6th INTERNATIONAL CONFERENCE ON BIG DATA FOR OFFICIAL STATISTICS

Monitoring the socio-economic impact of Covid-19 (including use of timely, high-frequency and experimental data)

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Date: 1 September 2020 (Tuesday)
Time :   9.00 am - 10.30 am (Malaysia Time)
10.00 am – 11.30 am (Korean Time)

@StatsMalaysia
@MyCensus2020

www.dosm.gov.my

www.mycensus.gov.my

CHRONOLOGY OF MOVEMENT CONTROL ORDER (MCO)

First MCO
The Prime Minister of Malaysia has announced the first MCO to last between 18th and 31st March 2020.

Second MCO
On 25th March 2020, the MCO was extended by two weeks, until 14th April 2020.

Third MCO
Subsequently, the MCO was extended until 28th April 2020.

Fourth MCO
MCO extended again to 12th May 2020 on 23rd April 2020. Conditional Movement Control Order (CMCO) planned to ease the lockdown by allowing businesses to open on 4th May 2020 was announced on 1st May 2020.

CMCO
Prime Minister has announced that Conditional Movement Control Order (CMCO) implementation will be extended for 4 additional weeks. The end date for CMCO was 9th June 2020.

RMCO
On 7th June 2020, Prime Minister announced that the CMCO would end on 9th June 2020, with the country entering into the Recovery Movement Control Order (RMCO) phase between 10th June 2020 and 31st August 2020. Interstate travel would be allowed from 10th June 2020 under the RMCO except in areas remaining under the Enhanced Movement Control Order (EMCO).

RMCO is extended until 31 December 2020

Department of Statistics MALAYSIA

STATSBDA
BIG DATA ANALYTICS
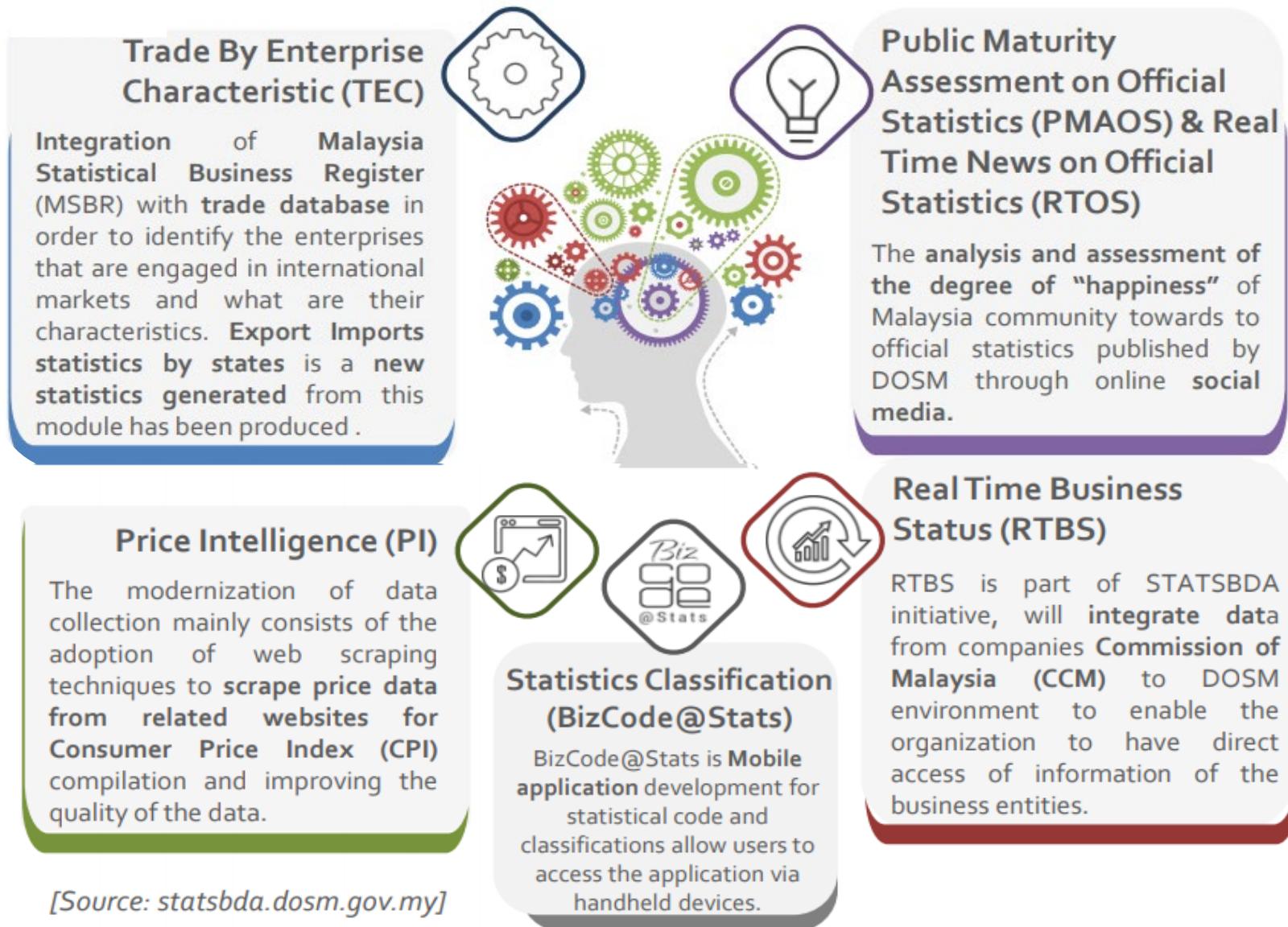
Department of Statistics Malaysia (DOSM) embarking on **Statistical Big Data Analytics (STATSBDA)** project and digitalization of data collection and dissemination.

