

Development of Labour Market Competitiveness Index for Proactive Policy Monitoring



Summary

- ◆ The Labour Market Competitiveness Index (LMCI) empowers policymakers with reliable and up-to-date information, enabling them to identify gaps, align policies with labour market needs, and support informed decision-making. It provides a snapshot view of the labour market dynamics by integrating three core pillars namely labour supply, labour demand and labour market efficiency.
- ◆ The LMCI shows that Malaysia's labour market exhibited good performance growth between 2017 and 2019, prior to the pandemic-led crisis. However, the trend reversed after the pandemic hit the economy in 2020, resulting in disruption to the country's labour market.
- ◆ The decline in the LMCI is mainly driven by the Job Market Efficiency pillar. This highlights the need for policymakers to focus on stimulating the job market efficiency and addressing factors affecting it to enhance the overall competitiveness.
- ◆ There are several key applications of LMCI to be considered which include integrating the LMCI with other macroeconomic models and labour market information infrastructure, and incorporating additional indicators for a more comprehensive labour market health metrics.

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Stretching labour market health metrics

Understanding the intricacies of the labour market ecosystem can present complex challenges due to data fragmentation and the absence of an integrated system. For instance, the Department of Statistics Malaysia publishes official data on the unemployment rate, however, education-related information, such as the number of graduates, is typically reported by the Ministry of Education. As a result, policymakers lack a comprehensive view of the overall health of the labour market, making it difficult to grasp the holistic picture.

In this regard, capturing a comprehensive checklist for measuring the competitive labour market is pivotal. This is because relying on a limited number of labour market indicators can sometimes lead to an incomplete or misleading assessment of labour market competitiveness. For example, a low unemployment rate may indicate a competitive labour market, but it may also conceal other issues related to wages, employment structure, or job insecurity.

Knowing the complexity of the labour market and to ensure a more comprehensive evaluation of labour market competitiveness, it is important to include a broader range of labour market indicators that reflect different dimensions of labour market as indicated in the framework discussed above. This may include indicators such as the labour mobility, the prevalence of non-standard work arrangements (such as temporary or part-time work), the availability of training and skill development opportunities, and the level of social protection and benefits available to workers.

