

## HIGHLIGHT OF THE MONTH

### Does digitalisation drive labour market transformation?

Heizlyn Amyneina Hamzah and Henny Abigailwillyen Sinjus



Quick adaptability is essential for businesses to stay resilient and afloat during this pandemic time. COVID-19 has proven the need to adapt and utilise technology in every sector, at a rapid pace. Also, as the pandemic hits, a lot of sectors have shifted to digital means.

Whilst the digitalisation adoptions are not a sole action made by the businesses, the Malaysian government plays a pivotal role to digitalise the whole nation's economy as well.

Recently, MyDIGITAL or the Malaysia Digital Economy Blueprint has been launched to accelerate the country's digital economy development and elevate all citizens' quality of life. It serves as a digital transformation plan that empowers the business sector, developing human capital and equipping society to thrive Malaysia into a regional leader in the digital economy.

MyDIGITAL is expected to drive future demand on new job roles and sets of skills as illustrated in the figure above. Those are the top jobs and skills that every country would need by 2025, according to the World Economic Forum.

*...continue in the next page*

## INTERESTING INSIGHTS :

### Coping Labour Market with Digital Transformation

Digital transformation will trigger structural changes in the labour market.

### The Labour Market Bathtub

One can think of total employment in the economy as the water level in the bathtub, which is determined by the inflow (labour force entry) and outflow of water (labour force exit).

### Poultry-luck of a travel agency business

With skills and passions in business already in hand, Heezrad and Izzati quickly shifted their travel agency into a new business line by selling chicken.

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# INSIGHT

## Coping Labour Market with Digital Transformation

\* continue from the front page

Having that in mind, it is important to know that digitalisation transformation brings both opportunities and risks to the labour market. On one hand, it presents vast opportunities for Malaysia to create more job opportunities, especially for the high-skilled talents, as well as boosting productivity. In 2019, Department of Statistics Malaysia (DOSM) reported an increase in the employment of ICT-related industry to 1.14 million persons, encompassing manufacturing and services sectors. The figure below illustrates the trend of employment in this industry from 2005-2019. This trend will continue to rise as MyDIGITAL aims to create 500,000 job opportunities by 2025.

On the other hand, it also triggers major structural changes in the labour market that will lead to job displacement and skill mismatch. The rise in digital technologies have resulted in job displacement where machines are replacing the tasks traditionally performed by human.

Furthermore, skill mismatch can occur if workers' level of skills are less than required to perform a job adequately or to match the requirements of a job. As the displaced workers hardly utilise their previous job skills to move into new

jobs, they may occupy jobs that require lower qualification and skills.

It is also interesting to see how digital transformation works in other countries, such as India. It is estimated that the digital economy could garner over 1 trillion USD of economic value in 2025, under "Digital India" flagship programme. In fact, India is projected to create 65 million jobs in its labour market due to digital transformation although job displacement is deemed inevitable because of obsolete low-skilled jobs.

In addressing digital transformation-led labour market disruption, India – under its "Skill India" campaign – has joint efforts with other countries and large corporations on technology transfer, skills training and setting up world-class training facilities and programmes to help the workers acquire and upgrade the right skills for better future job opportunities.

In digitalising Malaysia, the government should prepare the labour market to cushion the negative impacts of digitalisation and ensure the labour market receive positive spillovers from MyDIGITAL.