The objectives of STATSBDA are :
1) To modernise the data collection;
2) To allow high accuracy;
3) To reduce respondents' burden;
4) To use as supplements for existing data in production of certain statistics; and
5) To produce new statistics indicators.

Trade By Enterprise Characteristic (TEC)

Integration of Malaysia Statistical Business Register (MSBR) with **trade database** in order to identify the enterprises that are engaged in international markets and what are their characteristics. **Export Imports statistics by states** is a **new statistics generated** from this module has been produced .

Public Maturity Assessment on Official Statistics (PMAOS) & Real Time News on Official Statistics (RTOS)

The **analysis and assessment of the degree of "happiness"** of Malaysia community towards to official statistics published by DOSM through online **social media.**

Price Intelligence (PI)

The modernization of data collection mainly consists of the adoption of web scraping techniques to **scrape price data from related websites for Consumer Price Index (CPI)** compilation and improving the quality of the data.

Statistics Classification (BizCode@Stats)

BizCode@Stats is **Mobile application** development for statistical code and classifications allow users to access the application via handheld devices.

Real Time Business Status (RTBS)

RTBS is part of STATSBDA initiative, will **integrate data** from companies **Commission of Malaysia (CCM)** to DOSM environment to enable the organization to have direct access of information of the business entities.

[Source: statsbda.dosm.gov.my]

A modernisation of data collection tools for improving the quality of Consumer Price Index (CPI) in Malaysia.

1. Modernization of data collection tools

Adoption of web scraping techniques
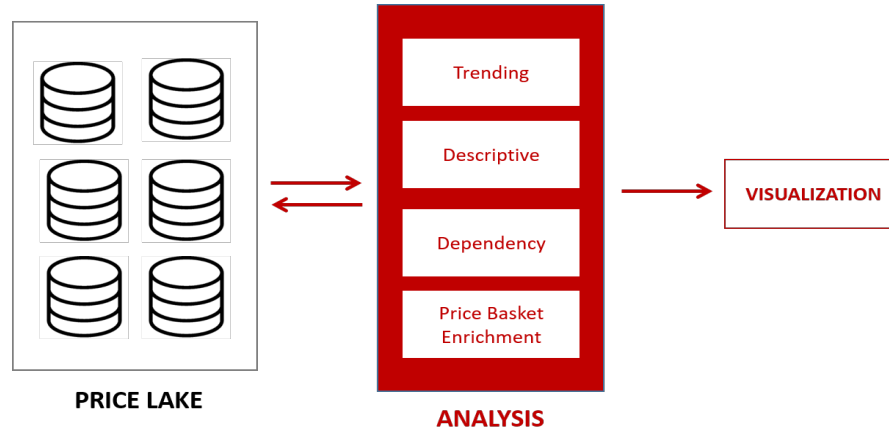- Automated processes implemented using a web crawler

2. Data is gathered and copied from the web

A collection of automated and semi automated techniques

3. Data retrieval and analysis

Discovering;
- Previously unknown patterns in data; and
- Relationship that can be used for prediction of user-relevant quantiles

PRICE LAKE

Trending

Descriptive

Dependency

Price Basket Enrichment

ANALYSIS

VISUALIZATION

The Price Intelligence Module encompasses:
- Price Frequency,
- Distribution of Average Price by Strata Category,
- Trend of Average Price by Strata Category,
- Trend of Average Price by State,
- Price Distribution by State,
- Average Price by State and Price Mode.

❑ The **global food trade** has impacted many countries in terms of demand and supply due to COVID-19. Food production was disrupted due to government restrictions and caused widespread concern about the need for commodities for adequate daily living and rising commodity prices.

❑ DOSM has **created a landing page** showing the **average price change for selected items** recorded during the MCO.

❑ To facilitate public understanding, the prices of selected goods such as fruits, vegetables and livestock products are displayed using an interactive infographic.

- *Import of Bovine Meat, 2000-2019*
- *Malaysia's Import of Selected Food Products*
- *Malaysia's Imports of Selected Food Products and Top Origin Countries 2019*
- *Malaysia's Import of Selected Vegetables and Top Origin Countries 2019*
- *Malaysia's Imports of Selected Vegetables*
- *Malaysia's Imports of Selected Fruits*
- *Malaysia's Imports of Selected Livestock Products*
- *Malaysia's Imports of Selected Livestock Products and Top Origin Countries 2019*
- *Malaysia's Imports of Selected Fruits and Top Origin Countries 2019*
- *Malaysia's Imports of Selected Fishery Products*
- *Malaysia's Imports of Selected Fishery Products and Top Origin Countries 2019*

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MALAYSIA
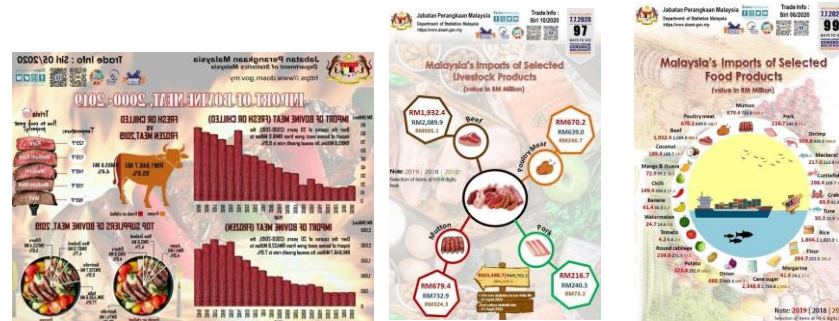
✓ New reports statistics also have been released successfully during the COVID-19 pandemic crisis.
✓ DOSM managed to release **new daily / weekly reports or statistics** based on the government requirements to assist countries in the COVID-19 pandemic crisis. Among the report we produced are:

1. Statistics & Info-Media
❑ Summary of daily news coverage based on local and international news agencies on COVID-19 issues and connecting the effects of current economic conditions.

