

Underutilization Skills Mean Underutilization Potential

What are the Policy Options for Malaysia?



Summary

- ◆ The size of skill underutilization in Malaysia is expanding and seen to be persistent over time, depicting a structural nature similar to unemployment. The true potential of the workers cannot be maximized when there is a considerable gap between the skills possessed and the skills required in the workplace.
- ◆ Return to education is relatively lower in the presence of skill underutilization. In the case of tertiary education, workers with skill underutilization receive wages approximately 50% lower than those with skill utilization.
- ◆ The size of skill underutilization between Malaysia and the European countries is comparable but it is not becoming extensive public debate in Europe compared to Malaysia. A review of the European labor market suggests that Malaysia may require a two-stage intervention approach to ensure that skill underutilization does not lead to socio-economic implications.

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Introduction

Skill underutilization can be defined as a condition where people hold skills beyond those required to perform their job. The incidences of skill underutilization are more serious and significant in Malaysia and seen to be persistent over time, depicting a structural nature similar to unemployment. The true potential of the worker cannot be maximized when there is a considerable gap between the skills possessed and the skills required in the workplace. Similarly, those who have higher skills but work in lower-skilled jobs often earn lower wages.

Although Malaysia experiences low unemployment rates between 3.3% and 2.9% for periods 2011-2019, the divergence between the supply and demand of labors is large. From the total employment of 15.1 million in 2021, only 65.6% of them are recorded to match between education and occupation whereas the rest of 34.4% working in the occupations that require a lower education than what they have and thus contribute to the incidences of skill underutilization. The considerable size of skill underutilization calls for a serious attention from the government because there is a significant amount of investment has been allocated to the education sector. In 2018, the share of education expenditure to gross domestic product (GDP) is 4.5%, which is almost at the same rate as the average OECD level of 4.9%.

The size of skill underutilization is growing in the post-pandemic periods, increasing from 36.9% in the first quarter to 37.4% in the fourth quarter of 2022 (Department of Statistics Malaysia, 2023). The fact that size of skill underutilization in Malaysia is comparable to other developed countries. Then, why the issue of skill underutilization does not become a public debate in developed countries? What lessons can be learned from their labor

policies? This policy brief tends to provide short answers to these questions. The skill underutilization applied in this policy brief refers to the incidence of over-education. A worker is considered as skill underutilization if the occupation in which the worker is employed is over qualified than the minimum educational requirements of the occupation. For example, a skill underutilization worker with tertiary education exists when graduates employed in the semi-skilled and low-skilled occupations (ideally, graduates should be employed in skilled occupation).

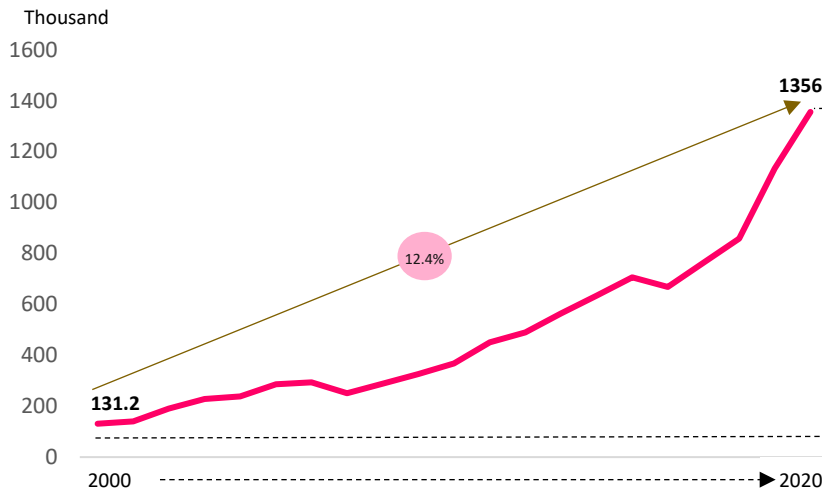
Underutilization resulted from a demand-supply imbalance

Skill underutilization exists due to the size of the supply produced by educational institutions growing faster than the demand by the industry. This situation causes an excess of skills. To put it into context, let us present the case of demand-supply imbalance for the graduate workforce. Figure 1 tabulates the incidence of graduate skill underutilization for the periods 2000-2020. The graduate underutilization applied in this policy brief is structured based on the educational mismatch that focuses on the mismatch in the form of over-education. That is, it measures the size of graduates working in the semi- and low-skilled occupations. In an ideal situation, graduates occupy skilled positions, particularly in occupations classified under professionals, managers and technicians and associated professionals.

