkuasa Tempatan (PBT) dan badan profesional. Senarai di MBSR dikemaskini secara berkala berdasarkan survei dan bancian yang dijalankan oleh Jabatan Perangkaan Malaysia (DOSM) dan sumber data pentadbiran daripada pelbagai agensi. Sumber utama data pentadbiran adalah daripada SSM.

Selain itu, DOSM juga bekerjasama dengan agensi lain seperti Kumpulan Wang Simpanan Pekerja (KWSP), Jabatan Kastam Diraja Malaysia, Lembaga Hasil Dalam Negeri (LHDN), Pertubuhan Keselamatan Sosial (PERKESO), PBT, dan badan profesional. Rangka dikemaskini untuk mengambil kira pertubuhan baru dan sebarang perubahan yang berlaku kepada pertubuhan tersebut seperti tutup, tidak beroperasi, perubahan jenis aktiviti dan lokasi/ alamat pos untuk memastikan maklumat yang terdapat dalam rangka adalah yang paling terkini.

## 5. JENIS AKTIVITI PERNIAGAAN

Jenis aktiviti perniagaan merujuk kepada aktiviti utama dan sekunder. Aktiviti utama merujuk kepada aktiviti yang mana pertubuhan menumpukan sebahagian besar sumbernya atau memberi sumbangan besar dari segi pendapatan. Aktiviti sekunder didefinisikan sebagai aktiviti sampingan kepada aktiviti utama. Klasifikasi industri bagi pertubuhan adalah berasaskan kepada aktiviti utama dan Piawaian Klasifikasi Industri Malaysia (MSIC), 2008 Ver. 1.0. MSIC 2008 yang diselaraskan dengan *International Standard Industrial Classification of All Economics Activities (ISIC), Rev. 4*, yang diterbitkan oleh United Nations Statistic Division, dengan pengubahsuaian mengikut keperluan tempatan.

## 6. KONSEP DAN DEFINISI

Industri tersebut dikategorikan kepada lima sektor utama iaitu Pertanian, Perlombongan & Pengkuarian, Pembuatan, Pembinaan, dan Perkhidmatan. Definisi sektor adalah seperti berikut:

### 6.1 Pertanian

Merangkumi aktiviti penanaman, pemeliharaan dan penternakan haiwan dan pengeluaran produk haiwan, penebangan kayu balak dan tanaman lain, serta perikanan tangkapan dan akuakultur termasuk penggunaan sumber semulajadi tumbuh-tumbuhan dan haiwan. Terdapat empat subsektor iaitu tanaman, ternakan, perhutanan, & pembalakan dan perikanan.

**6.1.1 Tanaman** merujuk kepada penanaman dan pengeluaran produk tanaman termasuk pertanian organik. Tanaman juga meliputi penanaman tanaman tidak kekal dan kekal untuk tujuan pengeluaran benih;

**6.1.2 Ternakan** merujuk kepada binatang atau unggas yang dipelihara untuk tujuan komersil atau pembiakbakaan. Pengeluaran ternakan termasuk penternakan (ladang) dan pembiakan semua haiwan serta pengeluaran daripada hasil ternakan seperti telur, susu, madu, dan sebagainya;

**6.1.3 Perhutanan dan pembalakan** termasuk pengeluaran kayu balak untuk industri berasaskan kayu, meliputi pengestrakan dan pengumpulan produk hutan bukan kayu yang tumbuh liar. Selain pengeluaran kayu balak, aktiviti perhutanan yang menghasilkan produk melalui proses minima seperti kayu api, kayu arang, reja kayu dan kayu balak yang digunakan dalam bentuk yang belum diproses turut disertakan. Aktiviti ini boleh dijalankan dalam hutan asli dan ladang hutan. Ia juga termasuk sebahagian daripada aktiviti operasi perhutanan berdasarkan bayaran atau secara kontrak; dan

**6.1.4 Perikanan** termasuk perikanan tangkapan dan akuakultur meliputi penggunaan sumber perikanan daripada laut, air payau atau air tawar dengan tujuan menangkap dan mengumpul ikan, krustasia, moluska dan organisma dan produk laut lain. Akuakultur ialah proses pengeluaran yang melibatkan pengkulturan (termasuk tuaian) organisma akuatik menggunakan teknik yang direka bentuk untuk meningkatkan pengeluaran organisma tersebut melebihi kapasiti persekitaran semulajadi.

## **6.2 Perlombongan dan Pengkuarian**

Perlombongan dan Pengkuarian termasuk pengekstrakan mineral yang terjadi secara semulajadi seperti pepejal (batu arang dan bijih), cecair (petroleum) atau gas (gas asli). Pengekstrakan boleh dijalankan melalui pelbagai kaedah seperti perlombongan bawah tanah atau dedah, pengoperasian telaga, perlombongan dasar laut dan lain-lain. Walau bagaimanapun, subsektor perlombongan mineral dan pengkuarian tidak diliputi dalam penerbitan ini.

## **6.3 Pembuatan**

Perubahan fizikal atau kimia ke atas bahan atau komponen menjadi produk baru sama ada kerja itu dilakukan oleh jentera pacuan kuasa atau yang dijalankan dengan tangan, sama ada dilaksanakan di kilang atau di rumah pekerja dan sama ada barang keluaran dijual secara borong atau runcit.

Pengelasan lapan (8) subsektor mengikut bahagian adalah seperti berikut:

| Bahagian                          |                                               | Keterangan |
|-----------------------------------|-----------------------------------------------|------------|
| Produk makanan                    |                                               |            |
| 10                                | Pembuatan produk makanan                      |            |
| Minuman dan produk tembakau       |                                               |            |
| 11                                | Pembuatan minuman                             |            |
| 12                                | Pembuatan produk tembakau                     |            |
| Produk tekstil, pakaian dan kulit |                                               |            |
| 13                                | Pembuatan tekstil                             |            |
| 14                                | Pembuatan pakaian                             |            |
| 15                                | Pembuatan produk kulit dan barangan berkaitan |            |

| Bahagian                                                                     | Keterangan                                                                                                               |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Produk kayu, perabot, keluaran kertas dan percetakan</b>                  |                                                                                                                          |
| 16                                                                           | Pembuatan kayu dan produk kayu dan gabus, kecuali perabot; pembuatan bagi artikel jerami dan bahan-bahan anyaman perabot |
| 17                                                                           | Pembuatan kertas dan produk kertas                                                                                       |
| 18                                                                           | Percetakan dan penerbitan semula media rakaman                                                                           |
| 31                                                                           | Pembuatan perabot                                                                                                        |
| <b>Produk petroleum, kimia, getah dan plastik</b>                            |                                                                                                                          |
| 19                                                                           | Pembuatan kok dan produk petroleum bertapis                                                                              |
| 20                                                                           | Pembuatan kimia dan produk kimia                                                                                         |
| 21                                                                           | Pembuatan produk farmaseutikal asas, kimia perubatan dan botani                                                          |
| 22                                                                           | Pembuatan produk getah dan plastik                                                                                       |
| <b>Produk mineral bukan logam, logam asas &amp; produk logam yang direka</b> |                                                                                                                          |
| 23                                                                           | Pembuatan produk galian bukan logam lain                                                                                 |
| 24                                                                           | Pembuatan logam asas                                                                                                     |
| 25                                                                           | Pembuatan produk logam, kecuali mesin dan kelengkapan                                                                    |
| <b>Produk elektrik, elektronik dan optikal</b>                               |                                                                                                                          |
| 26                                                                           | Pembuatan komputer, produk elektronik dan optikal                                                                        |
| 27                                                                           | Pembuatan kelengkapan elektrik                                                                                           |
| 28                                                                           | Pembuatan jentera dan peralatan t.t.t.l.                                                                                 |
| <b>Peralatan pengangkutan, pembuatan lain dan pembaikan</b>                  |                                                                                                                          |
| 29                                                                           | Pembuatan kenderaan bermotor, treler dan semi treler                                                                     |
| 30                                                                           | Pembuatan kelengkapan pengangkutan lain                                                                                  |
| 32                                                                           | Pembuatan lain                                                                                                           |
| 33                                                                           | Membaiki dan pemasangan jentera dan kelengkapan                                                                          |

## 6.4 Pembinaan

Ditakrifkan sebagai pembinaan baru, pengubahsuaian, pembaikan dan perobohan. Pemasangan sebarang jenis jentera atau peralatan yang dipasang ketika pembinaan asal adalah diambil kira, demikian juga bagi pemasangan jentera atau peralatan selepas pembinaan asal tetapi memerlukan perubahan struktur bagi pemasangannya.

## 6.5 Perkhidmatan

Perkhidmatan berkaitan Bekalan elektrik, gas, wap & pendingin udara; Bekalan air, pembentungan, pengurusan sisa & aktiviti pemulihan; Perdagangan Borong & runcit; Pengangkutan & penyimpanan; Maklumat & komunikasi; Penginapan; Makanan & minuman; Kewangan; Hartanah; Profesional, saintifik & teknikal; Pentadbiran & khidmat sokongan; Pendidikan swasta; Kesihatan swasta & kerja sosial; Kesenian, hiburan & rekreasi dan Perkhidmatan persendirian & lain-lain aktiviti.