2. Selected Key Macro Statistics
❑ **Newsletter on Selected Key Macro Statistics (70 series)** were released since the MCO was introduced in Malaysia via DOSM's portal and social media using the **infographic**.
❑ The compilation covered stock market indexes, currencies, Petroleum, Palm Oil, Rubber Prices and Financial related information that was presented in the **form of daily, monthly, quarterly and annual key macro statistics** that **highlight the major tendencies of the nation's socioeconomic development**.

3. DOSM Intelligence Stats No.1 to No.56/2020; Intelligence Report by State Zone; Special Bulletin
❑ DOSM also furnished information on the state and sectoral overview on the impact of pandemic COVID-19 and the Movement Control Order (MCO) to Economic Action Council and policy maker.

4. Current Statistics: COVID-19 by States in Malaysia
❑ **Special landing page** in portal was developed by DOSM as an initiative to inform the public about the status of COVID-19 outbreak in Malaysia based on official data from the Ministry of Health Malaysia and media agencies.
❑ The real-time statistics are presented using an **interactive visualisation or infographic** to help the public to grasp the information.

☐ **Special Survey Effects of Covid-19 on the Economy and Individual'- Round 1 & 2**; and

☐ **Special Survey 'Effects of Covid-19 on the Company and Business Firms'- Round 1**

✓ conducted online to determine the effects of Covid-19 pandemic to the economics in Malaysia.

✓ The survey was carried out for the period of March-May 2020.

METHODOLOY OF THE SURVEY

☐ The methodology of all surveys are without neglecting the security aspects and government recommendations in curbing of the Pandemic Covid-19.

☐ DOSM reshape the modus operandi of surveys and information collected.

☐ Surveys are conducted online and participation is voluntary based on qualitative individual views.

☐ Sampling method used is Non-Probability Sampling (Convenience Sampling)

DISCLAIMER

☐ The analysis presented are based on respondents who participated in this survey and cannot be generalised to represent the views of all Malaysians.

☐ It should be interpreted with caution to assess the impacts of Covid-19 in Malaysia and not as official statistic.

☐ However, it can be used to support in reflecting the current situation

Virtual Press Conference through FB Live & Skype
-platform for DOSM to announce the Statistics Publication based on the Advanced Release Calendar (ARC) 2020

Stats Alert
-**148 Stats Alert were released widely**aimed in educating and alerting the public to the statistics released by the Department

Newsletter
-**77 Newsletter** were issued covering various social and economic fields that illustrate the economic and social condition in the nation

Blog Writing
DOSM also encouraged officers from State Offices and Subject Matter Division (SMD) for technical **Blog Writing** including topics on the COVID-19 pandemic outbreak.

share all this **experiences and practices at the UNECE webpage on COVID-19 responses**

❑ Special Survey 'Effect of Covid-19 on the Economy and Individual' - Round 1, which was conducted online by the Department of Statistics, Malaysia for the period 23rd - 31 March 2020

❑ This survey consists of 3 modules and 21 questions

❑ A total of 168,182 respondents aged 15 years and above has participated in this survey

❑ The survey are based on respondent's feedback that includes qualitative personal opinion on **economics**, **employment** and **spending pattern**.

More than **two-third (71.4%)** of **self-employed respondents have sufficient savings for less than 1 month**.

77.2 per cent of employers and **82.7 per cent private employees have sufficient financial savings** up **to 2 months**.

Meanwhile, **78.9 per cent** of **Government Link Companies (GLC) employees** and **75.2 percent of Multinational Companies (MNC)** employees **have sufficient financial savings up to 4 months.**

%

	Less than 2 weeks	2-4 weeks	1-2 months	3-4 months	5-6 months	More than 6 months
Multinational Companies (MNC) Employee	11.7	19.5	28.1	15.9	13.7	11.0
Private Employee	27.0	31.0	24.7	8.2	5.4	3.6
Govt. Link Companies (GLC) Employee	14.2	24.7	27.9	12.1	11.0	10.2
Employer	22.5	26.7	28.0	10.5	6.9	5.5
Self-employed	43.0	28.4	18.2	5.0	3.0	2.4

❑ **69.7 per cent of those working less than 1 year and 63.2 per cent of those working between 1-3 years** reported that their **financial savings will run out in less than 1 month** respectively.

❑ 25.4 per cent of those working 4-10 years and 27.5 per cent of those working 11-20 years have sufficient savings up to 2 months.

❑ Meanwhile, **11.4 per cent** of those working **21-30 years** and **11.7 per cent of those working over 30 years** have **sufficient financial savings up to 4 months**