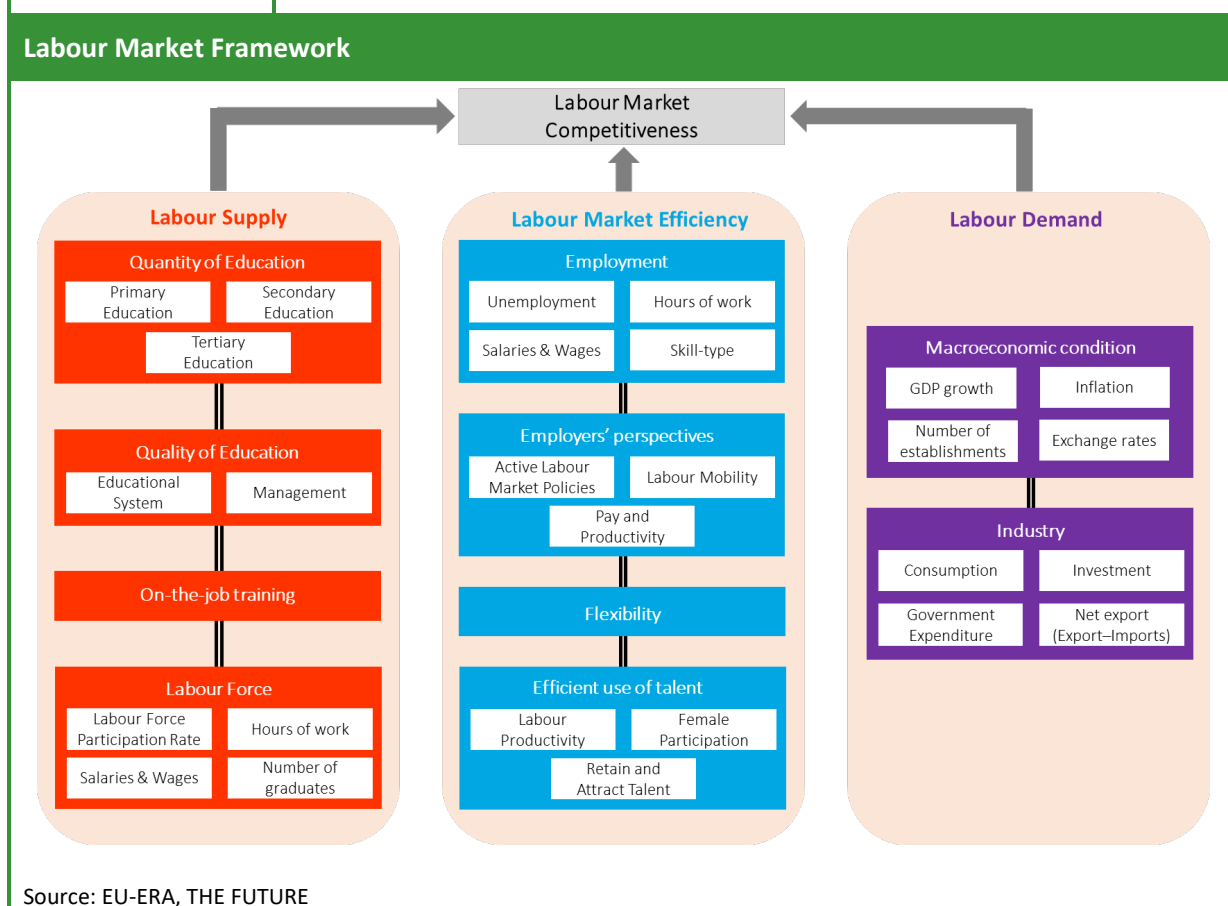
Addressing this issue necessitates the development of a unified index that can accurately demonstrate the true state of the current labour market. An illustrative example of such an index is the Malaysian Economic Indicators – Leading, Coincident, and Lagging Indexes, published by the Department of Statistics Malaysia. This index plays a crucial role in analysing Malaysia's overall economic performance. Therefore, developing a similar Labour Market Competitiveness Index (LMCI) holds immense potential in assessing the labour market's overall performance.

This policy brief aims to establish LMCI for Malaysia. A set of quantitative and qualitative indicators are identified to gauge a broad-based evaluation of the labour market condition, followed by computing an aggregated index for the LMCI. By capturing a comprehensive checklist of labour market indicators, policymakers and analysts can gain a more nuanced understanding of labour market dynamics and develop more effective strategies to promote job creation, decent work, and inclusive economic growth.

Grasping the mechanics of labour market frameworks

Understanding the dynamics of the labour market framework between the supply and demand sides of the economy is essential for sound labour market planning. In economics, the labour market involves a complex system that connects three core blocks namely supply-side, demand-side and job market. The inter-connections between these three blocks are displayed in **Figure 1**.

Figure 1



Specifically, the labour supply block is concerned with the characteristics of the available labour force, including its size, demographics, and educational attainment, among others. The labour demand block, on the other hand, focuses on the factors that determine the demand for labour, which is mainly driven by the growth in gross domestic product and other macroeconomic indicators. The bridge between supply and demand is determined by the efficiency of the job market. Flexibility, employer’s perspective, and employment structures are among the key determinants of the supply-demand clearance.

It is worth noting that the framework is not limited to the determination of the quantitative aspect of the labour market, but also determined by the quality of the labour market itself. Indeed, there are other factors that can influence the labour market, including labour market policies, social norms, and cultural attitudes towards work.

Understanding these additional factors is crucial for policymakers and businesses looking to develop effective labour market strategies.

Developing a labour market competitiveness index based on the labour market framework

Learning from other countries’ experiences alongside the usefulness of establishing the labour market competitiveness index, this section presents our first attempt to establish a Labour Market Competitiveness Index (LMCI) for Malaysia. The LMCI framework is developed by taking into account the three pillars in the labour market framework (see **Figure 1**) and detailing them into relevant sub-pillars (see **Figure 2**).