**6.5.1 Bekalan elektrik, gas, wap & pendinginan udara** adalah ditakrifkan sebagai aktiviti pembekalan tenaga elektrik, gas asli, wap, air panas dan seumpamanya melalui satu infrastruktur (rangkaian) tetap bagi talian, saluran utama dan paip. Dimensi rangkaian ini tidak dapat ditentukan; juga termasuk pengagihan elektrik, gas, wap, air panas dan seumpamanya di kawasan perindustrian atau bangunan tempat kediaman. Oleh itu, seksyen ini termasuk operasi utiliti elektrik dan gas yang menjana, mengawal dan mengagih tenaga elektrik atau gas. Juga termasuk bekalan wap dan pendinginan udara;

**6.5.2 Bekalan air; pembentungan, pengurusan sisa & aktiviti pemulihan** meliputi aktiviti yang berkaitan dengan pengurusan sisa termasuk pungutan, perawatan dan pelupusan seperti sisa terjadual, sisa pepejal dan air sisa daripada perindustrian dan isi rumah, termasuk juga pemulihan bahan dan tapak yang tercemar. Hasil sisa daripada proses perawatan boleh dilupus atau menjadi input kepada proses pengeluaran yang lain. Aktiviti yang berkaitan dengan perawatan dan bekalan air juga dimasukkan dalam sektor ini;

**6.5.3 Perdagangan borong & runcit** merangkumi perdagangan borong, perdagangan runcit, dan pembaikan kenderaan bermotor & motosikal;

- 6.5.4 Pengangkutan & penyimpanan** meliputi pertubuhan yang menyediakan perkhidmatan darat, pengangkutan muatan melalui jalan raya, pengangkutan darat lain, pengangkutan air, penggudangan & aktiviti sokongan seperti pengoperasian terminal, tempat letak kereta, pengoperasian lebuh raya, pengoperasian pelabuhan, pengendalian kargo/ pemunggahan, agensi perkapalan & penghantaran serta lain-lain aktiviti sokongan perkhidmatan pengangkutan;
- 6.5.5 Maklumat & komunikasi** terdiri daripada aktiviti penerbitan, penerbitan wayang gambar, video & program televisyen, rakaman bunyi & penerbitan muzik, pemrograman & penyiaran, perkhidmatan telekomunikasi, pengaturcaraan komputer, perundingan & aktiviti yang berkaitan dan perkhidmatan maklumat;
- 6.5.6 Perkhidmatan penginapan** merujuk kepada penyediaan tempat penginapan jangka pendek berbayar, sama ada dibuka kepada orang awam atau terhad kepada ahli sebuah pertubuhan tertentu. Ianya tidak termasuk penyewaan tempat tinggal berperabot jangka panjang yang dikelaskan dalam Hartanah;
- 6.5.7 Perkhidmatan makanan & minuman** termasuk perkhidmatan makanan & minuman yang menyediakan hidangan atau minuman lengkap untuk penggunaan segera, sama ada di restoran tradisional, restoran layan diri atau bawa pulang, yang didirikan secara kekal atau sementara dengan atau tiada kemudahan tempat duduk;
- 6.5.8 Perkhidmatan kewangan** adalah meliputi aktiviti perantaraan kewangan; aktiviti perkhidmatan kewangan lain dan aktiviti sokongan kepada perkhidmatan kewangan; aktiviti insurans/ takaful, insurans takaful semula dan tabungan pencen & hemat; dan aktiviti sokongan kepada insurans/ takaful dan tabungan pencen;
- 6.5.9 Perkhidmatan hartanah** termasuk tindakan seperti pemberi pajak, agen dan atau broker di dalam satu atau lebih daripada yang berikut: penjualan atau pembelian hartanah, penyewaan hartanah, penyediaan perkhidmatan hartanah lain seperti penilaian hartanah, pengurusan hartanah atau bertindak sebagai agen hartanah eskrow. Aktiviti dalam bahagian ini mungkin dijalankan di atas hartanah milikan sendiri atau pajakan dan mungkin berlaku atas dasar bayaran atau kontrak. Termasuk juga pembangunan struktur, berserta mengekalkan hak milik atau pajakan bagi struktur tersebut;

- 6.5.10 Perkhidmatan profesional, saintifik & teknikal** termasuk aktiviti profesional khusus, saintifik dan teknikal yang memerlukan tahap latihan yang tinggi dan menjadikan pengetahuan dan kemahiran khusus tersedia kepada pengguna. Aktiviti yang dijalankan termasuk aktiviti guaman & perakaunan, aktiviti ibu pejabat, aktiviti perundingan pengurusan, aktiviti arkitek & kejuruteraan, ujian & analisis teknikal, penyelidikan & pembangunan saintifik, pengiklanan & penyelidikan pasaran, profesional lain, aktiviti saintifik & teknikal dan veterinar;
- 6.5.11 Perkhidmatan pentadbiran & khidmat sokongan** termasuk pelbagai aktiviti yang menyokong operasi am perniagaan meliputi aktiviti sewaan & pajakan, aktiviti pekerjaan, agensi pengembaraan, operator pelancongan & aktiviti perkhidmatan penempahan lain, aktiviti keselamatan & penyiasatan, aktiviti perkhidmatan bangunan & lanskap dan aktiviti pengurusan pejabat, sokongan pejabat & perniagaan lain;
- 6.5.12 Perkhidmatan pendidikan swasta** merujuk kepada pertubuhan yang berdaftar dengan Kementerian Pendidikan Malaysia dan Kementerian Pengajian Tinggi yang menyediakan perkhidmatan pelajaran akademik, vokasional dan perdagangan. Aktiviti yang diliputi dalam kumpulan ini ialah pendidikan pra sekolah & pendidikan rendah, pendidikan menengah, pendidikan tinggi, pendidikan lain dan perkhidmatan sokongan lain;
- 6.5.13 Perkhidmatan kesihatan swasta & kerja sosial** meliputi aktiviti hospital, aktiviti amalan perubatan & pergigian, aktiviti kesihatan dan kemanusiaan lain, aktiviti rumah penjagaan, dan aktiviti kerja sosial tanpa penginapan;
- 6.5.14 Perkhidmatan kesenian, hiburan & rekreasi** termasuk pelbagai aktiviti bagi memenuhi minat orang awam dalam aktiviti kebudayaan, hiburan dan rekreasi meliputi persembahan secara langsung, operasi muzium, perjudian, sukan dan aktiviti rekreasi; dan
- 6.5.15 Perkhidmatan persendirian & lain-lain aktiviti** termasuk aktiviti keahlian organisasi, aktiviti organisasi keahlian perniagaan, majikan & profesional, aktiviti kesatuan buruh, aktiviti keahlian organisasi lain, pembaikan komputer & barangan persendirian dan isi rumah dan aktiviti perkhidmatan seperti basuhan dan cucian kering tekstil dan produk berbulu; dandanan rambut dan penjagaan kecantikan lain; dan pengebumian dan aktiviti perkhidmatan lain.

## 7. DEFINISI ICT

Berdasarkan definisi daripada *Organisation for Economic Co-operation and Development*

### a) **Komputer**

Termasuk komputer peribadi, komputer mudah alih (cth. komputer riba), tablet dan peranti mudah alih yang lain seperti \*telefon pintar.

### b) **Intranet**

Merujuk kepada rangkaian komunikasi dalaman menggunakan protokol internet dan membolehkan komunikasi dalam organisasi.

### c) **Extranet**

Merujuk kepada rangkaian tertutup yang menggunakan protokol internet dengan selamat dalam perkongsian maklumat perniagaan dengan pembekal, *vendor*, pelanggan atau rakan kongsi perniagaan lain. Ia juga boleh menjadi sebahagian daripada laman web peribadi perniagaan, yang mana rakan perniagaan boleh melayari selepas disahkan dalam halaman log masuk.

### d) **Rangkaian kawasan setempat (LAN)**

Rangkaian yang menghubungkan komputer dan peranti yang berkaitan di dalam kawasan setempat seperti bangunan persendirian, jabatan atau tapak; ia juga mungkin tanpa wayar.

### (e) **Rangkaian kawasan setempat tanpa wayar (WLAN)**

Rangkaian kawasan setempat yang menggunakan gelombang radio frekuensi tinggi dan bukannya wayar untuk berkomunikasi antara peranti yang dibolehkan oleh rangkaian. WLAN membolehkan pengguna bergerak di sekitar kawasan kecil dalam radius 20 hingga 91 meter.

### (f) **Rangkaian kawasan luas (WAN)**

Rangkaian yang menghubungkan komputer dan peranti yang berkaitan dalam kawasan geografi yang luas, seperti rantau atau negara.