Savings readiness duration by employment status and service years

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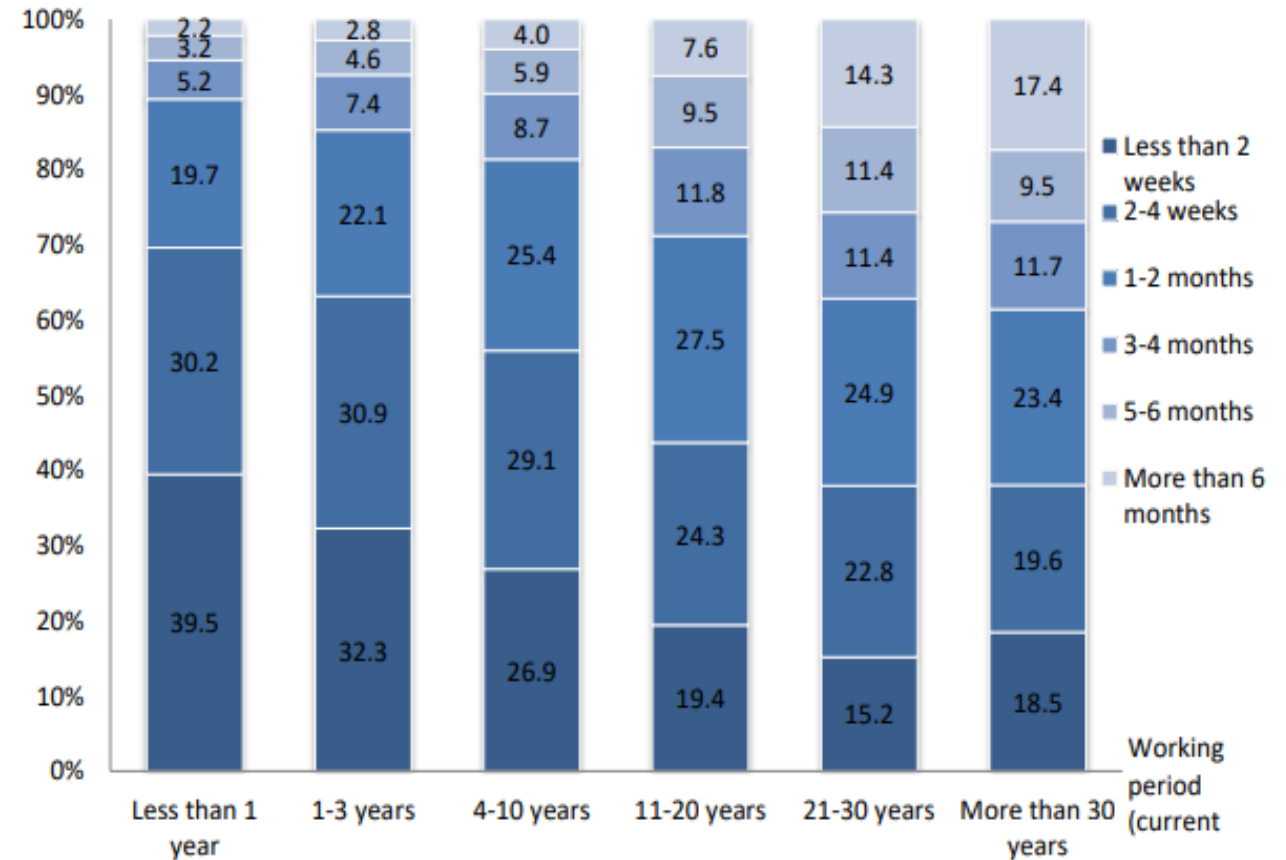
☐ **Majority of the employees** are **unprepared if the Movement Control Order is extended** except for those working in GLCs and MNCs

Overall, **84.4 per cent** of employees are **aware that the Government is providing financial assistance** for those employees who had to take unpaid leave following the COVID-19 outbreak.

Financial readiness if movement control order extended

Self-employed: Ready 18.1, Not Ready 81.9
Employer: Ready 28.7, Not Ready 71.3
Govt. Link Companies (GLC) Employee: Ready 55.0, Not Ready 45.0
Private Employee: Ready 34.9, Not Ready 65.1
Multinational Companies (MNC) Employee: Ready 63.8, Not Ready 36.2

■ Ready (%) ■ Not Ready (%)

Self-employed: No 18%, Yes 82%
Employer: No 19%, Yes 81%
Govt. Link Companies (GLC) Employee: No 12%, Yes 88%
Private Employee: No 15%, Yes 85%
Multinational Companies (MNC) Employee: No 14%, Yes 86%

Only **MNCs and GLCs employees** are **financially prepared if Total Lockdown** is enforced **with 74.9 per cent** and **73.5 per cent** respectively
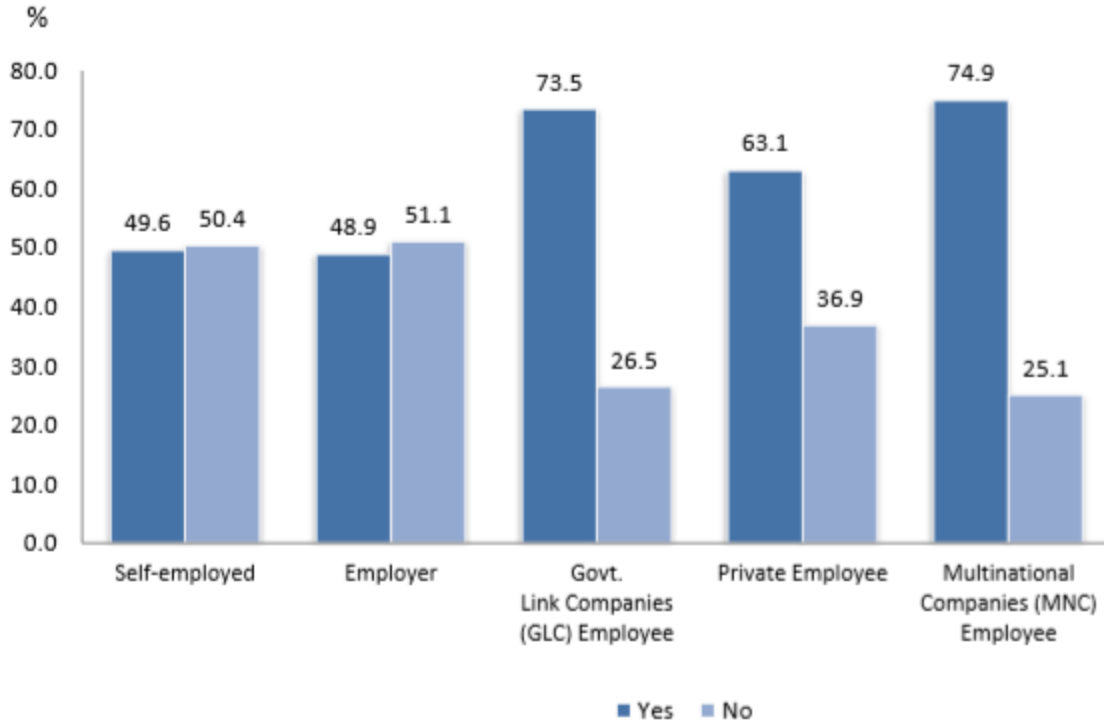
❑ **Only 6.2 per cent of the respondents were financially less affected in facing Movement Control Order (MCO)** while **52.6 per cent of respondents informed that they were affected during MCO.**

