

NOTA TEKNIKAL
TECHNICAL NOTES

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1. PENDAHULUAN

Data dalam penerbitan ini dikumpul melalui Survei Perdagangan Borong & Runcit Bulanan yang merangkumi sektor Perdagangan Borong dan Runcit bermula pada Januari 2014;

Walaupun bagaimanapun, untuk tujuan penerbitan ini, statistik yang dilaporkan adalah bermula tahun 2022.

2. OBJEKTIF

Penerbitan ini membentangkan maklumat nilai jualan dalam sektor Perdagangan Borong dan Runcit. Survei yang dijalankan ini adalah untuk:

- Menyediakan indikator jangka pendek sektor Perdagangan Borong dan Runcit;
- Menyediakan input dalam penyusunan Indeks Perdagangan Borong dan Runcit bulanan;
- Menyediakan maklumat bagi penyusunan Keluaran Dalam Negeri Kasar Suku Tahunan; dan
- Membantu pihak kerajaan dan organisasi lain termasuk komuniti perniagaan dalam merancang dan membuat keputusan berdasarkan fakta.

3. SKOP DAN LIPUTAN

Survei ini meliputi semua pertubuhan yang berdaftar dengan badan-badan kawal selia yang terlibat dalam Perkhidmatan Perdagangan Borong & Runcit.

4. KONSEP DAN DEFINISI

Klasifikasi industri adalah berasaskan kepada Piawaian Klasifikasi Industri Malaysia 2008 Ver.1.0. Klasifikasi yang diguna pakai adalah selaras dengan *International Standard Industrial Classification All Economic Activities, Revision 4, United Nations Statistics Division*. Manakala, perdagangan borong dan runcit yang digunapakai dalam penerbitan ini berasaskan kepada saranan di dalam Manual *International Recommendations for Distributive Trade Statistics 2008* (IRDTS 2008) yang diterbitkan oleh *United Nations Statistics Division*. Definisi tersebut adalah termasuk aktiviti berikut:

4.1 Perdagangan Borong & Runcit

4.1.1 Perdagangan Borong

Merujuk kepada penjualan semula (tanpa pengubahsuaian) barangan baharu dan barang yang telah digunakan kepada peruncit, pengguna perindustrian, perdagangan, institusi atau profesional; atau kepada pemborong lain; atau menjual dagangan kepada orang atau syarikat berkenaan.

Pemborong selalunya memasang, memilih dan mengklasifikasikan barang dalam lot-lot besar; memecahkan muatan yang besar, membungkus semula dan membotol (kecuali bekas yang kedap udara) dan membahagi semula kepada lot-lot kecil; menyimpan, menyejuk, menghantar dan memasang barang dan juga turut serta dalam promosi jualan untuk pelanggan dan rekabentuk label.

4.1.2 Perdagangan Runcit

Merujuk kepada penjualan semula (jualan tanpa pengubahsuaian) barang baharu dan terpakai kepada orang awam untuk kegunaan peribadi atau isi rumah.

4.1.3 Kenderaan Bermotor

Merujuk kepada jualan secara borong dan runcit kenderaan bermotor dan motosikal, sama ada baharu atau terpakai, jualan alat-alat ganti dan aksesori kenderaan, penyelenggaraan dan pembaikan kenderaan bermotor dan motosikal termasuk mencuci, mengilap serta agen komisen.

4.2 Indeks Volum Perdagangan Borong & Runcit

4.2.1 Jenis Indeks Volum

Indeks Volum Perdagangan Borong & Runcit diukur pada tempoh rujukan berbanding tahun asas, (2015=100).

5. UNIT MELAPOR

Survei ini dilaksanakan dengan menggunakan pendekatan **pertubuhan**. Pertubuhan ditakrifkan sebagai “satu unit ekonomi yang bergiat di bawah satu aktiviti, di bawah penguasaan tunggal yang sah dan beroperasi di satu lokasi fizikal”. Setiap pertubuhan diberikan klasifikasi industri yang berdasarkan aktiviti utama dan bukannya mengikut syarikat induk.

6. NILAI JUALAN

Definisi ini terpakai kepada **Perdagangan Borong & Runcit**.

Nilai jualan merujuk kepada:

- (a) nilai semua **barang** di mana hak milik atau hak mutlak untuk penggunaan telah dipindahkan kepada orang lain dengan tujuan barang itu akan dibeli akhirnya; dan
- (b) nilai **perkhidmatan** yang diberikan dalam tempoh laporan tanpa mengambil kira masa dan cara pembayaran dibuat.

Nilai jualan dalam survei ini merujuk kepada **jumlah bayaran** yang dibayar oleh pelanggan-pelanggan. Ia termasuk:

- (a) harga jualan;
- (b) caj-caj pinjaman kewangan, pengiriman dan pemasangan, jika perkhidmatan ini diberikan oleh pertubuhan yang diliputi.