The computation of the LMCI is based on aggregated scores ranging from 0 for the worst performance level to 100 for the frontier performance level. Each pillar score is

computed by taking the average of the scores of its sub-pillars, and finally the overall LMCI score is the average scores of the three pillars.

The total LMCI includes 45 labour market-related indicators distributed across the three pillars. The data used for each pillar are sourced from international organizations and

governmental organizations, mainly derived from the Global Competitiveness Report, World Development Indicators, and the Department of Statistics Malaysia. Therefore, the LMCI is a composite indicator that can be used as a benchmark for labour market competitiveness in Malaysia.

Figure 2

LMCI pillars and sub-pillars



Source: EU-ERA, THE FUTURE

Insights on the LMCI performance

LMCI reported in this policy brief is computed for the periods 2017-2021, where the stipulated period is chosen based on data availability for most of the indicators. The main findings of the computed LMCI score are deliberated according to the overall score and performance of each pillar.

The Overall Performance

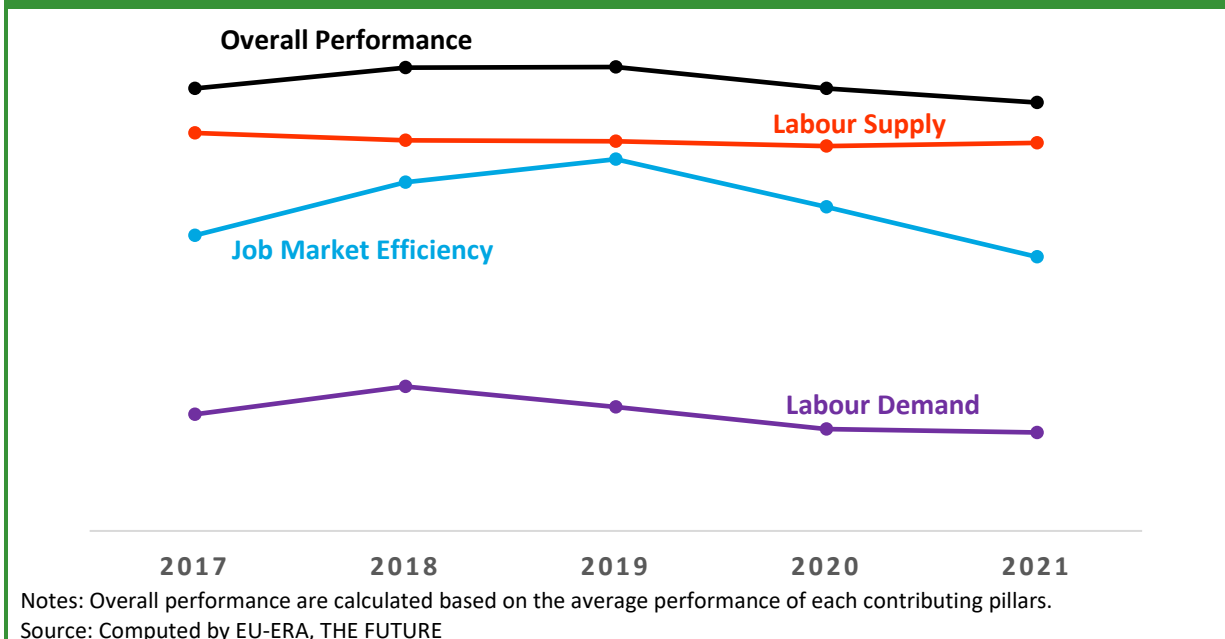
The LMCI performance scores from 60 to 66 over the periods of 2017-2021 as shown in **Figure 3**. The highest score of 65.96 was recorded in 2019, while the lowest score was registered in 2021. Overall, Malaysia's labour market exhibited good performance growth between 2017 and 2019, prior to the pandemic-led crisis, as indicated by the LMCI

scores. However, the trend reversed after the pandemic hit the economy in 2020, resulting in disruption to the country's labour market. Despite the recovery period in 2021, the labour market rebound has been relatively weak.