#### **Nota.**

\*Malaysia termasuk telefon pintar

**g) Jalur lebar tetap**

Merujuk kepada teknologi dengan kelajuan sekurang-kurangnya 256 kbit/s dalam satu atau kedua-dua arah. Ia terdiri daripada jalur lebar tetap berwayar dan jalur lebar tetap tanpa wayar.

Akses internet melalui jalur lebar tetap berwayar yang paling banyak digunakan untuk menghantar/ menerima maklumat adalah melalui kabel/ gentian optik (ADSL, SDSL, VDSL), teknologi fiber optik/ teknologi kabel.

**h) Jalur lebar mudah alih**

Merujuk kepada teknologi pada kelajuan tidak kurang daripada 256 kbit/s dalam satu atau kedua-dua arah. Ia meliputi teknologi seperti 3G/ LTE/ 4G, 5G, UMTS, CDMA2000 dan teknologi masa hadapan termasuk kedua-dua langganan data standard dan khusus.

Kebiasaannya digunakan untuk peranti mudah alih (cth. komputer riba, tablet, modem tanpa wayar USB, telefon pintar dan peranti mudah alih lain).

Sambungan jalur lebar mudah alih ke internet merujuk kepada akses melalui *WIFI hotspot (tethering)* dan bukannya melalui *router* (cth. *USB dongle/ modem/ surfstick* seperti *YES dongle* dsb.).

**i) Laman sesawang**

Laman web adalah koleksi sumber web rangkaian yang berkaitan seperti laman sesawang, kandungan multimedia yang biasanya dikenal pasti dengan nama domain umum dan diterbitkan oleh sekurang-kurangnya satu pelayan sesawang. Laman sesawang boleh diakses menerusi rangkaian *Internet Protocol (IP)* awam seperti Internet atau rangkaian kawasan setempat peribadi (LAN) oleh URL yang mengenal pasti tapak tersebut. Sebuah laman sesawang boleh menjadi laman sesawang peribadi, laman sesawang korporat untuk sebuah syarikat, laman sesawang kerajaan, laman sesawang organisasi dan sebagainya.

**j) Media sosial**

Merujuk kepada mereka yang mempunyai profil pengguna, akaun atau lesen pengguna bergantung kepada keperluan dan jenis media sosial. Jenis media sosial adalah rangkaian sosial (cth. *Facebook, Instagram* dan *TikTok*), *Enterprise blogs* dan *microblogs Enterprise* (cth. *Twitter*) dan laman sesawang perkongsian kandungan multimedia (cth. *YouTube*).

**k) Internet mudah alih dan teknologi**

Internet mudah alih dan teknologi adalah produk yang tidak dapat dielakkan dalam pembangunan internet PC. Ia menggabungkan komunikasi mudah alih dan internet menjadi satu. Ini adalah istilah umum untuk aktiviti di mana teknologi, platform, model perniagaan dan aplikasi internet digabungkan dengan teknologi komunikasi mudah alih (cth. peralatan *mobile IT*, peralatan *Global Positioning System (GPS)*, *wireless debit/ credit card payment terminals*).

**l) Pengkomputeran awan**

Pengkomputeran awan merujuk kepada perkhidmatan ICT yang digunakan melalui internet untuk mengakses perisian, kuasa pengkomputeran, kapasiti penyimpanan, dll. (cth. *HUAWEI Cloud Server, AVM Cloud*).

**m) Analitik data**

Analitik data ialah satu proses atau upaya pengolahan data menjadi sebuah informasi baru agar ciri-ciri data tersebut menjadi lebih mudah difahami dan berguna untuk penyelesaian suatu permasalahan khususnya yang berhubung dengan kajian (cth. *Tableau, Big Data Analytics, Mobile Business Intelligence*).

**(n) Perisian pengurusan**

Perisian pengurusan ialah perisian aplikasi yang membantu pengguna semasa melakukan aktiviti pengurusan (cth. *Enterprise Resource Planning*, dll.).

**(o) Platform kolaborasi dalam talian**

Merujuk kepada perkongsian ekonomi (cth. *Lazada, Shoppe, Grab* dll.).

## **8. DEFINISI E-DAGANG**

Berdasarkan OECD, 2015, transaksi e-dagang adalah penjualan atau pembelian bagi barangan atau perkhidmatan, melalui rangkaian komputer yang telah direka untuk tujuan berkenaan. Transaksi e-dagang boleh berlaku di antara enterpris, isi rumah, inivididu, kerajaan dan organisasi awam atau swasta yang lain.

Barangan atau perkhidmatan yang telah dipesan melalui kaedah e-dagang, namun pembayaran atau penerimaan barangan atau perkhidmatan berkenaan boleh diterima sama ada melalui *online* atau *offline*.

Transaksi e-dagang termasuk pesanan yang dibuat di laman sesawang, extranet atau *electronic data interchange* (EDI). Walau bagaimanapun, transaksi yang dibuat melalui panggilan telefon, faksimili, emel (emel yang ditaip manual) dan seumpamanya tidak dikategorikan sebagai urusan e-dagang.

- a) **Pendapatan e-dagang** bermaksud jumlah pendapatan yang diperolehi oleh pertubuhan daripada transaksi e-dagang. Pendapatan untuk pertubuhan perdagangan borong dan runcit merujuk kepada nilai jualan barangan dan perkhidmatan. Nilai jualan bermaksud nilai semua barang di mana hak milik atau hak mutlak untuk penggunaan telah dipindahkan kepada orang lain dengan tujuan barang itu akan dibeli akhirnya.
- b) **Perbelanjaan e-dagang** bermaksud jumlah perbelanjaan bagi pertubuhan yang mempunyai transaksi e-dagang.
- c) **E-dagang mengikut jenis pasaran**
  - i) **Tempatan** bermaksud urusan e-dagang pendapatan/ perbelanjaan e-dagang yang melibatkan transaksi dalam negara Malaysia.
  - ii) **Antarabangsa** bermaksud urusan e-dagang pendapatan/ perbelanjaan e-dagang yang melibatkan transaksi luar negara.
- d) **E-dagang mengikut kategori pelanggan**
  - i) **Perniagaan lain**

Perniagaan ke Perniagaan (B2B) adalah transaksi e-dagang antara perniagaan yang menjual/ membeli produk atau perkhidmatan kepada/ daripada perniagaan lain. Sebagai contoh, pengeluar boleh menjual kepada pemborong atau pemborong boleh menjual kepada peruncit.
  - ii) **Pengguna individu**

Perniagaan kepada Pengguna (B2C) merupakan transaksi e-dagang di antara perniagaan dan pengguna, sama ada jualan, pembelian, atau perkhidmatan. Sebagai contoh perniagaan menjual produk pakaian kepada pengguna (pendapatan) atau perniagaan memberikan kupon diskaun kepada pengguna melalui platform e-dagang (perbelanjaan).

### iii) Kerajaan dan organisasi bukan perniagaan lain

Perniagaan kepada Kerajaan (B2G) adalah model perniagaan yang merujuk kepada perniagaan yang menjual/ membayar bagi produk, perkhidmatan atau maklumat pihak kerajaan atau agensi kerajaan. Rangkaian atau model B2G menyediakan cara bagi perniagaan untuk membida projek atau produk kerajaan yang mungkin dibeli atau diperlukan oleh kerajaan untuk organisasi mereka. Ini boleh merangkumi organisasi sektor awam yang mencadangkan tawaran. Kegiatan B2G semakin dilakukan melalui internet melalui penawaran *real-time*. B2G juga dirujuk sebagai pemasaran sektor awam.

## 9. PENGIRAAN PERATUS PENGGUNAAN ICT

### a) Penggunaan Komputer, Internet dan *Web Presence*

#### (i) Peratus penggunaan komputer

$$= \frac{\text{Bilangan pertubuhan yang menggunakan komputer}}{\text{Jumlah pertubuhan yang beroperasi}} \times 100$$

#### (ii) Peratus penggunaan internet

$$= \frac{\text{Bilangan pertubuhan yang menggunakan internet}}{\text{Jumlah pertubuhan yang beroperasi}} \times 100$$

#### (iii) Peratus pemilikan *web presence*

$$= \frac{\text{Bilangan pertubuhan yang mempunyai } web\ presence}{\text{Jumlah pertubuhan yang beroperasi}} \times 100$$

### b) Jenis *Web Presence* yang Dimiliki

#### (i) Peratus laman web kepunyaan sendiri

$$= \frac{\text{Bilangan pertubuhan yang mempunyai laman web kepunyaan sendiri}}{\text{Jumlah pertubuhan yang mempunyai } web\ presence} \times 100$$

#### (ii) Peratus laman web di entiti lain

$$= \frac{\text{Bilangan pertubuhan yang mempunyai laman web di entiti lain}}{\text{Jumlah pertubuhan yang mempunyai } web\ presence} \times 100$$

(iii) Peratus media sosial

$$= \frac{\text{Bilangan pertubuhan yang mempunyai media sosial}}{\text{Jumlah pertubuhan yang menggunakan } web\ presence} \times 100$$