7. KUASA PERUNDANGAN

Maklumat yang dikumpul adalah mengikut peruntukan **Akta Perangkaan 1965 (Disemak 1989)**. Seksyen 5 di bawah Akta ini menghendaki mana-mana pertubuhan yang beroperasi di Malaysia untuk memberikan maklumat sebenar atau anggaran terbaik kepada Jabatan. Mengikut Akta ini, kandungan soal selidik adalah **sulit** dan hanya angka agregat diterbitkan. Sementara itu, Seksyen 7 di bawah Akta yang sama memperuntukkan denda kepada responden yang gagal memberi kerjasama kepada survei yang dijalankan.

8. POLISI PINDAAN

- Bagi data bulanan, perubahan tertakluk kepada sumber data, semakan adalah $t-1$ di mana t merujuk kepada bulan semasa.
- Bagi data suku tahunan, perubahan tertakluk kepada sumber data, semakan adalah $t-1$ di mana t merujuk kepada suku tahun semasa.
- Bagi data tahunan, perubahan tertakluk kepada sumber data, semakan adalah $t-3$ di mana t merujuk kepada tahun semasa.

9. METODOLOGI

9.1. Populasi

Semua pertubuhan meliputi 179 industri (5 digit) berasaskan kod Piawaian Klasifikasi Industri Malaysia 2008 Ver 1.0.

9.2. Rangka pensampelan

Berdasarkan populasi yang telah dikenal pasti, pertubuhan yang beroperasi sehingga Disember 2022 disenaraikan sebagai rangka pensampelan.

9.3. Reka bentuk pensampelan

Reka bentuk pensampelan bagi survei ini adalah pensampelan rawak strata satu peringkat. Kategori industri 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, sub strata selainnya bersifat homogen, disampelkan.

Substrata utama meliputi pertubuhan kategori besar yang mempunyai hasil yang signifikan dalam industri liputan manakala bagi substrata kedua hingga keempat dibentuk berdasarkan Kaedah *Cumulative Square Root Frequency*. Kaedah ini membentuk sempadan bagi setiap substrata.

9.4. 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:

di mana;

n	=	Saiz sampel
N_i	=	Saiz populasi bagi strata i
S_i^2	=	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 nilai hasil bagi strata i
RSE	=	Ralat piawai relatif
Z	=	Nilai aras keyakinan

Sampel akan diagihkan kepada sub strata dalam industri liputan dengan menggunakan kaedah *Neyman Allocation* seperti berikut:

$$n_{hi} = \left(\frac{N_h S_h}{\sum N_h S_h} \right) n_i$$

$$h = 2, 3 \text{ dan } 4$$

$$i = 1, 2, \dots, k$$

di mana;

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

$$N_h = \text{Saiz populasi bagi substrata } h$$

$$S_h = \text{Sisihan piawai bagi substrata } h$$

$$n_i = \text{Saiz sampel bagi strata } i$$

$$h = \text{Substrata}$$

$$i = \text{Strata}$$

Pertubuhan kategori besar diliputi sepenuhnya, manakala pertubuhan bagi substrata kedua hingga keempat dipilih secara rawak mengikut kaedah pensampelan bersistematik.

9.5. 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 bagi pertubuhan pada strata h adalah seperti berikut:

$$W_h = \frac{N_h}{n_h}$$

di mana,

$$N_h = \text{Jumlah populasi substrata } h; \text{ dan}$$

$$n_h = \text{Jumlah sampel substratum } h$$

Wajaran tiada respons pada substrata h adalah seperti berikut :

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

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

10. PEMBUNDARAN

Penjumlahan komponen mungkin berbeza dengan angka jumlah kecil atau jumlah besar disebabkan pembundaran.

1. INTRODUCTION

The data for this publication was collected through the Monthly Survey of Wholesale & Retail Trade which comprise of the Wholesale & Retail Trade sector started in the January 2014;

However, for this publication, the statistics presented commenced from 2022.

2. OBJECTIVES

This publication presents information on sales value in Wholesale & Retail Trade sector. The main objectives of this survey are to:

- *Provide short term indicators of Wholesale & Retail Trade sector;*
- *Provide input towards the compilation of Monthly Index of Wholesale & Retail Trade sector;*
- *Provide information for the compilation of Quarterly Gross Domestic Product; and*
- *Assist the government and other organisation as well as business community in planning and decision making based on evidence.*

3. SCOPE AND COVERAGE

The surveys cover all registered establishments of the relevant regulatory bodies engaged in the Wholesale & Retail Trade.