According to Figure 1, the size of graduate mismatch increased by 12% per annum from 2000 to 2020, which exceeds the average growth of total employment around 7% per annum. Averagely, 1 out of 3 graduates working in non-graduate jobs.

Figure 1

Size of graduates working in the semi- and low-skilled occupations, 2000-2020



Educational mismatch among graduates has reached 1.3 mil in 2020 – almost 10x increase since 2000.

The size of educational mismatch expanded averagely 12.4% per annum, highest than the to the graduates' labor force growth and employment that increased about 7% per annum.

Approximately 1 in 3 graduates involves in the incidence of skill underutilization.

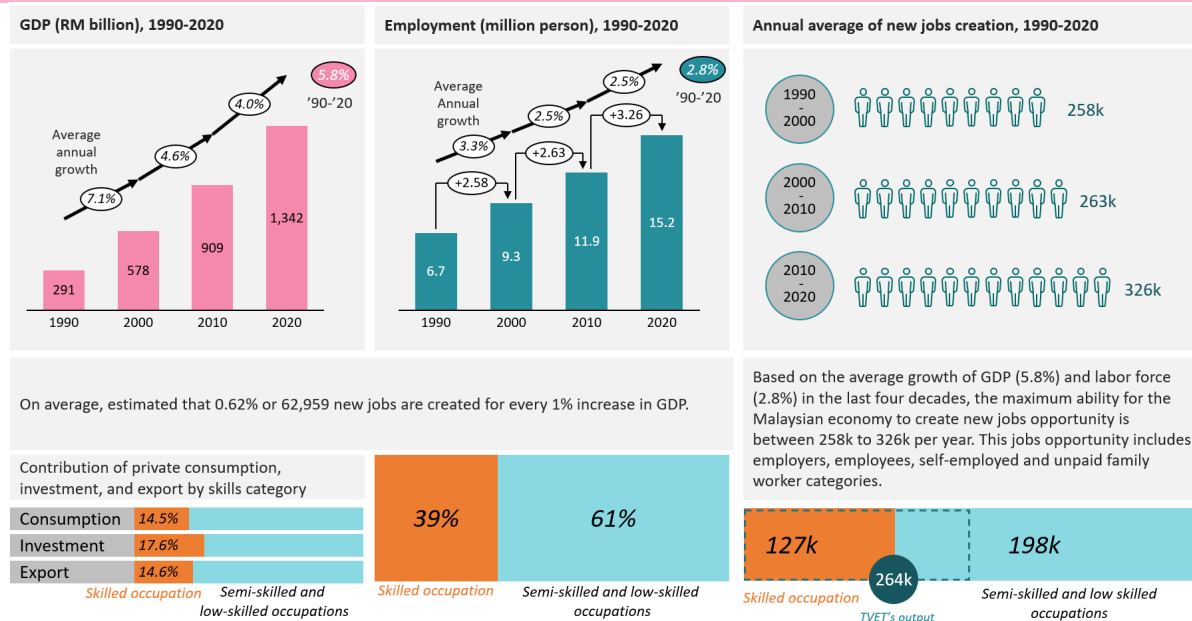
Source: Illustrated and computed based on data from Department Statistics Malaysia, DOSM (2021)

Figure 2 portrays the demand-side perspective of labor market. There are two remarkable observations regarding the structure of labor demand portrayed in Figure 1. First, the maximum capacity of the Malaysian economy to generate employment is around 258,000 to 326,000 per annum under the normal circumstances. Second,

the economy generated more jobs for semi- and low-skilled workers with the average of 61% compared to only 39% for the skilled workers. Thus, the size of skilled jobs created is insufficient to cope with the supply of graduates who enter into the labor market around 224,000 on average every year.

Figure 2

Size of shadow economy around the world, 2018



Source: Estimated and analysed by EU-ERA based on data from Department of Statistics Malaysia (DOSM)

Deep diving the sources of graduate underutilization by measuring the skill content embodied in final demands, provided at the bottom-left hand side of Figure 2, indicates economic growth promotes demand for semi- and low-skilled jobs. Approximately, one-fourth of total jobs generated by private consumption, gross capital formation (investment) and exports are for skilled jobs. Public consumption is the only final

demand component that shows the highest skilled generation with 47%, but the size of the public consumption is relatively smaller with made up about 10% of total final demands. These observations indirectly verify that our investment and exports are concentrated on the relatively lower value-added activities, which in turn benefit more semi- and low-skilled workers.