The Labour Supply Pillar emerges as the leading component contributing the overall LMCI score, followed by the Labour Market Efficiency and the Labour Demand Pillars. Over the period from 2017 to 2021, the Labour Supply Pillar consistently achieved an average score above 76.9, indicating a robust performance. Similarly, the Labour Market Efficiency Pillar exhibited a parallel performance trend, aligning with the overall LMCI results. However, the Labour Demand Pillar showed a rather worrying performance where the highest score was recorded in 2018 with a score of 47.6 and showed a downward trend for the following years.

Figure 3

Overall Performance of LMCI, 2017-2021



Labour Supply Pillar

The Labour Supply Pillar evaluates the quantity and quality of the available labour force in a country. It examines factors such as the size of the working-age population, labour force participation rates, educational attainment levels, and skills development initiatives. This pillar assesses the country's ability to provide a skilled and productive workforce to meet the demands of the labour market. For example, producing a highly skilled and productive workforce attracts foreign investment, fosters innovation, and fuels economic growth.

The overall score of this pillar shows a decreasing trend within the past five-year periods from 78.53 in 2017 to 77.3 in 2021 (see **Table 1**). It means that the overall labour supply pillar is a bit weak throughout the periods. What does it mean? It implies that Malaysia needs stronger and more competitive workforce that can attract foreign investment,

boost productivity and innovation, and drive economic growth. Moreover, this score also shows that Malaysia should implement policies and programs aimed at improving the education and skills of its workforce, creating favourable working conditions, and providing opportunities for workers to upskill and reskill as needed.

The quantity of education sub-pillars shows an increasing trend in the score from 2020 to 2021, suggesting an improvement to produce a sufficient workforce with the necessary education level. As compared to the overall LMCI score, the quality of education pillar has performed admirably, contributing significantly to labour market competitiveness relevant skills, knowledge, and decent facilities. On-the-job training has maintained a relatively higher score as compared to other sub-pillar of the labour supply indicating its usefulness in ensuring the readiness of the workforces to enter the labour market.

Table 1
Labour Supply Pillar Score, 2017-2021

Indicators		Year				
		2017	2018	2019	2020	2021
A. Labour Supply Pillar		78.5	77.6	77.5	76.9	77.3
A1	Quantity of education	78.7	76.5	76.1	74.2	75.6
A1.01	Total graduates on primary education	100.0	96.3	90.5	85.5	85.5
A1.02	Total graduates on secondary education	100.0	83.0	91.7	85.3	94.9
A1.03	Total graduates on tertiary education	91.3	95.4	89.3	87.8	87.8
A1.04	Government expenditure on primary education	59.8	62.1	62.1	62.1	62.1
A1.05	Government expenditure on secondary education	100.0	95.9	95.9	95.9	95.9
A1.06	Government expenditure on tertiary education	n.a.	3.0	3.0	3.0	3.0
A1.07	Number of graduates	100.0	100.0	100.0	100.0	100.0
A2	Quality of education	76.0	75.4	75.4	75.4	75.4
A2.01	Quality of the educational system	79.5	77.2	77.2	77.2	77.2
A2.02	Quality of math and science education	69.9	72.3	72.3	72.3	72.3

A2.03	Quality of management schools	71.4	71.4	71.4	71.4	71.4
A2.04	Internet access in schools	83.0	80.8	80.8	80.8	80.8
A3	On-the-job training	80.9	80.9	80.9	80.9	80.9
A3.01	Local availability of specialised research and training services	74.8	74.8	74.8	74.8	74.8
A3.02	Extent of staff training	87.0	87.0	87.0	87.0	87.0

Note: n.a. denotes the data are not available.

Source: Computed by EU-ERA, THE FUTURE

Labour Market Efficiency Pillar

The Labour Market Efficiency Pillar focuses on the efficiency and flexibility of the labour market. It examines factors such as the ease of hiring and firing employees, the flexibility of work arrangements, wage flexibility, and the efficiency of labour market regulations. This pillar evaluates the extent to which labour market regulations and practices facilitate efficient allocation of resources, adaptability to changing economic conditions, and productivity growth. Malaysia's labour market efficiency score has declined to 63.3 in 2021 from 69.5 in 2020 (see **Table 2**). There are three sub-pillar that affect the decline in labour market efficiency such as the quantity of labour, flexibility, and efficient use of talent.