❑ Among the **states that were heavily effected during MCO** are **Sabah (66.7%), followed by Kelantan (65.5%) and Perlis (64.0%).**
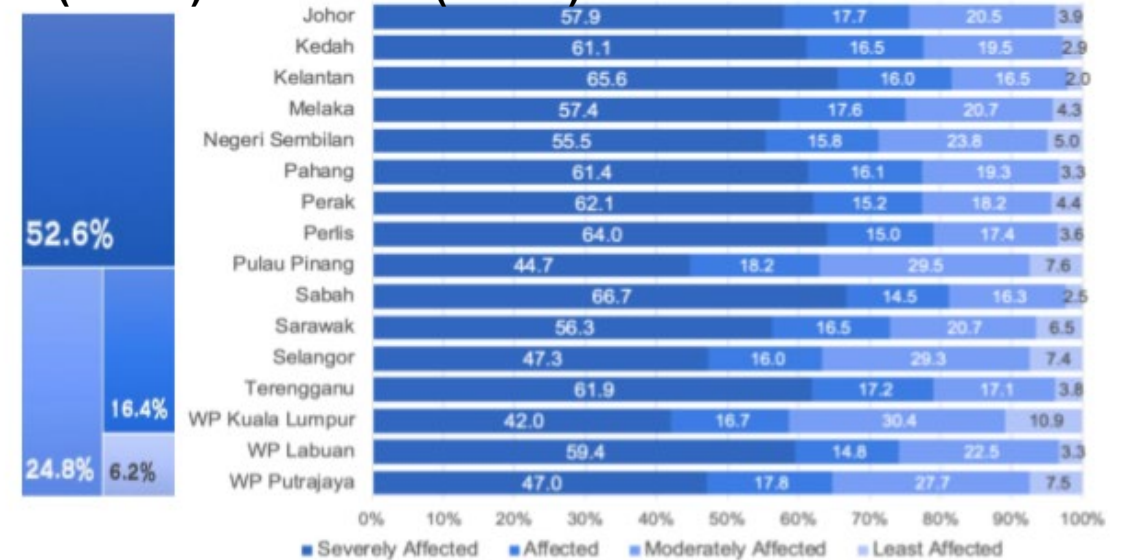
❑ Special Survey 'Effect of Covid-19 on the Economy and Individual' - Round 2, which was conducted online for the period **10 - 24 April 2020**.

❑ This survey consists of 4 modules and 36 questions.

❑ A total of 41,386 respondents aged 15 years and above has participated in this survey

❑ The analysis presented are based on respondent's feedback that includes qualitative personal opinions on economy, employment, lifestyle, and education.

Majority respondents (**96.8%**) **benefited** from the **Economic Stimulus Package Prihatin Rakyat (PRIHATIN)** announced by the Prime Minister on March 27, 2020, of which **68.2% of respondents received three forms of assistance**, 13.9% received two and 17.9% received only one
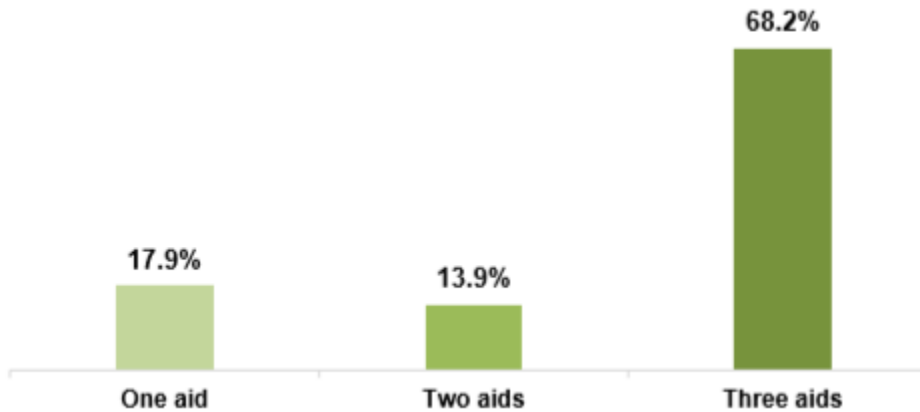
70.1 per cent of **respondents** said that the **stimulus package was effective** as it **reduced financial burden** and **9.1 per cent** was highly effective as it could **eliminate the financial burden** faced during the MCO period.
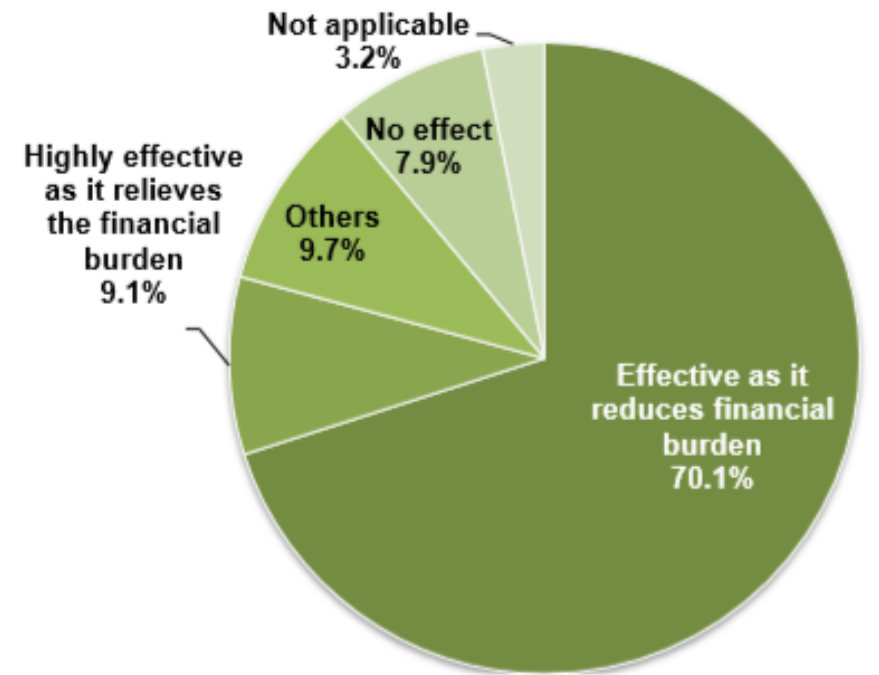
90.9% of respondents reckoned that **priority was given** to **health and life**, followed by income (4.6%) and normal life (4.5%)