Skill underutilization contributes to lower returns on education

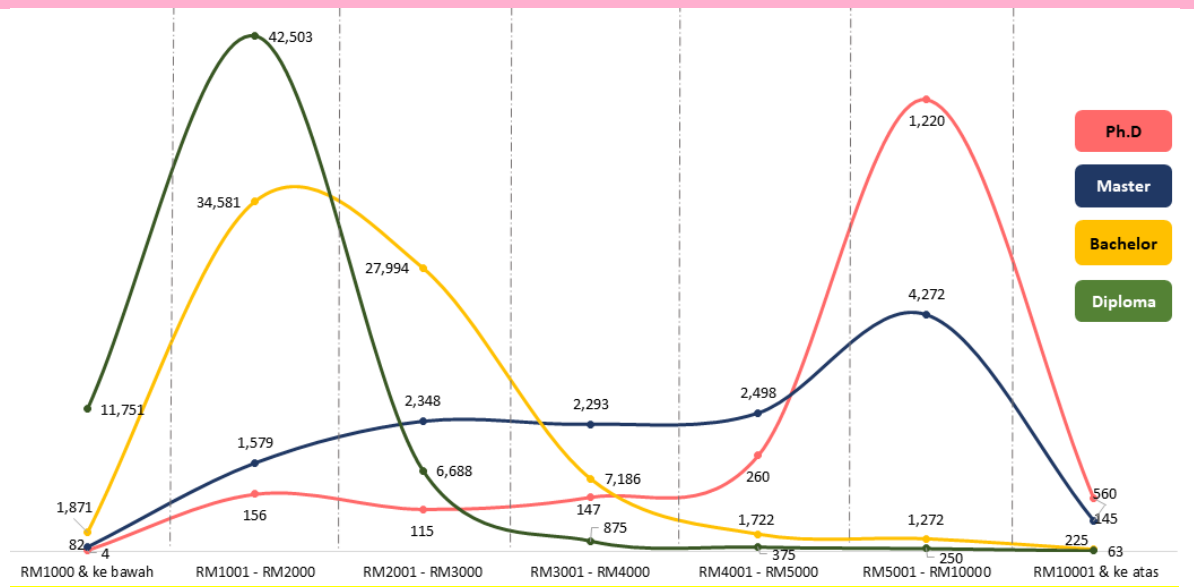
A concern comes into the picture of returns to education when the incidences of skill underutilization are pervasive. This is particularly true when educational mismatch emerges in the labor market in which acquired job and individual education attainment are not aligned. This becomes an additional cost to the economy, especially in the presence of skill undeutilization and that is based on two perspectives. On one hand, the economy suffers from inefficient resource allocation that could have been utilized to promote economic growth through higher labor productivity. It is a false market signaling in the labor market in which high-skilled workers are occupying low-paid jobs. On the other hand, the investment in education, which is largely a public

investment, would not be paid off well as the result of demand and supply mismatches.

When the return on education is low in the presence of skill underutilization, this incidence is expected to influence the livelihood of households such as the cost of living and income inequality. Figure 3 distributes the monthly income earned by graduates according to diploma, bachelor, master and Ph.D. holders, extracted based on the pre-pandemic Graduate Tracer Study. The distribution of income shows three different concentrations of graduates, starting from below RM2000, RM2001-RM5000 and above RM5000. The most remarkable observation is that 64% of graduates earn a monthly income below RM2000.

Figure 3

Distribution of graduates with a monthly income in 2018



Source: Illustrated based on Graduate Tracer Study, Ministry of Higher Education (MOHE), (2018).