(iv) Peratus e-pasaran

$$= \frac{\text{Bilangan pertubuhan yang mempunyai e – pasaran}}{\text{Jumlah pertubuhan yang menggunakan } web\ presence} \times 100$$

### c) Jenis Rangkaian Komputer yang Digunakan

(i) Peratus intranet

$$= \frac{\text{Bilangan pertubuhan yang mempunyai intranet}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(ii) Peratus extranet

$$= \frac{\text{Bilangan pertubuhan yang mempunyai extranet}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(iii) Peratus rangkaian kawasan setempat (LAN)

$$= \frac{\text{Bilangan pertubuhan yang mempunyai LAN}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(iv) Peratus rangkaian kawasan setempat tanpa wayar (WLAN)

$$= \frac{\text{Bilangan pertubuhan yang mempunyai WLAN}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(v) Peratus rangkaian kawasan luas (WAN)

$$= \frac{\text{Bilangan pertubuhan yang mempunyai WAN}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(vi) Peratus rangkaian komputer lain

$$= \frac{\text{Bilangan pertubuhan yang mempunyai rangkaian infrastruktur lain}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

**d) Jenis Capaian Internet**

- (i) Peratus penggunaan jalur lebar tetap

$$= \frac{\text{Bilangan pertubuhan yang mempunyai jalur lebar tetap}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

- (ii) Peratus penggunaan jalur lebar mudah alih

$$= \frac{\text{Bilangan pertubuhan yang mempunyai jalur lebar mudah alih}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

- (iii) Peratus penggunaan kedua-dua jalur lebar

$$= \frac{\text{Bilangan pertubuhan yang mempunyai kedua-dua jalur lebar}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

**e) Tujuan Penggunaan Internet**

- (i) Peratus menghantar atau menerima emel

$$= \frac{\text{Bilangan pertubuhan yang menghantar atau menerima emel}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

- (ii) Peratus penggunaan telefon melalui internet

$$= \frac{\text{Bilangan pertubuhan yang menggunakan telefon melalui internet}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

- (iii) Peratus menghantar informasi atau pesanan dengan segera

$$= \frac{\text{Bilangan pertubuhan yang menghantar informasi atau pesanan segera}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

- (iv) Peratus mendapatkan maklumat barangan atau perkhidmatan

$$= \frac{\text{Bilangan pertubuhan yang mendapatkan maklumat barangan atau perkhidmatan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(v) Peratus mendapatkan maklumat dari organisasi kerajaan

$$= \frac{\text{Bilangan pertubuhan yang mendapatkan maklumat dari organisasi kerajaan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(vi) Peratus penggunaan berhubung dengan organisasi kerajaan

$$= \frac{\text{Bilangan pertubuhan yang berhubung dengan organisasi kerajaan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(vii) Peratus penggunaan perbankan internet

$$= \frac{\text{Bilangan pertubuhan yang menggunakan perbankan internet}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(viii) Peratus mengakses perkhidmatan kewangan yang lain

$$= \frac{\text{Bilangan pertubuhan yang mengakses perkhidmatan kewangan lain}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(ix) Peratus penyediaan perkhidmatan pelanggan

$$= \frac{\text{Bilangan pertubuhan yang menyediakan perkhidmatan pelanggan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(x) Peratus penggunaan penghantaran produk secara atas talian

$$= \frac{\text{Bilangan pertubuhan yang menghantar produk secara atas talian}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(xi) Peratus penggunaan pemberitahuan jawatan kosong dalaman atau luaran

$$= \frac{\text{Bilangan pertubuhan yang memberitahu jawatan kosong dalaman atau luaran}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(xii) Peratus penggunaan untuk latihan kakitangan (aplikasi e-pembelajaran)

$$= \frac{\text{Bilangan pertubuhan yang membuat latihan kakitangan (aplikasi e – pembelajaran)}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(xiii) Peratus penggunaan internet untuk lain-lain

$$= \frac{\text{Bilangan pertubuhan yang menggunakan internet untuk lain – lain tujuan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

#### **f) Penggunaan Teknologi Digital**

(i) Peratus penggunaan laman web

$$= \frac{\text{Bilangan pertubuhan yang menggunakan laman web}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(ii) Peratus penggunaan media sosial

$$= \frac{\text{Bilangan pertubuhan yang menggunakan media sosial}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(iii) Peratus penggunaan internet mudah alih dan teknologi

$$= \frac{\text{Bilangan pertubuhan yang menggunakan internet mudah alih dan teknologi}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(iv) Peratus penggunaan pengkomputeran awam

$$= \frac{\text{Bilangan pertubuhan yang menggunakan pengkomputeran awam}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(v) Peratus penggunaan analitik data

$$= \frac{\text{Bilangan pertubuhan yang menggunakan analitik data}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(vi) Peratus penggunaan perisian pengurusan

$$= \frac{\text{Bilangan pertubuhan yang menggunakan perisian pengurusan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(vii) Peratus penggunaan platform kolaborasi atas talian

$$= \frac{\text{Bilangan pertubuhan yang menggunakan kolaborasi atas talian}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(viii) Peratus penggunaan teknologi digital untuk lain-lain

$$= \frac{\text{Bilangan pertubuhan yang menggunakan teknologi digital untuk lain – lain tujuan}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

(ix) Peratus tiada penggunaan teknologi digital

$$= \frac{\text{Bilangan pertubuhan yang tiada menggunakan teknologi digital}}{\text{Jumlah pertubuhan yang menggunakan internet}} \times 100$$

## 10. TAHUN SURVEI

Tahun survei adalah merujuk kepada tahun pelaksanaan survei.

## 11. TAHUN RUJUKAN

Tahun rujukan bagi survei ini adalah tahun takwim 2023. Pertubuhan yang mempunyai tahun kewangan yang berbeza daripada tahun takwim diminta menyediakan laporan mengikut tahun perakaunan atau kewangan yang meliputi sebahagian besar daripada tahun rujukan.

## 12. KAEDAH PENGUMPULAN DATA

Survei ini secara umumnya dijalankan dengan menggunakan tiga (3) kaedah pengumpulan data seperti berikut:

### a) Kaedah atas talian melalui portal e-survey

Kaedah ini menyasarkan responden yang telah menggunakan kaedah ini bagi survei rutin terdahulu.

### b) Kaedah kutipan data melalui e-mel, pos, faks dan telefon

Kaedah ini menyasarkan responden yang pernah terlibat dengan survei rutin terdahulu. Responden diberi tempoh satu bulan untuk melengkapkan dan mengembalikan borang soal selidik tersebut kepada DOSM.

**c) Kaedah kutipan data secara bersemuka**

Kerja luar operasi di lapangan dijalankan untuk mendapatkan maklum balas daripada pertubuhan yang belum memberi jawapan dari kedua-dua kaedah ini menyasarkan pertubuhan yang tidak pernah terlibat dengan survei rutin DOSM.

### **13. UNIT PELAPOR**

Unit pelapor bagi survei ini ialah pertubuhan. Sesebuah pertubuhan secara ideal ditakrifkan sebagai “satu unit ekonomi yang bergiat di bawah satu hak milik atau penguasaan tunggal, iaitu di bawah satu entiti yang sah. Ia menjalankan satu jenis subsektor ekonomi utama di satu tempat/ lokasi fizikal”. Setiap pertubuhan diberikan klasifikasi industri berdasarkan aktiviti utamanya dan bukannya mengikut aktiviti syarikat induk.

Setiap cawangan daripada organisasi yang mempunyai beberapa cawangan di lokasi yang berbeza dari segi konsep dianggap sebagai pertubuhan yang berlainan. Pertubuhan berkenaan diminta memberikan penyata yang berasingan bagi setiap kegiatannya dari segi nilai. Walau bagaimanapun, dari segi praktis akaun biasanya disediakan secara berpusat kerana kesukaran untuk memperoleh data yang berasingan bagi setiap unit atau cawangan. Entiti atau ‘enterprise’ ini akan dianggap sebagai satu unit pelapor dan dibenarkan mengemukakan soal selidik yang menggabungkan semua unit atau cawangannya.

### **14. REKA BENTUK PENSAMPELAN**

Reka bentuk pensampelan bagi survei ini adalah pensampelan rawak strata satu peringkat. Kategori industri 2D di peringkat nasional telah diklasifikasikan sebagai strata manakala pertubuhan sebagai unit pensampelan.

Setiap strata (industri) telah dibentuk kepada empat substrata untuk memastikan sampel yang diagihkan mengambil kira ciri-ciri ekonomi industri tersebut. Substrata utama bersifat heterogen diliputi secara liputan penuh. Manakala, substrata selainnya bersifat homogen disampelkan.

Substrata utama meliputi pertubuhan kategori besar yang mempunyai jumlah hasil yang signifikan dalam industri liputan manakala bagi substrata kedua hingga keempat berdasarkan kategori perusahaan mikro, kecil dan sederhana (PMKS).