96.1% of **respondents were satisfied with the services of front liners** and **government health facilities** in tackling COVID-19
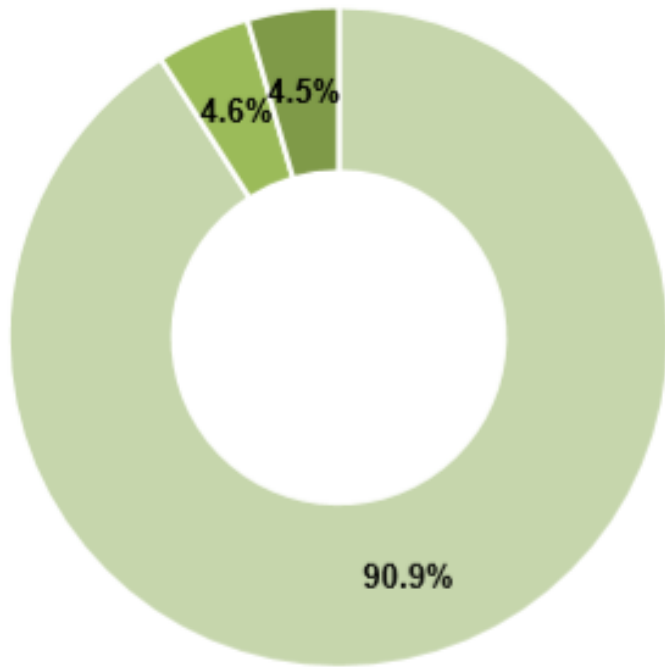

- Health & Life
- Income (jobs / businesses / enterprises)
- Return to normal life

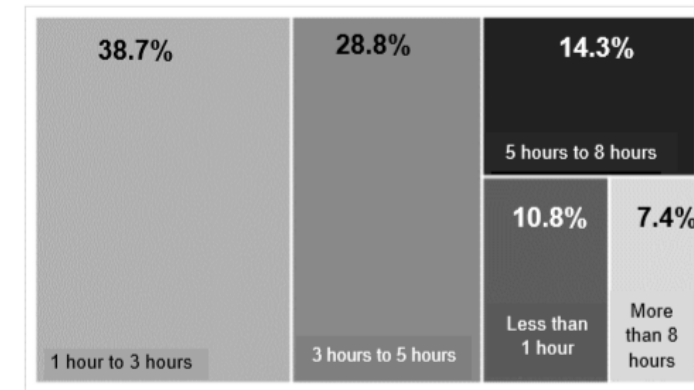*Perception on Health Care Workers (Frontliners) and Government-Provided Health Facility in Handling COVID-19*

Very dissatisfied **0.1**%
Dissatisfied **0.4**%
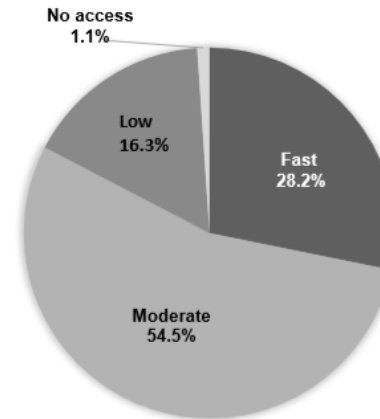Neutral **3.3**%
Satisfied **20.8**%
Very satisfied **75.3**%