In this context, there are three main

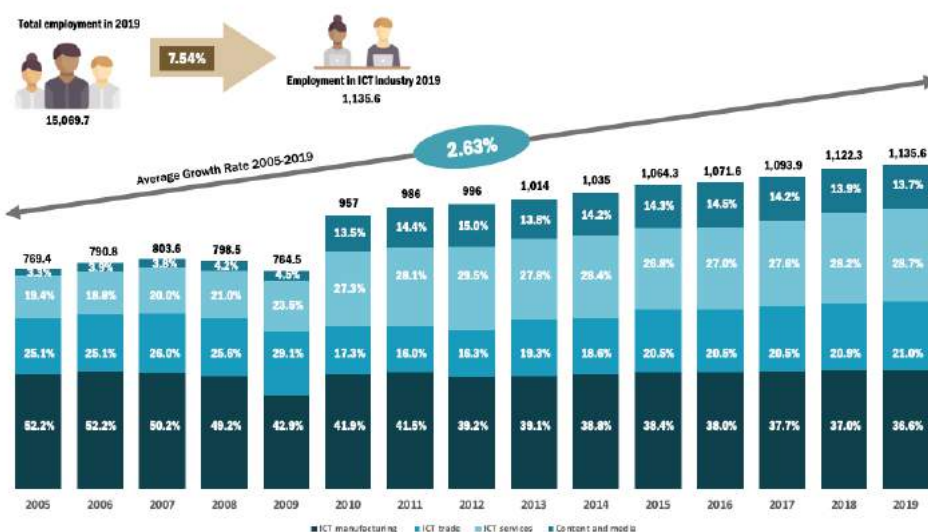
focus areas for the government to consider. First, the establishment of skills upgrading and development programs for future and existing workforces. The fourth thrust in MyDIGITAL to build agile and competent digital talent by integrating digital skills into education and reskilling current workforces is a good strategy. It is clear that the government has taken one step in preparing on digital transformation.

Second, strengthening the labour market policies to facilitate lifelong employability. These policies should consist of continuous professional job counselling for self-employed in gig economy platform and uphold the transitions from non-formal to formal economy transitions.

Third, in preparing the labour market for digital transformation, the government should initiate continuous social dialogue with the industry players. The social dialogue is crucial in supporting the new culture of life-long learning, financing further training and adopting new technology to enhance workforce's productivity.

In the midst of these trying times, digitalisation forms a great help in fueling economic growth and facilitating employment expansion. Whilst Malaysia is still adjusting to the new normal, it could be said that the government is acting quickly to adapt with new plans to ensure that no one is left out from reaping the benefits of the Industrial Revolution 4.0.

Employment in ICT Industry ('000)



Source: Department of Statistics Malaysia (DOSM) (Various years)

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# PERSPECTIVES

provides a summary of research note by our economist

## The Labour Market Bathtub

Dr Chakrin Utit and Assoc. Prof. Dr. Mohd Yusof Saari

The labour market is a central component in an economy where the supply and demand for jobs meet, with the labour providing their services to the employers in exchange for compensation. At the macro level, the supply and demand of labour are influenced by domestic and international market dynamics, as well as factors such as foreign labour and immigration.

Nevertheless, these factors are only hold true when the economy grows in its natural path. With the emergence of unprecedented crisis such as the COVID-19 pandemic, the interaction between the supply- and demand-side of the labour market are more influenced by the implementation of protective measures to contain the spread of the virus.

To simplify the understanding of the labour market ecosystem this article introduces the concept of the labour market “bathtub” (see Figure 1).

Based on the bathtub concept, one can think of total employment in the economy as the water level in the bathtub, which is determined by the water inflow from the tap (school leavers and graduates), inflow from outside the tap (foreign workers), outflow due to outside bucket (domestic and foreign workers) and labour market exit (e.g. pensioners).

An ideal situation, the water level in the tub should be maintained at the normal rate because the size and capacity of the tub is limited. This is an important message that can be derived from the

bathtub model is that the economy must be able to keep the water level or the labour force at the steady-state. Ideally, it is a situation where the labour force is the level that would prevail in equilibrium if the current entry and exit rates stayed unchanged over time.

Other things being equal, the more inflow of employment in the labour market, that is, the higher the entry rate, then the bigger the size of the labour force and this will increase the water level in the tub. When this happens, there are several consequences:

- The tub is likely to crack and damage unless the economic growth and job creation are higher and inflow of employment, which is translated into a bigger size and capacity of the tub.
- For the case of stagnant economic growth and job creation, (the size and capacity of the tub could not be expanded), slowing water inflow from the tap and reducing the inflow of water from outside the tap (foreign workers) can be considered to maintain the capacity of the tub. Slowing the water inflow (new entrants) can be performed in several ways such as providing training after graduation and extending the graduation periods.