## 15. SAIZ SAMPEL

Statistik utama yang digunakan untuk penganggaran saiz sampel adalah jumlah hasil. Formula yang digunakan dalam penganggaran saiz sampel bagi strata adalah seperti berikut:

$$n = \frac{(\sum N_i S_i)^2}{V + \sum N_i S_i^2}$$

di mana;

$n$  = Saiz sampel

$N_i$  = Saiz populasi bagi strata  $i$

$S_i$  = Varian bagi strata  $i$

$V$  = Varian sasaran

$$V = RSE^2 \cdot \left( \frac{\hat{Y}_i}{Z} \right)^2$$

di mana;

$\hat{Y}_i$  = Jumlah hasil bagi strata  $i$

$Z$  = Ralat piawai relatif

$RSE$  = Nilai aras keyakinan

Sampel akan diagihkan kepada substrata dalam industri liputan dengan menggunakan kaedah Neyman Allocation seperti berikut:

$$n_{hi} = \left( \frac{N_h S_h}{\sum N_h S_h} \right) n'_i$$

$$h = 2, 3, \text{ dan } 4, \quad i = 1, 2, \dots k$$

di mana;

$n_{hi}$  = Saiz sampel bagi substrata  $h$  dalam strata  $i$

$N_h$  = Saiz populasi bagi substrata  $h$

$S_h$  = Sisihan piawai bagi substrata  $h$

$n_i$  = Saiz sampel bagi strata  $i$

$h$  = Substrata

$i$  = Strata

Saiz sampel bagi survei ini adalah 15,000 pertubuhan. Pertubuhan kategori besar diliputi sepenuhnya, manakala pertubuhan bagi substrata kedua hingga keempat dipilih secara rawak mengikut kaedah pensampelan bersistematik.

## 16. WAJARAN

Analisis berwajaran disediakan menggunakan wajaran bagi memastikan sampel yang dipilih dapat menggambarkan populasi survei. Wajaran yang diperlukan adalah wajaran di peringkat reka bentuk pensampelan dan wajaran tiada respons.

Wajaran reka bentuk pensampelan pada substrata  $h$  adalah seperti berikut :

$$W_h = \frac{N_h}{n_h} \quad h = 1, \dots, 4$$

di mana;

$N_h$  = Bilangan populasi bagi substrata  $h$ ; dan

$n_h$  = Bilangan sampel bagi substrata  $h$

Wajaran tiada respons pada substrata  $h$  adalah seperti berikut:

$$NRH_h = \frac{1}{n'_h/n_h} \quad , h = 1, \dots, 4$$

di mana;

$n'_h$  = Bilangan sampel respons bagi substrata  $h$

$n_h$  = Bilangan sampel bagi substrata  $h$

Kaedah pengiraan wajaran reka bentuk pensampelan selepas survei (*adjusted weight*) pada substrata  $h$  seperti berikut:

$$W'_h = W_h \times NRW_h \quad , h = 1, \dots, 4$$

di mana;

$W_h$  = Wajaran reka bentuk pensampelan pada substrata  $h$

$NRW_h$  = Wajaran tiada respons pada substrata  $h$

## 17. PENERBITAN DAN SEMAKAN DATA

Penerbitan ini memberikan semakan anggaran pendapatan e-dagang bagi tahun 2023 hingga Suku Tahun Pertama 2025. Semakan adalah berdasarkan data terkini survei tahunan dan akaun syarikat bagi tahun 2023. Bagi tahun terkini 2022 hingga Suku Tahun Pertama 2025 anggaran adalah berdasarkan kepada sumber data suku tahunan.

## 18. PEMBUNDARAN

Jumlah bagi komponen mungkin berbeza dengan jumlah besar dalam jadual penerbitan disebabkan oleh pembundaran angka.

## 19. SIMBOL DAN SINGKATAN

|          |   |                                                         |
|----------|---|---------------------------------------------------------|
| -        | : | Tiada                                                   |
| &        | : | dan                                                     |
| %        | : | peratus                                                 |
| b        | : | bilion                                                  |
| cth      | : | contoh                                                  |
| dll.     | : | dan lain-lain                                           |
| RM       | : | Ringgit Malaysia                                        |
| ISIC     | : | <i>International Standard Industrial Classification</i> |
| MSIC     | : | Piawaian Klasifikasi Industri Malaysia                  |
| t.t.t.l. | : | tidak terkelas di tempat lain                           |
| Ver.     | : | Versi                                                   |
| W.P.     | : | Wilayah Persekutuan                                     |
| ST       | : | Suku Tahun                                              |
| QoQ      | : | Perubahan peratus suku tahun ke suku tahun              |
| YoY      | : | Perubahan peratus tahun ke tahun                        |

# TECHNICAL NOTES

## 1. INTRODUCTION

*This report provides information on usage of ICT and e-commerce by establishment for reference year 2023. The data were collected and compiled from Annual E-Commerce Survey in 2024.*

*The ICT indicators has been developed by the World Summit on the Information Society (WSIS) and was launched in June 2004. The purpose of the core list as a guidance/ input to countries that are conducting ICT surveys. The core list also assists in produce quality and internationally comparable ICT data.*

*There are 48 ICT indicators in six groups as follows:*

- |                                                                |                        |
|----------------------------------------------------------------|------------------------|
| • <i>ICT infrastructure and access</i>                         | - <i>10 indicators</i> |
| • <i>Usage and access of ICT by households and individuals</i> | - <i>13 indicators</i> |
| • <i>Usage of ICT by businesses</i>                            | - <i>12 indicators</i> |
| • <i>ICT sector (producing)</i>                                | - <i>2 indicators</i>  |
| • <i>International trade in ICT goods</i>                      | - <i>2 indicators</i>  |
| • <i>ICT in education</i>                                      | - <i>9 indicators</i>  |

## 2. LEGAL AUTHORITY

*The Annual E-Commerce Survey is conducts under the **Statistics Act 1965 (Revised 1989)**. **Section 5** under this Act requires any establishment operating in Malaysia to provide actual or best estimate information to the Department. According to the Act, the contents of the questionnaire are **confidential** and only aggregate figures are published.*

## 3. SCOPE AND COVERAGE

*This publication used data from Annual E-Commerce Survey 2024 (reference year 2023). The survey collected information from registered establishments in Agriculture, Mining & quarrying, Manufacturing, Construction and Services sectors. This classifications for industries were referring to Malaysia Standard Industrial Classification (MSIC) 2008 Version 1.0, which is in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 United Nations. The coverage for all sectors encompasses 1,122 categories of industries as shown in **Table 1**.*

**Table 1: Number of industries by sector**

| <b>Sector</b>                 | <b>Number of Industries</b> |
|-------------------------------|-----------------------------|
| <i>Agriculture*</i>           | 140                         |
| <i>Mining &amp; quarrying</i> | 56                          |
| <i>Manufacturing</i>          | 259                         |
| <i>Construction</i>           | 72                          |
| <i>Services</i>               | 595                         |
| <b>Total</b>                  | <b>1,122</b>                |

*Note: (\*) Entrepreneurs in the Agriculture sector which registered with relevant government agencies for the purpose of receiving aid were **NOT** covered except palm oil's entrepreneurs.*

#### **4. SOURCE OF STATISTICAL FRAME**

*The main source for the establishment statistics frame is from the Malaysia Statistical Business Register (MSBR), while for the accomodation sub-sector, includes unregistered homestay. MSBR is a list of organisations/ enterprises operating in Malaysia that includes the Register of Companies (ROC), Register of Business (ROB), and Limited Liability Partnership (LLP) registered with the Companies Commission of Malaysia (CCM) as well as organisations registered with local authorities (LA) and professional bodies. The list in MSBR is updated regularly based on surveys and censuses conducted by the Department of Statistics Malaysia (DOSM) and administrative data sources from various agencies. The main source of administrative data is from the CCM.*

*In addition, DOSM also works together to obtain the latest information from other agencies such as the Employees' Provident Fund (EPF), the Royal Malaysian Customs Department, the Inland Revenue Board (IRB), Social Security Organisation (SOCSSO), LA and professional bodies. The frame is updated by taking into account new establishments such as closed down, not in operation, change in activity and location/ correspondence address so as to ensure that the frame is at the most current status.*

## 5. TYPES OF BUSINESS ACTIVITY

Type of business activity refers to both principal and secondary activities. The principal activity refers to the activity to which the establishment devoted most of its resources or activity which derived most of its income. Secondary activities are defined as those incidental or ancillary to the principal activity. The classification of the industry of the establishment is based on the principal activity and is in accordance with the Malaysia Standard Industrial Classification (MSIC), 2008 Ver. 1.0. The MSIC 2008 conforms to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, published by United Nations Statistics Division, with modifications to suit local conditions.