The outbreak of **COVID-19 influenced the lifestyle** of **96.3%** of respondents and **92.9% of respondents** are **willing to adapt to the new norm after the MCO**.
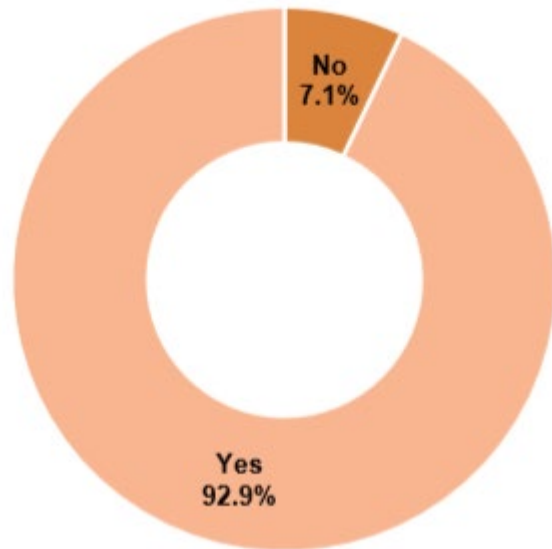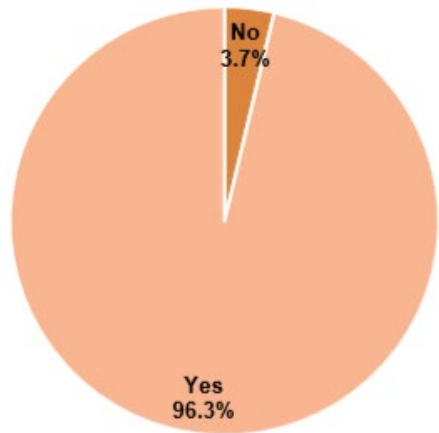
54.5% said that the level of internet access for online learning was moderate.

67.5 per cent of respondents/ school children **accessed online learning session on average 1 to 5 hours daily** during the MCO period.

46.3% of respondents said **internet access time for online** learning was **faster during the day** between 7am and 12pm.

No
3.7%

Yes
96.3%

No
7.1%

Yes
92.9%

No access
1.1%

Low
16.3%

Fast
28.2%

Moderate
54.5%

38.7%

28.8%

14.3%
5 hours to 8 hours

10.8%
Less than 1 hour

7.4%
More than 8 hours

1 hour to 3 hours

3 hours to 5 hours

❑Special Survey 'Effect of Covid-19 on the Economy and Companies/Business Firms' - Round 1, was conducted online for the period 10 April - 1 May 2020.

❑ A total of 4,094 company/business firms has participated in this survey.

❑The analysis presented are based on companies/business firm's feedback that includes qualitative opinion on the effects of COVID-19 on the economics and employment.

Micro-scale companies/ business firms were the **highest respondents** in this survey with **43.4 per cent**, followed by small-scale companies/business firms (40.4%) and medium and large-scale at 9.1 percent and 7.2 per cent respectively.
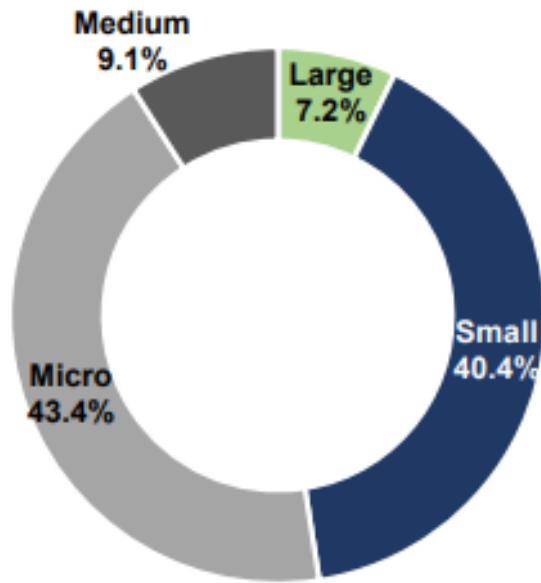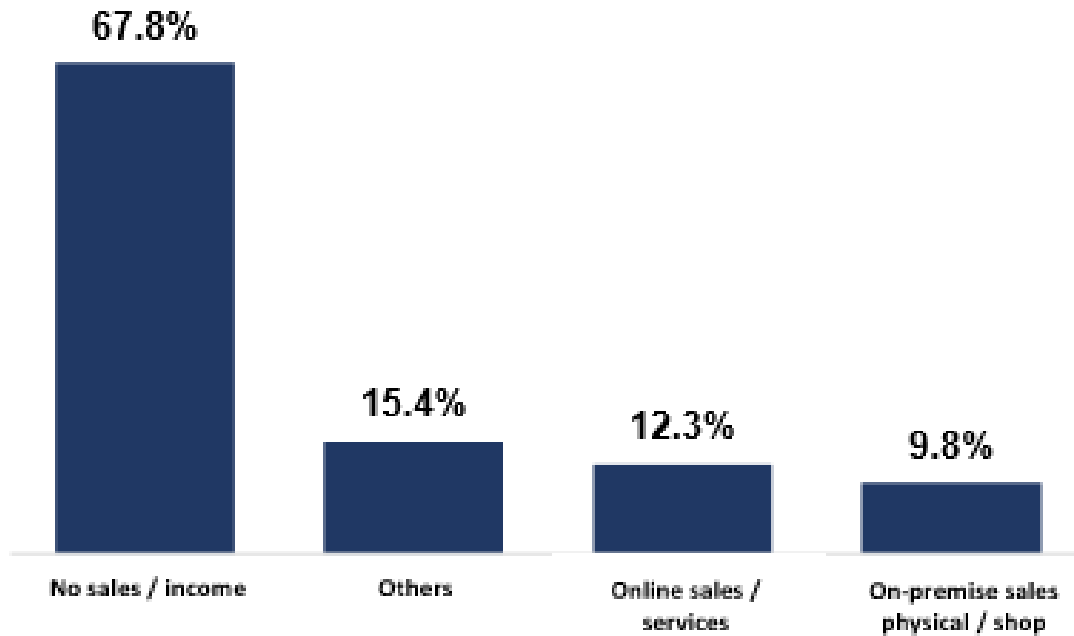
53.4 per cent of **companies / business firms** can only **survive for 1 to 2 months if they continue to provide full paid / half paid leave to employees**
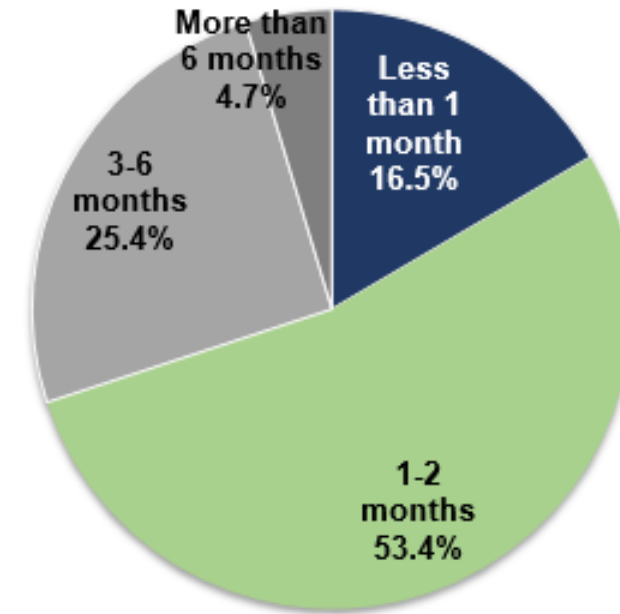
67.8 per cent of respondents stated that **no sales/ revenue during MCO**. Meanwhile, **12.3 per cent** of companies/ business firms **earn revenue through online sales/ services** and **9.8 per cent** from **on premise sales physical/ shop**.