4. CONCEPTS AND DEFINITIONS

The classification of the industry is based on the Malaysia Standard Industrial Classification 2008 Ver. 1.0. The classification conforms to the International Standard Industrial Classification of All Economic Activities, Revision 4, United Nations Statistics Division. Meanwhile, the concepts of wholesale and retail trade adopted in this publication is based on recommendation in the Manual of International Recommendations for Distributive Trade Statistics 2008 (IRDTS 2008) published by the United Nations Statistics Division. The definition of industries are as follows:

4.1 Wholesale and Retail Trade

4.1.1 Wholesale Trade

Refers to the resale (sale without transformation) of new and used goods to retailers; industrial, commercial, institutional or professional users; or to other wholesalers; or selling merchandise to, such persons or companies.

Wholesalers frequently physically assemble, sort and grade goods in large lots; break bulk, repack and bottle (except in air-tight containers) and redistribute in smaller lots; store, refrigerate, deliver and install goods as well as engage in sales promotion for customers and label design.

4.1.2 Retail Trade

Refers to the resale (sale without transformation) of new and used goods to the general public for personal or household consumption or utilisation.

4.1.3 Motor Vehicles

Refers to wholesale and retail sale of motor vehicles and motorcycles, either new or used, sale of motor vehicle parts and accessories, maintenance and repair of motor vehicles and motorcycles including washing, polishing as well as commission agents.

4.2 Index Volume of Wholesale and Retail Trade

4.2.1 Type of Volume Index

The Volume Index of Wholesale & Retail Trade measured in the reference period as compared to the base period, (2015=100).

5. REPORTING UNIT

*The reporting unit is an **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 and not by its parent company.*

6. SALES VALUE

This definition is applicable to Wholesale and Retail Trade.

Sales value refer to:

- (a) the value of all **goods**, for which ownership or effective right to use with a view to ultimate purchase, has been transferred to others; and*
- (b) the value of **services** rendered during the inquiry period, irrespective of time or method of payment.*

*The sales value in this survey refers to the **total sum paid** by the customers. It includes:*

- (a) sales price;*
- (b) financing, delivery and installation charges, if these services are rendered by the establishment enumerated.*

7. CONFIDENTIALITY REQUIREMENTS

*The information is gathered under the provisions of the **Statistics Act 1965 (Revised 1989)**. Section 5 of this Act requires all establishments services operating in Malaysia to provide actual information or best estimates to the Department. The Act stipulates that the content of individual returns are **confidential** and only aggregated figures are published. Meanwhile, Section 7 under the same Act provides the penalty to the respondents that could not comply with the surveys undertaken.*

8. REVISIONS POLICY

- For monthly data, subject to changes in data source, revision is $t-1$ where t refers to current month.*
- For quarterly data, subject to changes in data source, revision is $t-1$ where t refers to current quarter.*
- For annual data, subject to changes in data source, revision is $t-3$ where t refers to current year.*

9. METHODOLOGY

9.1. Population

All establishments encompass of 179 industries (5 digits) based on Malaysia Standard Industrial Classification 2008 Ver 1.0.

9.2. Sampling frame

From the identified population, establishments that are still operating as at December 2022 were listed as sampling frame.

9.3. Sampling design

Sampling design of the survey is a one-stage stratified random sampling. Industries at national level have been classified as stratum and the establishment as the sampling unit.

Each stratum (industry) has been set up into four sub stratum to ensure the sample is distributed taking into account the economy characteristics of the industry. The main substratum is heterogeneous, was fully covered while other sub stratum that is homogeneous were sampled.

Main substratum comprise large establishments that have significant total revenue in the industry while for the second to fourth substratum were formed based on Cumulative Frequency Square Root Method. This method forms the boundaries, for each substratum.

9.4. 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^2	=	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:

$$n_{hi} = \left(\frac{N_h S_h}{\sum N_h S_h} \right) n_i$$

$$h = 2, 3 \text{ and } 4$$

$$i = 1, 2, \dots, k$$

where;

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

$$N_h = \text{Population size for substratum } h$$

$$S_h = \text{Standard deviation for substratum } h$$

$$n_j = \text{Sample size for stratum } i$$

$$h = \text{Substratum}$$

$$j = \text{Stratum}$$

Establishments of the large categories were fully covered while establishments of the second to fourth substratum were randomly selected using systematic random sampling.

9.5. Weight

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:

$$W_h = \frac{N_h}{n_h}$$

where,

$$N_h = \text{Total population of substratum } h; \text{ and}$$

$$n_h = \text{Total sample of substratum } h$$

Weight for non response at sub stratum h as below:

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

where;

n'_h = Number of response sampel for substratum h ; and

n_h = Number of sampel for substratum h

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

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

where,

W_h = Sampling design weight at substratum h

NRW_h = Non response weight at substratum h

10. ROUNDING

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