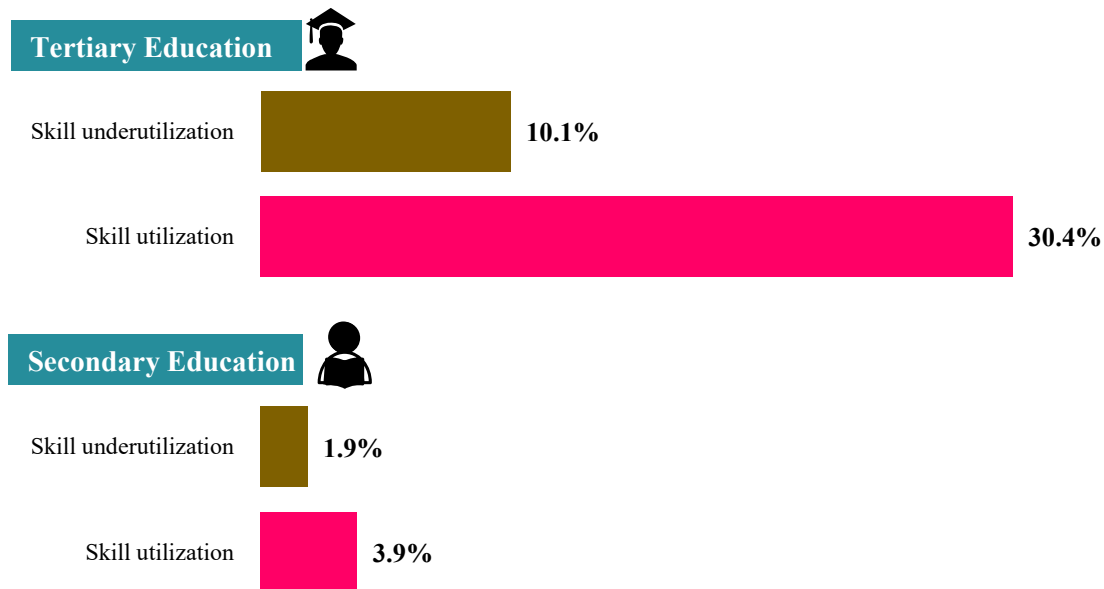
The distribution of income in Figure 3 does not provide information on the return on education for workers with skill underutilization and those with skill utilization. To fill in the gaps, an empirical assessment on estimating the returns to education in the presence of skill underutilization is performed and summarized in Figure 4. There are two key observations obtained from the estimation worthwhile mentioning.

First, there are positive returns to education in Malaysia for both tertiary and secondary education. Results show that an additional year of schooling is likely to increase the annual wage by approximately 5.7%. Estimated coefficients for tertiary education are higher compared to secondary education,

confirming the human capital expectation that income increases along with the years of schooling. Second, results show that workers with skill underutilization receive relatively lower wages. The return to education coefficient for skill underutilization is one-third of the case of workers with skill utilization (matched qualification). The gap in the return to education between skill underutilization and skill utilization becomes smaller in the case of secondary education. In the case of tertiary education, the return of education for skill underutilization is approximately 50% lower than skill utilization. Thus, the return on education is more important to be addressed at a higher level of education.

Figure 4

Estimated share of return to education for tertiary and secondary education



The estimated coefficients return on education for the tertiary education are larger than the secondary education, implying education investment increases in the return on education. In the presence of skill underutilization, over-educated workers receive relatively lower earnings than matched education as shown by the estimated coefficients. For example, over-educated workers with tertiary education earn one-thirds of the workers with matched tertiary education.

Sources: Estimated by EU-ERA

Recommendations

Key lessons from the European labor market

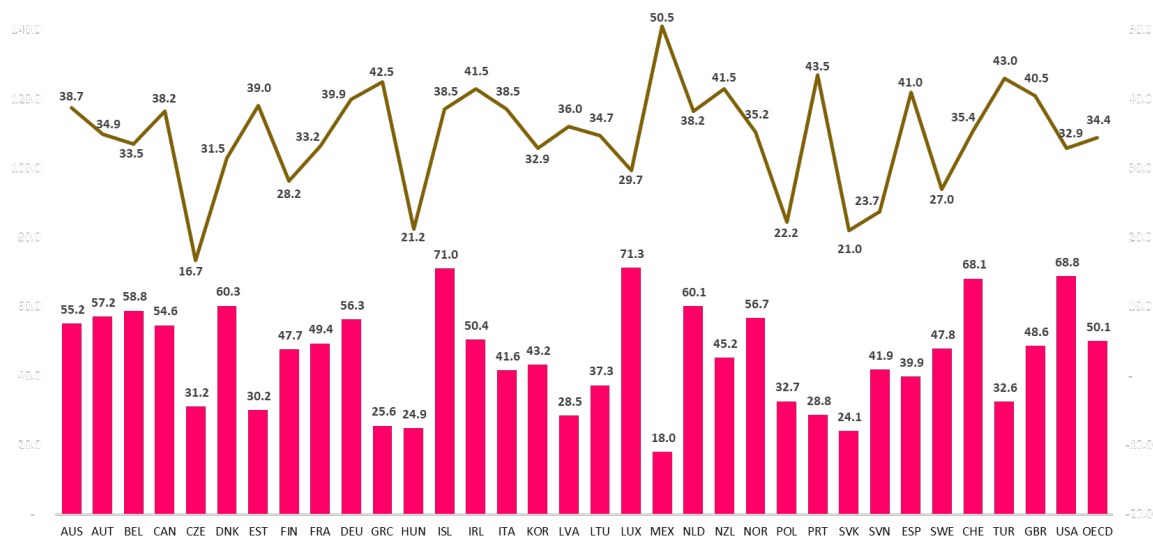
Skill underutilization is a global phenomenon