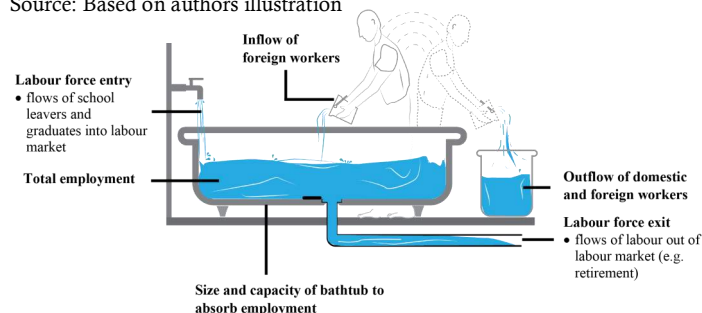
The bathtub model emphasises a proper management of the labour market ecosystem. Here, we state three potential implications for the labour market drawn from the bathtub model.

First, overflowing of the water level. The overflowing issue must be avoided at all costs as it would indicate the inefficiency of; (i) the entry system that is caused by the growing number of graduates and overemployment of foreign labour, and (ii) the draining system that may be caused by the reluctance of labour who exceed the retirement age to leave the labour market due to the lack of retirement income. Second, leakages of the water level. The issue of leakages is linked to the human capital flight which sees high-skilled labour emigrating due to the inability of the economy to produce sufficient high-skilled positions. Third, the drying up of the water level. This issue is a common issue that is expected in countries with aging population that sees higher exit rates than entry.

Deciding at which level of water is ideal demands a comprehensive Labour Market Information (LMI). The LMI is of the utmost importance in managing the labour market as the market is not only comprised of domestic labour but also foreign labour which may include undocumented individuals. Unlike domestic labour, the entry and exit of foreign labour may not be influenced by the natural supply and demand forces that determined the shortages and surpluses of labour in the economy. Foreign labour, particularly undocumented labour is mostly employed due to the fact that these people are exploited for their lower salary and wages expectation.

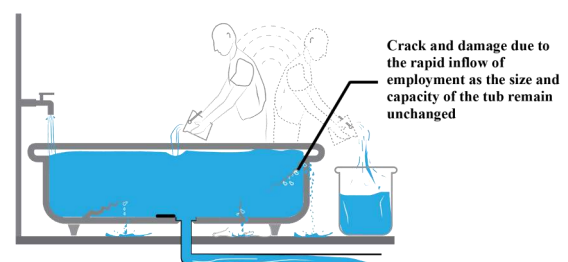
**Figure 1: The labour market bathtub – ideal or equilibrium condition**

Source: Based on authors illustration



**Figure 2: The labour market bathtub – non-ideal or disequilibrium condition**

Source: Based on authors illustration



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# UNTOLD STORY

*shares the reality of labours that inspired and motivated others to change*

## Poultry-luck of a travel agency business

Nur Azreen Mokhyi and Mohd Alzaieri Abdul



Proud of new business adventure: Heezrad and Izzati (both at the centre) with their loyal employees in front of Heezrad Ayam in Salak Tinggi.

The immediate and dreadful impacts of COVID-19 pandemic to the economy have left many businesses struggling for their survival. Among others, the most affected businesses are those that are essentially driven by human-based services such as tourism agency.

Ezigo Holiday Sdn. Bhd., a travel agency owned by Nik Mohd Heezrad (Heezrad, 34) and his wife Nur Izzati Md Zuldin (Izzati, 32) is not spared from the effects of COVID-19.

The married couple started their travel business in 2014 and have employed 11 workers. As the agency grows over time, they manage to generate up to five figures of take home pay a month. However, due to cross border travel restriction imposition to contain the spread of COVID-19, the company has no other options than temporarily suspended their business operation.

Such circumstance did not stop Heezrad and his wife from giving up and finding other opportunities. With skills and passions in business already in hand, they quickly shifted their travel agency into a new business line by selling chicken.

The poultry-selling small enterprise operates in Salak Tinggi, Sepang was not started out of nothing. It began from door-to-door food delivery service before Heezrad was triggered to venture into chicken retailing business knowing that fresh chickens are on high demand.