Over the past five years, Malaysia has witnessed an increase in the quantity of labour score, rising from 49.8 in 2017 to 54.2 in 2021. This growth reflects a larger workforce participating in the labour market, potentially reducing labour market friction. However, the score on the flexibility sub-pillar dropped significantly from 2020 to 2021 compared to the previous year, indicating a lack of flexibility, particularly due to mismatches. Similarly, while the efficient use of the talent sub-pillar initially showed improvement, the score has recently declined from 2019 to 2021. This suggests that Malaysia is not fully optimizing its human capital, which potentially could lead to lower productivity levels.

Table 2
Labour Market Efficiency Pillar Score, 2017-2021

Indicators	Year				
	2017	2018	2019	2020	2021
B. Labour Market Efficiency Pillar	66.0	72.5	75.3	69.5	63.4
B1 Quantity of labour	49.8	55.1	55.4	53.5	54.2
B1.01 Labour force	100.0	100.0	100.0	100.0	100.0
B1.02 Employed	100.0	100.0	100.0	99.2	99.9
B1.03 Unemployed	0.2	n.a.	n.a.	n.a.	n.a.
B1.04 Outside Labour Force	n.a.	n.a.	n.a.	n.a.	0.1
B1.05 Labour Force Participation Rate	17.5	18.6	19.8	18.9	19.5
B1.06 Employment to Population Ratio	16.2	17.3	18.4	15.1	15.4
B1.07 Unemployment Rate	25.2	30.0	30.0	n.a.	n.a.
B1.08 Share of high-skilled employed person to total employment	84.4	76.6	84.8	100.0	100.0
B1.09 Skill-related underemployment	100.0	100.0	100.0	100.0	100.0

B1.10	Hours of work	6.6	n.a.	5.9	n.a.	11.8
B1.11	Youth unemployment	0.3	n.a.	n.a.	n.a.	n.a.
B1.12	Employment in the informal economy	96.9	84.5	71.4	100.0	100.0
B1.13	Part-time employees	n.a.	100.0	100.0	71.5	71.5
B1.14	Salaries & wages of employees	100.0	100.0	100.0	95.2	95.2
B1.15	Share of tertiary education to total employment	100.0	100.0	100.0	100.0	100.0
B2	Flexibility	75.9	89.3	97.0	82.1	64.6
B2.01	Variability of salaries & wages	65.6	90.5	100.0	72.0	84.0
B2.02	Mismatch index	86.3	88.1	94.1	92.6	45.2
B3	Efficient use of talent	72.3	73.0	73.5	73.0	71.3
B3.01	Labour productivity	100.0	100.0	100.0	100.0	83.1
B3.02	Reliance on professional management	80.4	80.4	79.4	79.4	79.4
B3.03	Country capacity to retain talent	80.1	80.1	80.1	80.1	80.1
B3.04	Country capacity to attract talent	73.4	73.4	73.4	73.4	73.4
B3.05	Female participation in labour force	100.0	100.0	100.0	100.0	100.0
B3.06	Number of older workers to total employment	0.1	n.a.	n.a.	n.a.	5.0

Note: n.a. denotes the data are not available.

Source: Computed by EU-ERA, THE FUTURE

Labour Demand Pillar

The Labour Demand Pillar assesses the strength and dynamism of labour demand within the country. This pillar analyses the country's ability to generate sufficient job opportunities and attract talent in connection to economic growth. There are two main labour demand pillars which are employers' perspectives and macroeconomic conditions. Overall, the trend of labour demand pillar score in Malaysia decreased from 2017 until 2021 with 44.2 in 2017 and 42.0 in 2021 (see **Table 3**).

In 2017 and 2018, the employers' perspectives score was 30.4, higher than the score in 2019 to 2021 at 29.3. The reduction in the score can be attributed to the impact of the COVID-19 pandemic, leading companies to cut costs due to the movement restrictions and slow economic growth. Additionally, the pandemic also affected productivity level, resulting in a decline in the wage rate. Particularly, the score

for the pay and productivity indicator had declined from 91.1 in 2017-2018 to 87.9 in 2019-2021, making the overall score of the employers' perspective decline. However, technically, the score is also subject to data availability.