## 6. CONCEPT AND DEFINITIONS

The industries are categorised into five main sectors namely Agriculture, Mining & Quarrying, Manufacturing, Construction and Services. The sectoral definitions include the following activities:

### 6.1 Agriculture

Agriculture comprising the activities of growing, breeding and rearing of animals and production of animal products, felling of trees and other plants, as well as capture fishery and aquaculture includes the use/ utilisation of plants/ vegetal and animals natural resources. There are four subsectors:

**6.1.1 Crops** refer to production of crops products including organic farming. Crops also include the growing of non-perennial and perennial crops for the purpose of seed production;

**6.1.2 Livestocks** refer to animals or bird that are preserved for commercial and breeding purposes. Livestock production includes raising (farming) and breeding of all animals, also production of livestock products such as eggs, milk, honey, etc;

**6.1.3 Forestry and logging** includes the production of round wood for the forest based manufacturing industries as well as the extraction and gathering of wild growing non-wood forest product. Besides the production of timber, forestry activities which produce the product through the minimum process, such as fire wood, charcoal, wood chips and round wood used in unprocessed form are also included. These activities can be carried out in natural or forests plantation. This also includes part of the forestry operation based on fee or contract basis; and

**6.1.4 Fisheries** comprise of fishing and aquaculture, covering the use of fishery resources from marine, brackish or freshwater, with the purpose of capturing or gathering fish, crustaceans, molluscs and other marine organisms and products. Aquaculture refers to the production process involving the culturing or farming (including harvesting) of aquatic organisms using techniques designed to increase the production of the organisms beyond the natural capacity of the environment.

## **6.2 Mining & Quarrying**

Mining and quarrying include the extraction of minerals occurring naturally as solids (coal and ores), liquids (petroleum) or gases (natural gas). Extraction can be achieved by different methods such as underground or surface mining, well operation, seabed mining, etc. However, the sub-sector of mineral mining and quarrying was not covered in this publication.

## **6.3 Manufacturing**

The physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail.

The classification of eight (8) sub-sectors by division are as follows:

| <b>Division</b>                                       | <b>Description</b>                          |
|-------------------------------------------------------|---------------------------------------------|
| <b>Food products</b>                                  |                                             |
| 10                                                    | Manufacture of food products                |
| <b>Beverages and tobacco products</b>                 |                                             |
| 11                                                    | Manufacture of beverages                    |
| 12                                                    | Manufacture of tobacco products             |
| <b>Textiles, wearing apparel and leather products</b> |                                             |
| 13                                                    | Manufacture of textiles                     |
| 14                                                    | Manufacture of wearing apparel              |
| 15                                                    | Manufacture of leather and related products |

| <b>Division</b>                                                                   | <b>Description</b>                                                                                                                  |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wood products, furniture, paper products and printing</b>                      |                                                                                                                                     |
| 16                                                                                | <i>Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials</i> |
| 17                                                                                | <i>Manufacture of paper and paper products</i>                                                                                      |
| 18                                                                                | <i>Printing and reproduction of recorded media</i>                                                                                  |
| 31                                                                                | <i>Manufacture of furniture</i>                                                                                                     |
| <b>Petroleum, chemical, rubber and plastic products</b>                           |                                                                                                                                     |
| 19                                                                                | <i>Manufacture of coke and refined petroleum products</i>                                                                           |
| 20                                                                                | <i>Manufacture of chemicals and chemical products</i>                                                                               |
| 21                                                                                | <i>Manufacture of basic pharmaceutical, medicinal chemical and botanical products</i>                                               |
| 22                                                                                | <i>Manufacture of rubber and plastics products</i>                                                                                  |
| <b>Non-metallic mineral products, basic metal &amp; fabricated metal products</b> |                                                                                                                                     |
| 23                                                                                | <i>Manufacture of other non-metallic mineral products</i>                                                                           |
| 24                                                                                | <i>Manufacture of basic metals</i>                                                                                                  |
| 25                                                                                | <i>Manufacture of fabricated metal products, except machinery and equipment</i>                                                     |
| <b>Electrical, electronic and optical products</b>                                |                                                                                                                                     |
| 26                                                                                | <i>Manufacture of computer, electronics and optical products</i>                                                                    |
| 27                                                                                | <i>Manufacture of electrical equipment</i>                                                                                          |
| 28                                                                                | <i>Manufacture of machinery and equipment n.e.c.</i>                                                                                |
| <b>Transport equipment, other manufacturing and repair</b>                        |                                                                                                                                     |
| 29                                                                                | <i>Manufacture of motor vehicles, trailers and semi-trailers</i>                                                                    |
| 30                                                                                | <i>Manufacture of other transport equipment</i>                                                                                     |
| 32                                                                                | <i>Other manufacturing</i>                                                                                                          |
| 33                                                                                | <i>Repair and installation of machinery and equipment</i>                                                                           |

## **6.4 Construction**

*New construction, alteration, repair and demolition. The installation of any machinery or equipment installed which is built-in at the time of the original construction is included, as well as installation of machinery or equipment after the original construction but which requires structural alteration in order install.*

## **6.5 Services**

*Services related to Electricity, gas, steam & air conditioning supply; Water supply, sewerage, waste management & remediation activities, Wholesale & retail trade; Transportation & storage; Information & communication; Accommodation; Food & beverage; Finance; Real estate; Professional, scientific & technical; Administrative & support services; Private education; Private health & social work; Art, entertainment & recreation and Personal services & other activities.*

**6.5.1 Electricity, gas, steam & air conditioning** are defined as an activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. The dimensions of the network is not decisive; also included are the distribution of electricity, gas, steam, hot water and the like in industrial parks or residential buildings. This section therefore includes the operation of electric gas utilities, which generate, control and distribute electric power or gas. Also included is the provision of steam & air-conditioning supply;

**6.5.2 Water supply; sewerage, waste management & remediation activities** comprised of activities related to waste management includes collection, treatment & disposal such as scheduled waste, solid waste and waste water from industrial and household, including recovery materials & contaminated sites. The waste from the treatment process can be disposed of or used as input for other production process. Related activities in water treatment and supply are also included in this sector;

**6.5.3 Wholesale & retail trade** encompasses of wholesale and retail trades, sales and repair of motor vehicles & motorcycles;

- 6.5.4 Transportation & storage** includes all establishments provided land transport, freight transport by road, other land transport, water transport, warehousing & supporting activities such as storage & warehousing, terminal operations, car parking services, highway operations, port operations, cargo handling/stevedoring, shipping agencies & forwarding of freight and other supporting activities for transportation services;
- 6.5.5 Information & communication** comprises activities of publishing, motion picture, video & television programme production, sound recording & music publishing, programming & broadcasting, telecommunication services, computer programming, consultancy & related activities and information services;
- 6.5.6 Accommodation services** refer to the provision on a fee of short-term lodging, whether open to the general public or restricted to members of a particular organisation. It excludes rental of long term furnished accommodation which is classified in Real Estate;
- 6.5.7 Food & beverages services** include food and beverage serving activities providing complete meals or drinks fit for immediate consumption, whether in traditional restaurants, self-service or take-away restaurants, whether as permanent or temporary stands with or without seating;
- 6.5.8 Financial services** include monetary intermediation activities; other financial service activities and activities auxiliary to financial services; insurance/ takaful, reinsurance/ retakaful and pension & provident funding activities; and activities auxiliary to insurance/ takaful and pension funding;
- 6.5.9 Real estate services** include acting as lessors, agents and/or brokers in one or more of the following: selling or buying real estate, renting real estate, providing other real estate services such as appraising real estate, property management or acting as real estate escrow agents. Activities in this division may be carried out on own or leased property and may be done on a fee or contract basis. Also included is the building of structures, combined with maintaining ownership of leasing of such structures;

- 6.5.10 Professional, scientific & technical** includes specialised professional, scientific & technical activities which require a high degree of expertise and training, and specialised knowledge and skills available to users. Activities performed include legal & accounting activities, activities of head offices, management consultancy activities, architecture & engineering activities, technical testing & analysis, scientific research & development, advertising & market research, other professional, scientific & technical activities and veterinary activities;
- 6.5.11 Administrative & support services** includes a variety of activities that support general business operations, including rental & leasing activities, employment activities, travel agency, tour operator & other reservation service activities, security & investigation activities, services to buildings and landscape activities & office administrative, office support & other business support activities;
- 6.5.12 Private educational services** refer to establishments registered with the Ministry of Education, Malaysia and the Ministry of Higher Education that provides academic, pre-primary & primary education, secondary education, higher education, other education and educational support activities;
- 6.5.13 Private health & social work services** include hospital services, medical & dental practice activities, other human health activities, residential care activities and social work activities without accommodation;
- 6.5.14 Arts, entertainment & recreation services** include a wide range of activities to meet varied cultural, entertainment & recreational interests of the general public, including live performances, operation of museum sites, gambling, sport and recreation activities; and
- 6.5.15 Personal services & other activities** includes activities of membership organisations, activities of business, employers and professional membership organisations, activities of trade unions, activities of others membership organisations, repair of computers and personal & household goods and other personal services activities such as washing and dry-cleaning of textiles and fur products; hairdressing and other beauty treatment and funeral and other services activities.