Heezrad and his team quickly learn tips and tricks of chicken selling business from a bunch of helpful experienced retailers and invested a decent amount to acquire necessary assets.

Apart from making a living for this couple small family, another important factor that makes them felt thrill starting their new chicken retail business is because of the loyalty of their 11 travel agency workers who are willing and giving full support to join them in the new business adventure under Heezrad Ayam Sdn. Bhd, also known as Heezrad Ayam.

Now, Heezrad Ayam not only sells chicken, but also supplies food and vegetables to customers encompassing retailers, wholesalers, and canteen operators at factories.

Although the travel agency business is more lucrative, Heezrad and his wife are grateful that they have the opportunities to find alternative source of income and learn new skills and experiences.

Heezrad Ayam is not just a short run solution because they are planning to expand it even further. Heezrad aims to open a factory to support its business operation and is now waiting for business loan approval. Nonetheless, Heezrad and his wife are still hoping their globetrotting business will re-operate soon and become larger than ever before once the pandemic crisis is over.



Travel memories: Izzati (first from left) and Ezigo Holiday's tourist group during their visit to Milan, Italy.

# EDITOR SELECTION

*finding from research paper that is relevant for labour market*

## Machin-omics:

# Could automation overtake human jobs?

Muhammad Khalid Ahmad Kamal and Dr Muhammad Daaniyall Abd Rahman

The emergence of fourth industrial revolution (IR4.0) 'wave' has been sensationalised describing automation will take over human jobs in the workplace. Such automations, mainly operated by robots or algorithms, are seen to displace millions of jobs in the labour market across the globe, which eventually arousing general public outcry.

Although this reality becomes bad news for most part of the world, but automation is somehow warmly welcomed in Japan, one of the leading countries in robot employment.

A study in Japan has been published recently examining the impact of the introduction of robots to equilibrium labor demand in the entire Japanese economy.

It is generally known that Japanese economy suffers from low fertility rates, increase in number of elderly and shrinking population growth, which then lead to a chronic labour shortage. Thus, employing robot is more about economic survival rather than a threat to human jobs.

The study reveals that use of robot in economic activities – stretching from textile to automobiles industries – is not a quite recent one. Surprisingly, it had started as early as 1979, the same year when Malaysia was about to conceive its first national car concept. In 2011, it was estimated that there were about 14 robots per 1000 workers in Japan compared to 1.4 and 2.3 in the USA and Europe, respectively.

Furthermore, the study strongly asserts that we may be all wrong by viewing adopting robot to replace human jobs can lead to severe labour market failure. While it is indisputable to anticipate human-to-robot displacement effects, the introduction of robots would otherwise give positive impacts on productivity.

**“While it is indisputable to anticipate human-to-robot displacement effects, the introduction of robots would otherwise give positive impacts on productivity ,”**

The productivity effect is found to be positive for Japanese vulnerable workers such as women, part-time workers, high-school graduates, and the aged. Moreover, employing robot could help lowering operation costs, raising average industry wage, improving labour demand, as well as sustaining global market share of Japanese corporations.