In 2018, Malaysia achieved the highest macroeconomic conditions score of 64.7, but from 2019 to 2021, the score steadily declined to 55.4, potentially influenced by external shocks and exchange rate fluctuations. A stronger GDP growth score can drive business growth and create more job opportunities, positively impacting labour demand. Additionally, increasing government expenditure can stimulate job creation in both the public and private sectors through investments in national development.

A lower exchange rate score indicates a weakened domestic currency relative to others. This can result in cheaper exports and more expensive imports. The impact on labour

demand depends on various factors, such as the demand for exported goods, inflation levels, and the characteristics of the labour market. Lower-cost exports may lead to increased labour demand in related industries,

while more expensive imports could potentially drive higher inflation and living costs, putting pressure on employers to raise wages, thus potentially increasing labour demand.

Table 3
Labour Demand Pillar Score, 2017-2021

Indicators		Year				
		2017	2018	2019	2020	2021
C. Labour Demand Pillar		44.2	47.6	45.1	42.4	42.0
C1	Employers' Perspectives	30.4	30.4	29.3	29.3	29.3
C1.01	Active labour market policies	n.a.	n.a.	n.a.	n.a.	n.a.
C1.02	Internal labour mobility	n.a.	n.a.	n.a.	n.a.	n.a.
C1.03	Pay and productivity	91.1	91.1	88.0	88.0	88.0
C2	Macroeconomic Condition	58.1	64.8	60.9	55.5	54.8
C2.01	GDP growth	100.0	28.8	n.a.	n.a.	76.0
C2.02	Federal Government Development Expenditure: A Functional Classification	100.0	100.0	97.3	93.1	100.0
C2.03	Exchange rates:					
	US Dollar (USD)	n.a.	15.0	8.8	5.4	8.8
	UK Pound (GBP)	60.7	67.2	71.2	67.0	53.8
	Euro (EUR)	3.7	9.5	17.9	7.5	0.4
C2.04	Inflation	n.a.	100.0	100.0	100.0	26.8
C2.05	Exports	100.0	100.0	99.4	98.7	100.0
C2.06	Number of new establishments	100.0	97.7	92.7	72.3	72.3

Note: n.a. denotes the data are not available.

Source: Computed by EU-ERA, THE FUTURE

Course of action – Take-all-paradigm for winning labour market planning

The primary objective of this policy brief is to introduce the Labour Market Competitiveness Index (LMCI) for Malaysia. The index is constructed based on 45 quantitative and qualitative indicators of the labour market, organised into labour supply, labour demand, and labour market efficiency pillars. There are four applications of LMCI for policymakers to consider.

To utilise and enhance the LMCI for formulating effective labour market policy.

The LMCI can be utilised as a tool to formulate effective labour market policy due to its wide coverage of indicators spreading across different pillars. The LMCI involves check-and-balance mechanism, where it does not only compose of indicators that measure the quantitative aspect of the labour market, but also qualitative-based information to provide insights on the quality of delivery of the respective labour market indicator and policy. To enhance the LMCI, more indicators can be incorporated from different data sources, including the administrative data. In addition,

the index shall be timely monitored and updated, and expanded across geographical locations for a meaningful analysis.

To integrate the LMCI with other macroeconomic modelling for advanced quantitative measures. The LMCI provides simple and straightforward yet powerful information on the labour market performance as it covers the main pillars of labour market. In fact, its ability to incorporate quantitative and qualitative information makes it more meaningful for policy making. For better insights for policy making, the information from LMCI can also be integrated with other macroeconomic modelling for advanced quantitative measures, including for forecasting some macroeconomics indicators.

To incorporate the LMCI into the labour market information infrastructure. The development of a comprehensive labour market infrastructure is one of the policy directions in the Twelfth Malaysia Plan (12MP).

To provide further insights for policy making, the LMCI could be a candidate that can be incorporated in the labour market information and analytics program. This is to optimise the usage of the labour market data that are integrated from different resources, to generate a meaningful index such as LMCI.