## 7. ICT DEFINITION

*Based on Organisation for Economic Co-operation and Development (OECD) 2015 definition:*

**a) Computer**

*Computer includes personal computer, portable computer (e.g. laptop), tablet and other devices such as \*smartphone.*

**b) Intranet**

*Refers to the internal communications network using internet protocols and allowing communication within the organisation.*

**c) Extranet**

*Refers to a closed network that uses internet protocols to secure the sharing of business information with suppliers, vendors, customers or other business partners. It also can be part of a personal website business, where business partners can navigate after being confirmed in the login page.*

**d) Local area network (LAN)**

*A network connecting computers and associated devices within a localised area such as a single building, department or site; it may be wireless.*

**e) Wireless local area network (WLAN)**

*Local area network using high frequency radio waves instead of wires to communicate between networks-enabled devices. WLAN allows users to move around a small area within a radius of 20 to 91 meters.*

**f) Wide area network (WAN)**

*A network that connects computers and associated devices within a wide geographic area, such as a region or country.*

**g) Fixed broadband**

*Refers to a technology with a speed of at least 256 kbit/s in one or both directions. It consists of wired fixed broadband and fixed wireless broadband.*

*Wired fixed broadband internet access most commonly used to send/ receive information via cable/ fiber optic (ADSL, SDSL, VDSL), fiber optic technology/ cable technology.*

**Note.**

*\*Malaysia including smartphone*

**h) Mobile broadband**

*Refers to technology at speeds of not less than 256 kbit/s in one or both directions. It covers technologies such as 3G/ LTE/ 4G, 5G, UMTS, CDMA2000 and future technologies including both standard and dedicated data subscriptions. Typically used by mobile devices (e.g. laptops, tablets, USB wireless modems, smart phones and other mobile device).*

*Mobile broadband connection to the internet refers to access via WIFI hotspot (tethering) and not through a router (e.g. USB dongle/ modem/ surfstick such as YES dongle etc.).*

**i) Website**

*A website is a collection of network-related web resources such as a website, multimedia content that is usually identified by a common domain name and published by at least one web server. Websites can be accessed through public Internet Protocol (IP) networks such as the Internet or private local area network (LAN) by the URL that identifies the site. A website can be a personal website, a corporate website for a company, a government website, an organisation website and so on.*

**j) Social media**

*Refers to those who have a user profile, account or user license depending on the needs and types of social media. Types of social media are social networks (e.g. Facebook, Instagram and TikTok), enterprise blogs or enterprise microblogs (e.g. Twitter) and multimedia content sharing websites (e.g. YouTube).*

**k) Mobile internet and technologies**

*Refers to an inevitable product in the development of the PC internet. It combines mobile and internet communications into one. This is a general term for activities where technology, platforms, business models and internet applications are combined with mobile communication technology (e.g. mobile IT equipment, Global Positioning System (GPS) equipment, wireless debit/ credit card payment terminals).*

**l) Cloud computing**

*Cloud computing refers to ICT services used over the internet to access software, computing power, storage capacity, etc. (e.g. HUAWEI Cloud Server, AVM Cloud).*

**m) Data analytic**

*Data analytic is a process or effort to process data into new information so that the characteristics of the data become easier to understand and useful for solving problems, especially those related to research (e.g. Tableau, Big Data Analytics, Mobile Business Intelligence).*

**n) Management software**

*Management software is application software that helps users while performing management activities (e.g. Enterprise Resource Planning, etc.).*

**o) Collaborative online platforms**

*Refers to economic partnerships (e.g. Lazada, Shopee, Grab, etc.).*

## **8. E-COMMERCE DEFINITIONS**

*Based on OECD, 2015, e-commerce transaction is defined as sale or purchase of goods or services, through a network of computers that have been designed for this purpose. E-commerce transactions can occur between enterprises, households, individuals, governments and public or private organisation to another.*

*Goods or services that have been ordered through e-commerce methods, but the payment or receipt of goods or services can be received either through online or offline.*

*E-commerce transaction, includes orders placed on websites, extranet or Electronic Data Interchange (EDI). However, the transactions made by telephone, fax, e-mail (mail that is typed manually) and the similar transactions are not categorised as e-commerce transactions.*

- a) E-commerce income** means the total income of establishments with e-commerce transactions. Income for wholesale and retail trade establishments refers to the value of sales of goods and services. Sales value means the value of all items for which ownership or effective right to use with a view to ultimate purchase, has been transferred to others.

**b) E-commerce expenditure** means the amount of expenses for establishments that have e-commerce transactions.

**c) E-commerce by type of market**

(i) **Domestic** means e-commerce transactions sales/ purchase that conducted in Malaysia.

(ii) **International** means e-commerce transactions sales/ purchase that conducted which involves international transaction.

**d) E-commerce by type of customers**

**i) Other business**

*Business to Business (B2B) is related to e-commerce transaction between businesses which sell/ buy products or services to/ from another business. For example, a manufacturer can sell to a wholesaler or a wholesaler can sell to a retailer.*

**ii) Individual consumers**

*Business to Consumer (B2C) is related to e-commerce transaction between businesses and consumers which sell/ buy products or services. For example, business sells garment to consumer (income) or business provide discount coupon to consumers through e-commerce platform (expenditure).*

**iii) Government and other non-business organisations**

*Business to Government (B2G) is a business model that refers to businesses selling/ paying for products, services or information governments or government agencies. B2G networks or models provide a way for businesses to bid on government projects or products that governments might purchase or need for their organisations. This can encompass public sector organisations that propose the bids. B2G activities are increasingly being conducted via the internet through real-time bidding. B2G is also referred to as public sector marketing.*

## **9. USAGE OF ICT PERCENTAGE CALCULATION**

### **a) Usage of Computer, Internet and Web Presence**

(i) *Percentage of computer usage*

$$= \frac{\text{Number of establishment used computer}}{\text{Number of establishment operating}} \times 100$$

(ii) *Percentage of internet usage*

$$= \frac{\text{Number of establishment used internet}}{\text{Number of establishment operating}} \times 100$$

(iii) *Percentage of business having web presence*

$$= \frac{\text{Number of establishment having web presence}}{\text{Number of establishment operating}} \times 100$$

### **b) Type of Web Presence Owned**

(i) *Percentage of owned website*

$$= \frac{\text{Number of establishment with owned website}}{\text{Number of establishment operating having web presence}} \times 100$$

(ii) *Percentage of presence on another entity's website*

$$= \frac{\text{Number of establishment with web presence on another entity's website}}{\text{Number of establishment operating having web presence}} \times 100$$

(iii) *Percentage of social media*

$$= \frac{\text{Number of establishment with social media}}{\text{Number of establishment operating having web presence}} \times 100$$

(iv) *Percentage of e-marketplace*

$$= \frac{\text{Number of establishment with e – marketplace}}{\text{Number of establishment operating having web presence}} \times 100$$

### **c) Type of Computer Network Infrastructure Used**

(i) *Percentage of intranet*

$$= \frac{\text{Number of establishment owned intranet}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) *Percentage of extranet*

$$= \frac{\text{Number of establishment owned extranet}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) *Percentage of local area network (LAN)*

$$= \frac{\text{Number of establishment owned LAN}}{\text{Number of establishment operating using internet}} \times 100$$

(iv) *Percentage of wireless local area network (WLAN)*

$$= \frac{\text{Number of establishment owned WLAN}}{\text{Number of establishment operating using internet}} \times 100$$

(v) *Percentage of wide area network (WAN)*

$$= \frac{\text{Number of establishment owned WAN}}{\text{Number of establishment operating using internet}} \times 100$$

(vi) *Percentage of other area network*

$$= \frac{\text{Number of establishment owned other infrastructure network}}{\text{Number of establishment operating using internet}} \times 100$$

### **d) Type of Internet Access**

(i) *Percentage of fixed broadband usage*

$$= \frac{\text{Number of establishment owned fixed broadband}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) *Percentage of mobile broadband usage*

$$= \frac{\text{Number of establishment owned mobile broadband}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) *Percentage of both types of broadband usage*

$$= \frac{\text{Number of establishment owned both types of broadband}}{\text{Number of establishment operating using internet}} \times 100$$

**e) Purpose of Internet Usage**

(i) *Percentage of sending or receiving email*

$$= \frac{\text{Number of establishment used for sending or receiving email}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) *Percentage of telephoning over the internet usage*

$$= \frac{\text{Number of establishment used telephoning over the internet}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) *Percentage of posting information or instant messaging*

$$= \frac{\text{Number of establishment posting information or instant messaging}}{\text{Number of establishment operating using internet}} \times 100$$

(iv) *Percentage of getting information about goods or services*

$$= \frac{\text{Number of establishment getting information about goods or services}}{\text{Number of establishment operating using internet}} \times 100$$