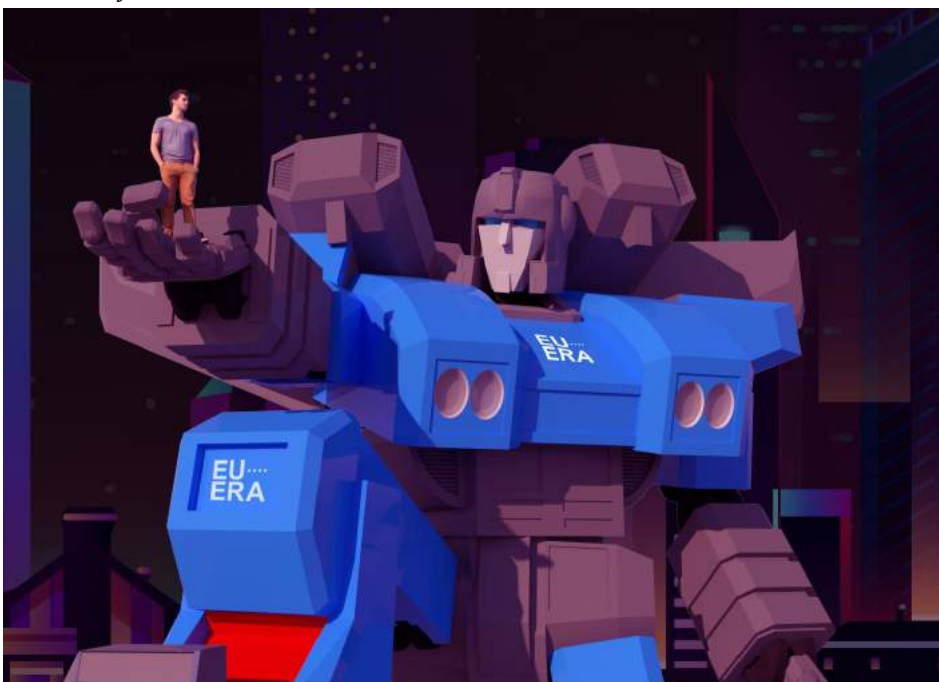
For Malaysia, a lot can be learnt from Japanese robot wonders. First, the use of robot is somehow feasible at any productive sectors. Robot employment remains a challenge as it may incur massive public and private investments, tethering incentives to facilitate this. To note, Japan was expected to reap around \$21 billion from robot market in 2020, reflecting the silver lining for economic opportunities that always exist.

Second, like Japan, Malaysia demographics is also moving towards aging population. At the same time, we suffer from labour market structural issues that remain hard-to-break. Therefore, turning into robot employment shall be scrutinised in depth to understand the impacts for such robot-human replacement at industrial level. Being a labour-intensive economy, it complicates the way we see these impacts, especially with high dependency on foreign workers.

Furthermore, with the current pandemic crisis that restricts human movement and enacts strict physical-distancing protocols, the needs for robots become crucial to contain virus contagions. While it remains ambiguous of such event would not recur in the future, the adoption of “machine economy” shall be seriously taken into consideration for the sake of economic safeguard.

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# ACTIVITIES

## EU-ERA IN MEDIA

### Electronic Media

1. Hari Wilayah: Taburan industri tidak sekata cipta jurang pendapatan – Astro Awani (1 February 2021)
2. Hari Wilayah: Perkasa segmen sewaan, kurangkan monopoli pemaju – Astro Awani (1 February 2021)
3. Hari Wilayah 2021: Tumpuan pembangunan Wilayah Labuan – Astro Awani (1 February 2021)
4. Pandemik tingkat pengangguran graduan – Berita Harian (2 February 2021)
5. Perketat SOP: Dilema ekonomi berintensifkan buruh – Astro Awani (2 February 2021)
6. Perketat SOP: Tiada Istilah tutup ekonomi – Astro Awani (3 February 2021)
7. COVID-19 | Kerajaan benarkan sektor ekonomi terus beroperasi – Astro Awani (4 February 2021)
8. Termination of Wage Subsidy Programme will not affect unemployment – The Malaysian Reserve (6 February 2021)
9. Ramai majikan masih mahu mengekalkan pekerja – Berita Harian (6 February 2021)
10. Penamatan Program Subsidi Upah tidak akan tingkatkan kadar pengangguran – Utusan Malaysia (6 February 2021)
11. Penamatan PSU tidak naikkan kadar pengangguran – Harian Metro (6 February 2021)
12. Penamatan PSU dijangka tidak tingkatkan kadar pemberhentian kerja, pengangguran – Harian Metro (6 February 2021)
13. Penamatan PSU tidak tingkatkan kadar pemberhentian kerja – Sinar Harian (6 February 2021)
14. Penamatan Program Subsidi Upah tidak wujudkan pengangguran – Astro Awani (6 February 2021)
15. Wage subsidy programme termination will not increase unemployment rate – Selangor Journal (6 February 2021)
16. Sosco says Wage Subsidy Programme termination will not increase unemployment rate – Malay Mail (6 February 2021)
17. Wage Subsidy Programme termination will not increase unemployment rate – Bernama (6 February 2021)
18. Survey says termination of wage subsidies won't increase joblessness – The Malaysian Insight (6 February 2021)
19. Social Insurance: Survey shows that termination of subsidies did not result in an increase in unemployment – Sin Chew Daily (6 February 2021)
20. End of Wage Subsidy Programme won't lead to mass unemployment – The Vibes.com (6 February 2021)
21. Wage subsidy programme termination will not increase unemployment rate – Astro Awani (6 February 2021)
22. Penamatan PSU dijangka tidak tingkat kadar pemberhentian kerja – Utusan Borneo Online (6 February 2021)
23. PSU tamat dijangka tidak tingkat pemberhentian kerja – Harakah Online (6 February 2021)
24. Penamatan PSU tidak sebabkan masalah pemberhentian kerja – Kosmo (6 February 2021)
25. Kadar pengangguran dijangka menurun menjelang suku pertama 2021 – Astro Awani (9 February 2021)
26. Niaga AWANI: Apa akan jadi selepas PSU tamat? – Astro Awani (11 February 2021)
27. Pembukaan semula aktiviti perniagaan mampu pulih kedudukan ekonomi negara – Astro Awani (11 February 2021)
28. Mansuh syarat i-Sinar: Ada kumpulan akan ambil kesempatan – Berita Harian (12 February 2021)