To consider additional indicators for a more comprehensive labour market health metrics. The use of 45 indicators should not be viewed as adequate to measure multi-dimensional perspective of the labour market. For example, employers and employees are the main stakeholders in the labour market, henceforth qualitative perspectives based on these shall be expanded in the LMCI calculation in order to acquire a balanced evaluation of the labour market condition. For example, satisfaction with compensation schemes and social security protection coverage, and labour market institutional quality could be part of the LMCI calculation.

Box Article 1 – LMCI Pillar Definitions and Sources

The LMCI comprises three pillars, each with its own set of sub-pillars with a total of 45 indicators have been included, reflecting critical factors affecting labour market competitiveness. This section provides a detailed description of each sub-pillar and its significance.

Pillar 1: Labour Supply Pillar

This pillar evaluates the quantity and quality of the available labour force in a country. It assesses the country's ability to provide a skilled and productive workforce to meet the demands of the labour market.

1.1 Quantity of Education

The quantity of education can contribute significantly to the labour supply pillar of competitiveness by increasing the workforce's skills, knowledge, and productivity. This can be achieved by the indicator that is listed through formal education such as primary, secondary, and tertiary education, as well as through government expenditure and a number of graduates.

1.2 Quality of Education

While the quantity of education is important in ensuring that a workforce has the necessary skills and knowledge, the quality of education is equally important in ensuring that those skills and knowledge are relevant, up-to-date, and of a high standard. Laxity in the educational system could have caused a stagnant score of quality of education with 75.4 from 2018 to 2021.

1.3 On-the-job Training

This sub-pillar can enhance the skills and knowledge of the workforce. In addition, on-the-job training can help workers develop new skills and improve existing ones, which can lead to increased productivity.

Pillar 2: Labour Market Efficiency Pillar

This pillar focuses on the efficiency and flexibility of the labour market. It evaluates the extent to which labour market regulations and practices facilitate the efficient allocation of resources, adaptability to changing economic conditions, and productivity growth.

2.1 Quantity of Labour

Quantity of labour refers to the number of people who are available and willing to work in the labour market. If there is an oversupply of labour this can lead to lower wages and reduced bargaining power of workers. This can result in a decrease in job satisfaction and motivation, leading to lower productivity and efficiency in the workforce.

2.2 Flexibility

Flexibility is one of the common pillars included in labour market efficiency. A more flexible labour market is generally seen as a positive factor for overall labour market efficiency, and this can lead to increase in productivity and competitiveness.

2.3 Efficient Use of Talent

Efficient use of talent measures how well a country is able to develop and retain talented workers and ensure that their skills and that produces skills and abilities are put to effective use in the economy. A higher score in efficient use of talent suggests that a country has a good education system that produces skilled workers and a flexible labour market.

Pillar 3: Labour Demand Pillar

This pillar assesses the strength and dynamism of labour demand within the country. It reflects the country's ability to generate sufficient job opportunities, stimulate economic growth, and attract investment and talent.

3.1 Employers' Perspectives

The employers' perspective refers to the process of decision-making in maximizing profits and production of goods and services by determining the best number of workers to hire at different wage levels. This leads to employers' consideration in choosing the optimal solution for the company such as the availability of worker's skill levels, and government regulations and policies that affect the labour costs.

3.2 Macroeconomic Condition

Other than from the employers' perspective, the state of macroeconomics is also important in the aspect of labour demand and profitability of business. There are several elements that may affect the labour demand in a country such as economic growth, government expenditure and revenues, exchange rates that affect import and export, interest rates, and inflations.

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EU-ERA Policy Brief

EU-ERA Policy Brief offers a short note with combined analysis and policy recommendations in addressing developmental issues that are directly and indirectly affect the labor market in Malaysia. This policy brief aims to generate a forward-looking and proactive discussion among policymakers, researchers and stakeholders in identifying emerging trends, challenges, and opportunities in the economy. The orientation is toward the real-world policy challenges and opportunities, with an emphasis on providing practical recommendations that can help guide decision-making.

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