Skill underutilization is a global phenomenon and eliminating it is almost impossible but reducing it is promising. Figure 5 shows a considerable size of skill underutilization observed in OECD countries, which is fairly comparable to the Malaysian context. Germany (DEU) and Great Britain (GBR) record

39.9% and 40.5% of skill underutilization in 2019, while the average of OECD countries is 34.4%. This observation suggests that eliminating skill underutilization is impossible in practice as far as economic cycles and structural shifting are concerned. But, reducing skill underutilization is promising.

Figure 5

Size of skill underutilization and annual average wage in OECD countries



Notes: Average wages are obtained by dividing the national-accounts-based total wage bill by the average number of employees in the total economy, which is then multiplied by the ratio of the average usual weekly hours per full-time employee to the average usually weekly hours for all employees. This indicator is measured in USD constant prices using 2016 base year and Purchasing Power Parities (PPPs) for private consumption of the same year. The mismatch job data refer to 2019, with the following exceptions: referring to 2017 for KOR; 2016 for AUS; 2015 for TUR; 2014 for BRA.

Source: Illustrated based on OECD data (2019)

Well-functioned labor market

The issue of skill underutilization in Europe not becoming an extensive public debate as it is in other regions such as North America. What can we learn from the European labor market systems? The fact that European labor market has a different structure and history than other regions. While higher wages in Europe may help to compensate for skills mismatches to some extent, they are not the

only factor that contributes to the lower incidence of skill underutilization in Europe. The well-developed vocational education and training systems, social safety nets, and collective bargaining systems also play important roles. These factors have helped to mitigate the issue of skill underutilization, which is why it is less publicly debated in Europe.

Valuing skills and providing fair wages

Fair wages can help to attract and retain skilled workers, which can contribute to a better alignment of skills with the needs of employers. When workers are paid fairly, they are more likely to be motivated to stay in their jobs and develop their skills, which in turn reducing the risk of skills mismatch. In Europe, there is generally a culture of valuing skilled workers and providing them with fair wages and good working conditions. This can

contribute to a more stable and productive labor market, which helps to reduce skills mismatch. Evidently, the average annual wage in Germany after adjusting for purchasing power parity is 56,300 USD (equivalent to 4,691 USD per month) as shown in Figure 5. The German wage is almost seven times of the Malaysian wage but the size of skill underutilization between these countries is comparable.

Well-developed vocational and training systems

In addition to wages, the vocational education and training systems in Europe are well-developed, and workers are often trained in specific skills that are in demand in the labor market. This helps to reduce skill underutilization by ensuring that workers have the skills that employers are looking for. Additionally, many European countries have strong social safety nets and publicly funded training programs, which can help workers who experience

skills mismatches to retrain and acquire new skills. Another factor that may contribute to the lower incidence of skills mismatch in Europe is the existence of strong unions and collective bargaining systems. Unions can help to ensure that workers are trained in the skills that are in demand in the labor market, and they can negotiate fair wages and benefits for their members.

Two-stage proposed interventions

In our view, Malaysia may opt for a two-stage intervention approach in dealing with the issue of skill underutilization. The first stage is to implement efforts toward increasing wages, especially for low-income workers. This allows their wage to cope with the increased cost of living. The second stage is to empower vocational and training systems, and

realign the supply of education and training programs to keep pace with industry changes. In addition, efforts to improve social safety nets, and collective bargaining systems also need to be addressed. The second stage interventions are more directed towards medium and long-term targets.

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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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Centre for Future Labour Market Studies (EU-ERA) is a state-of-the-art research centre in Malaysia that focuses on the labour market research and analytics. EU-ERA operates as a nucleus hub within The Future Studies Berhad (The Future). We are dedicated to conducting cutting-edge research and analysis on the rapidly changing economic and labor market landscapes, with the goal of informing policymakers, businesses, and the public about the implications of these changes.

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