## UPCOMING EVENTS

### Quantitative Workshop 2021

1. Understanding the Labour Market Ecosystem (7-8 April 2021)
2. Labour Market Impact Analysis (19-20 May 2021)
3. Data Envelopment Analysis (27 May 2021)
4. Labour Market Leading Indicators (2–3 June 2021)
5. Econometrics Workshop Series: Understanding Basic Econometric Principles (17 June 2021)
6. EXCEL for Data Analytics (17 June 2021)
7. Economic Workshop Series: Dealing with Non-Stationary Data (15 September 2021)
8. Economic Workshop Series: Forecasting Labour Market Indicators Using ARIMA and Box-Jenkins Approaches (16 December 2021)
9. Modeling and Estimating Using ARDL Approach (23 December 2021)

### Seminar/Conference 2021

1. 1st National Conference on Labour Market Analysis (INFORMAL) – New Data and New Approaches (17 November 2021)
2. 28th International Input-Output Conference and 10th Edition of the International School of IO Analysis

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## RECENT PUBLICATIONS

1. Malaysia Budget 2021: Labor Market Perspectives
2. Quarterly Labour Market Perspectives: Growth and Labour Market Recovery
3. The Day After Tomorrow: Estimating the Impacts of Ending Temporary Wage Subsidy Programme

\*For further reading, please visit <https://eiscentre.perkeso.gov.my/reports-articles/>

## Opportunities

### Author's Contribution

Our centre publishes a bulletin on monthly basis. We would like to invite interested individuals, experts and researchers to contribute in our bulletin. Please email us at [euera.centre@gmail.com](mailto:euera.centre@gmail.com) for further details.



Career Fair organised by SOCSO



EU-ERA 6-month milestones meeting

# SPOTLIGHT

## Loss of Employment and Job Placements



### EMPLOYMENT INSURANCE SYSTEM LOSS OF EMPLOYMENT & JOB PLACEMENTS

4<sup>th</sup> WEEK OF FEBRUARY 2021

#### SNAPSHOTS

Reason : Closure of Business  
Percentage : 17%

**14,438** Loss of Employment

**25,648** Job Placement

Downsizing was the main cause of retrenchments.

#### AGE

AGE	30 - 34	20 - 24
	<b>2,671</b> 19%	<b>6,057</b> 24%

30 to 34-year-olds were most likely to be retrenched, while slightly younger 25 to 29-year-olds were most likely to be hired.