(v) *Percentage of getting information from government organisations*

$$= \frac{\text{Number of establishment getting information from gov. organisations}}{\text{Number of establishment operating using internet}} \times 100$$

(vi) *Percentage of interacting with government organisations usage*

$$= \frac{\text{Number of establishment interacting with government organisations}}{\text{Number of establishment operating using internet}} \times 100$$

(vii) *Percentage of internet banking usage*

$$= \frac{\text{Number of establishment used internet banking}}{\text{Number of establishment operating using internet}} \times 100$$

(viii) *Percentage of accessing other financial services*

$$= \frac{\text{Number of establishment accessing other financial services}}{\text{Number of establishment operating using internet}} \times 100$$

(ix) *Percentage of providing customer service*

$$= \frac{\text{Number of establishment providing customer service}}{\text{Number of establishment operating using internet}} \times 100$$

(x) *Percentage of delivering products online*

$$= \frac{\text{Number of establishment delivering product online}}{\text{Number of establishment operating using internet}} \times 100$$

(xi) *Percentage of internal or external recruitment*

$$= \frac{\text{Number of establishment used internal or external recruitment}}{\text{Number of establishment operating using internet}} \times 100$$

(xii) *Percentage of staff training usage (e-learning applications)*

$$= \frac{\text{Number of establishment used for staff (e – learning)}}{\text{Number of establishment operating using internet}} \times 100$$

(xiii) *Percentage of internet usage for others*

$$= \frac{\text{Number of establishment used for others}}{\text{Number of establishment operating using internet}} \times 100$$

#### **f) Usage of Digital Technology**

(i) *Percentage of website usage*

$$= \frac{\text{Number of establishment used for website}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) *Percentage of social media usage*

$$= \frac{\text{Number of establishment used for social media}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) *Percentage of mobile internet and technologies usage*

$$= \frac{\text{Number of establishment used for mobile internet and technologies}}{\text{Number of establishment operating using internet}} \times 100$$

(iv) *Percentage of cloud computing usage*

$$= \frac{\text{Number of establishment used for cloud computing}}{\text{Number of establishment operating using internet}} \times 100$$

(v) *Percentage of data analytics usage*

$$= \frac{\text{Number of establishment used for data analytics}}{\text{Number of establishment operating using internet}} \times 100$$

(vi) *Percentage of managements software usage*

$$= \frac{\text{Number of establishment used for management software}}{\text{Number of establishment operating using internet}} \times 100$$

(vii) *Percentage of online collaborative platforms usage*

$$= \frac{\text{Number of establishment used for online collaborative platforms}}{\text{Number of establishment operating using internet}} \times 100$$

(viii) *Percentage of digital technology usage for other purposes*

$$= \frac{\text{Number of establishment used for other purposes}}{\text{Number of establishment operating using internet}} \times 100$$

(ix) *Percentage of not using digital technologies*

$$= \frac{\text{Number of establishment not using digital technologies}}{\text{Number of establishment operating using internet}} \times 100$$

## **10. SURVEY YEAR**

*Survey year refers to the year in which a survey was conducted.*

## **11. REFERENCE YEAR**

*The reference year of the survey was the calendar year 2023. Establishments whose accounting year differed from calendar year were requested to report according to the accounting year or financial year covering the major part of the reference period.*

## **12. METHOD OF DATA COLLECTION**

*This survey generally conducted through three (3) methods, namely;*

### **a) Data collection method via Online method through the e-survey portal**

*This method targets respondents who have used this method for previous routine surveys.*

### **b) Data collection method via e-mail, post, fax and telephone**

*This method targets respondents who have used this method for previous routine surveys. Respondents were given a period of one (1) month to complete and return the questionnaire to DOSM.*

### **c) Face-to-face data collection method**

*Field work operation is carried out to get feedback from establishments that have not yet given answers from the two (2) methods above and this method also targets establishments that have never been involved in a routine DOSM survey.*

## **13. REPORTING UNIT**

*The reporting unit used in the survey was establishment. An establishment is defined as “an economic unit that engaged in one activity, under a single legal entity and operating in a single physical location”. Each establishment was assigned an industry classification based on its principal activity.*

*Each branch of a multi-branch organisation at a different location was conceptually treated as a different establishment. The establishment was requested to give separate returns for each activity in terms of value. However, if in practice, the accounts were centrally kept such that it was not possible to obtain separate data for each individual unit or branch, that entity or enterprise was treated as a single reporting unit and allowed to submit a consolidated questionnaire covering all units or branches.*

## 14. SAMPLING DESIGN

*Sampling design of the survey is a one-stage stratified random sampling. Categories of industries at two (2) digit MSIC at national level have been classified as stratum and the establishment as the sampling unit.*

*Each stratum (industry) has been set up to four substrata to ensure the distributed sample takes into account the economic characteristics of the industry. The main substratum is heterogeneous, was fully covered. Whereas, other substratum that are homogeneous were sampled.*

*Main substratum include large establishments that have a significant total revenue in the Industry while for the second to fourth substratum are based on micro, small and medium enterprise (MSME) categories.*

## 15. SAMPLE SIZE

*The main statistics used to estimate the sample size is the total revenue. The formula used in the estimation of the sample size for a stratum is as follows:*

$$n = \frac{(\sum N_i S_i)^2}{V + \sum N_i S_i^2}$$

*where;*

$n$  = Sample size

$N_i$  = Population size for stratum  $i$

$S_i$  = Variance for stratum  $i$

$V$  = Desired variance

$$V = RSE^2 \cdot \left( \frac{\hat{Y}_i}{Z} \right)^2$$

*where;*

$\hat{Y}_i$  = Estimated total revenue for stratum  $i$

$RSE$  = Relative standard error

$Z$  = Value of confidence level

Sample is distributed to substratum of the industry using Neyman Allocation method as follows:

$$n_{hi} = \left( \frac{N_h S_h}{\sum N_h S_h} \right) n'_i$$

$$h = 2, 3, \text{ dan } 4, \quad i = 1, 2, \dots k$$

where;

$n_{hi}$  = Sample size for substratum  $h$  of stratum  $i$

$N_h$  = Population size for stratum  $h$

$S_h$  = Standard deviation for substratum  $h$

$n_i$  = Sample size for stratum  $i$

$h$  = Substratum

$i$  = Stratum

The sample size for this survey is 15,000 establishments. Establishments of the large categories were fully covered while establishments of the second to fourth substratum were randomly selected using systematic random sampling.

## 16. WEIGHTS

Weighted analysis is done using sampling weight to ensure that the selected sample can reflect population survey. The weights required are the sampling design weight and non-response weight.

The sampling design weight for the establishment at stratum  $h$  is as follows :

$$W_h = \frac{N_h}{n_h}, n = 1, \dots, 4$$

where;

$N_h$  = Total population of substratum  $h$ ; and

$n_h$  = Total sample of substratum  $h$

*Non response weight at substratum h as below:*

$$NRH_h = \frac{1}{n'_h/n_h}, h = 1, \dots, 4$$

*where;*

$n'_h$  = Sampling design weight at substratum h

$n_h$  = Non response weight at substratum h

*The method of calculating the sampling design weight after the survey (adjusted weight) on substratum h as below:*

$$W'_h = W_h \times NRW_h, h = 1, \dots, 4$$

*where;*

$W_h$  = Sampling design weight at substratum h

$NRW_h$  = Non response weight at substratum h

## **17. PUBLICATION AND DATA REVISION**

*The publication presents the revision of the estimation e-commerce income for the year 2023 until First Quarter 2025. The revisions were based on the latest data of annual surveys and account of company for the year 2023. For the latest year 2022 until First Quarter 2025, estimation was based on the quarterly data sources.*

## **18. ROUNDING**

*The sum of the component figures may not tally with the sub-total or total figures due to rounding.*

## 19. SYMBOLS AND ABBREVIATIONS

|               |   |                                                         |
|---------------|---|---------------------------------------------------------|
| -             | : | <i>Nil</i>                                              |
| &             | : | <i>and</i>                                              |
| %             | : | <i>per cent</i>                                         |
| <i>b</i>      | : | <i>billion</i>                                          |
| <i>etc.</i>   | : | <i>et cetera</i>                                        |
| <i>e.g.</i>   | : | <i>example</i>                                          |
| <i>RM</i>     | : | <i>Ringgit Malaysia</i>                                 |
| <i>ISIC</i>   | : | <i>International Standard Industrial Classification</i> |
| <i>MSIC</i>   | : | <i>Malaysian Standard Industrial Classification</i>     |
| <i>n.e.c.</i> | : | <i>not elsewhere classified</i>                         |
| <i>Ver.</i>   | : | <i>Version</i>                                          |
| <i>W.P.</i>   | : | <i>Federal Territory</i>                                |
| <i>Q</i>      | : | <i>Quarter</i>                                          |
| <i>QoQ</i>    | : | <i>Percentage change quarter-on-quarter</i>             |
| <i>YoY</i>    | : | <i>Percentage change year-on-year</i>                   |