88.8 per cent of respondents from **Private Limited Company category** had faced issues/ challenges in salary payment. Otherwise, **Sole Proprietorship** stated that the **main challenge was no customers by 70.7 per cent** followed by salary payment (62.5%).


Legal Entity	Employees payout	Lack of customers	Premise rental payment
Overall	**76.6%**	**65.5%**	**61.4%**
Sole Proprietorship	62.5%	70.7%	60.5%
Partnership	76.5%	68.8%	68.4%
Private Limited Company	88.8%	63.2%	63.5%

42.5 per cent of respondents estimated that it would **take more than 6 months for their companies/business firms to recover** and back to business as usual. Meanwhile, 28.7 per cent of respondents estimated they require 4-6 months. In contrast, **1.9 per cent** of respondents said **companies/business firms would not recover** and **expected to close down** their businesses.
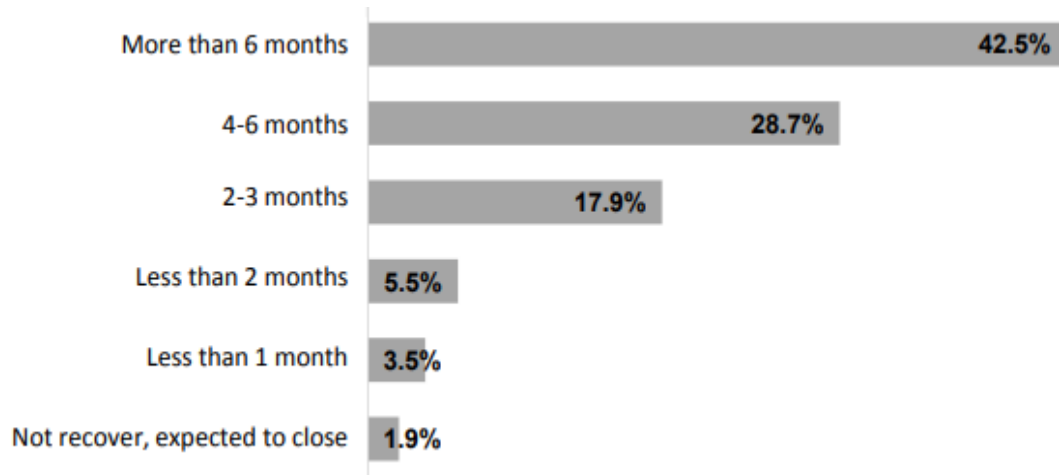
68.9 per cent of companies/ business firms' operating costs or working capital during the MCO period **were from savings**. Meanwhile, 19.8 per cent through loans and 11.3 per cent were capital injections
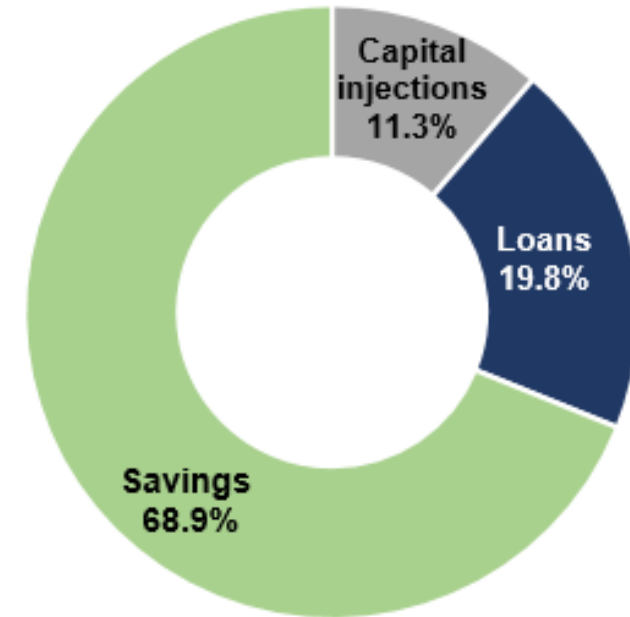
83.1 per cent of companies/ business firms **required financial assistance / subsidies from the Government**. This was followed by reduction in **company tax or any related taxes (67.0%)**. 39.1 per cent indicated they needed deferment of loan repayments and amendment of policies / related laws (30.6%).

83.1%	67.0%	39.1%	30.6%	16.4%
Financial assistance/ subsidies	Reduction in company tax or any related taxes	Deferment of load repayments	Amendment of policies / related laws	Others