Men		Women	
57%	43%	55%	45%

#### GENDER

#### OCCUPATION

Occupation	Loss of Employment	Job Placement
Professionals	4,460 (31%)	6,231 (24%)
Technicians & Associate Professionals	2,815 (20%)	4,565 (18%)
Managers	2,403 (17%)	3,741 (14%)
Service and Sales Workers	-	3,741 (14%)

Professionals were most likely to be retrenched (31%) and rehired (24%).

\*Please note that many placements remain unclassified and were not factored into the analysis.

#### WAGE LEVELS

Workers earning between RM1,000 - RM1,499 were most likely to be retrenched (14%), while those earning slightly more (RM1,500 - 1,999) were most likely to be hired (28%).



\*Please note that many placements remain unclassified and were not factored into the analysis.

Legend : ■ Loss of Employment | ■ Job Placement

#### INDUSTRY



Most retrenchments and placements occurred in the manufacturing industry.

\*Please note that many placements remain unclassified and were not factored into the analysis.

#### STATE

Selangor	<b>5,183</b>	Kuala Lumpur	<b>6,489</b>
Kuala Lumpur	<b>4,150</b>	Selangor	<b>6,198</b>

Retrenchments (36%) and were concentrated in Selangor, while most placements (25%) occurred in Kuala Lumpur.

#### Technical note:

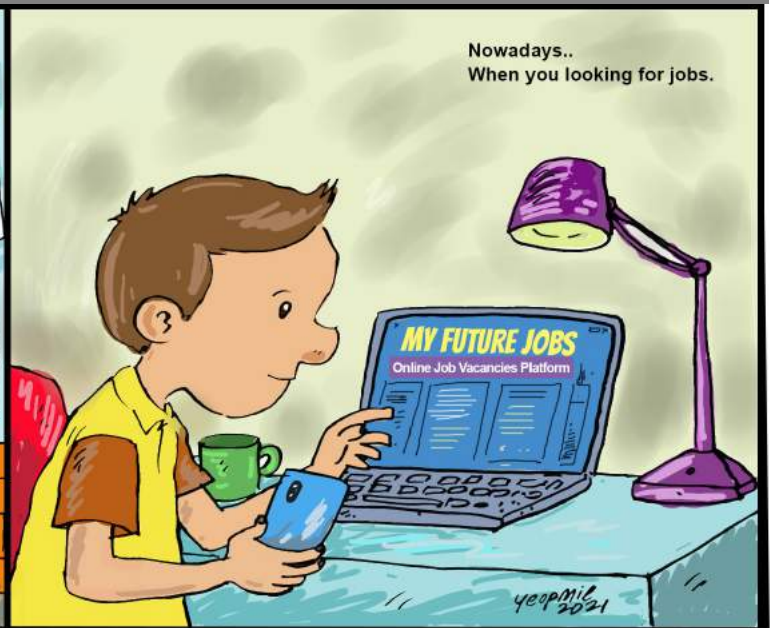
- LOE figures are based on ES unemployment benefit claims
- Placement figures refer to previously unemployed individuals who have successfully returned to work
- All figures are cumulative (from January 2021 onwards)
- Subject to changes as the data has only undergone preliminary cleansing

For more information : [eiscentre.perkeso.gov.my](http://eiscentre.perkeso.gov.my)

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*Yeopmie*



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EIS-UPMCS Centre for Future Labour Market Studies (EU-ERA) is a collaborative research laboratory between the Employment Insurance System (EIS) at Social Security Organisation (SOCSO) and Universiti Putra Malaysia Consultancy & Services (UPMCS).


The mission of the EU-ERA is to blend the scientific and empirical approaches into the current policy development which cover end-to-end labour market policies ranging from the labour supply to the labour demand issues. In meeting the scopes, the centre focuses on forecasting and modelling; applied policy analysis; and capacity building and structured training programmes for labour market assessment tools.

Our core researchers have strong expertise in quantitative economic tools which include econometrics, input-output (IO), social accounting matrix (SAM), computable general equilibrium (CGE), system dynamics (SD) and data envelopment analysis (DEA). These quantitative tools are not only vital for labour policy assessments but also are able to address the inter-linkages between the labour market and other developmental issues such as investment, trade, income distribution, poverty, social policy, demography and aging, and migration.

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