

Nottingham-World Bank Economics Essay Competition 2021

The Fourth Industrial Revolution (4IR) is the ‘most recent transformative shift in the way that we create and transfer services, goods, and information among buyers and sellers’ (Karr, Lokshin, & Loh, 2020). It is powered by a series of interconnected technological breakthroughs that form the foundation for new economic frameworks. Similar to the previous three Industrial Revolutions, the 4IR is set to bring about a huge disruption to the global economy and our way of life. Far from being a vision of some sci-fi future, the 4IR and the rise of a digital economy is actually just at our doorsteps, and it is beginning to undermine common notions regarding how our economy operates. This essay will explore the economic consequences for Malaysia should technology ever replace 50% of current jobs, the benefits and drawbacks brought about by this scenario and whether Malaysia would benefit from it ultimately.

Being the fourth-largest economy in Southeast Asia, Malaysia’s economy has proven to be incredibly robust. Due to the high concentration of knowledge-based enterprises, as well as the adoption of advanced manufacturing technology, Malaysia enjoys a rather high labour productivity, with labour productivity per hour worked increasing by 3.4% in 2020 (Department of Statistics, Malaysia, 2020). It is worth mentioning that a big part of Malaysia’s manual workforce consists of foreign workers, mainly from neighbouring countries like Indonesia, Bangladesh, Nepal and the Philippines. While possessing a strong middle class, Malaysia has a globally recognised friendly business environment, ranked twelfth globally by the World Bank in 2020 (The World Bank, 2020). All these point to Malaysia having a healthy economy to adapt to the ever-changing global environment that is being disrupted often by advancement in technologies.

In order to understand the economic consequences if technology replaces 50% of current jobs in Malaysia, we ought to explore how it would affect workers, who make up the majority of its citizens. Automation refers to ‘hardware or software that is capable of doing tasks automatically without human intervention’ (Karr, Lokshin, & Loh, 2020). As of now, its effect can be best observed in the manufacturing sector, primarily in factories such as automobile factories or textile factories, especially those owned by large corporations such as Tesla and Arvind Limited. Sights of huge but delicate robotics being employed in the manufacturing process can be commonly seen. Needless to say, from the corporations’ perspective, the reason for automation is to reduce the necessity of paying workers, hence cutting the cost of production and reducing the labour power needed to maximise profit. This does not necessarily bode well for the workers. We have seen countless examples in many economic sectors whereby employees are being replaced by technology, be it on assembly lines or behind phones. Under the current technological development level, something in common that the jobs replaced have is that they are routine jobs. Workers working low-skilled routine jobs face issues pertaining to their job safety as a result of their job's structure, in which demand for improved skills is lacking. Such workers are quickly substituted by improved technologies, and the tragic yet inevitable result is structural unemployment, meaning unemployment that is caused by changes in industrial structures and innovation pertaining to production technologies in this context.

Owing to the lack of tertiary education credentials needed, low-paying and low-skilled work are often taken up by the less educated. Automation's replacement of such workers would result in the reduction of income for lower income groups, hence worsening the income disparity. Facing a lack of labour market competencies, this phenomena creates a series of problems for the unemployed. Firstly, the unemployed would struggle to meet their everyday expenses such as food and accommodation costs as a result of them not having a stable income, this would lead to a decrease in their living standards. Secondly, a rise in unemployment rate would worsen social problems and cause a rise in crime rate, eroding social cohesion and discouraging investors. Thirdly, unemployment would mean that Malaysia’s labour resources are not being fully used in production, limiting national income due to waste of resources. Last but not least, unemployment significantly stifles economic development while decreasing effective demand at the same time. The unemployed, who have little to no purchasing power due to not having sufficient disposable income, would prove ineffective in contributing to the national aggregate demand in Malaysia. Additionally, technological advancement is guaranteed to face much resistance from displaced workers who lack the ability and willingness to adapt to the changes, similar to the Luddites in Nottingham who destroyed

textile-producing machines to release their anger two hundred years ago (Byrne, 2013).

At first sight, these might seem to be extremely detrimental consequences for Malaysia. However, a big part of Malaysia's manual workforce consists of foreign workers as stated above. A problem this causes is remittance outflow from Malaysia to the foreign workers' home country. According to Müller, the value of remittance outflow from Malaysia totalled \$1,410,000,000 in 2020 alone (Müller, 2020), resulting in a significant leakage from the circular flow of income, decreasing the amount of money available for domestic consumption and investment, hence stifling economic development. Although automation of labour would displace a huge number of foreign workers, it would prove to be valuable in reducing leakage from the circular flow of income, thus increasing Malaysia's national income in the short-term.

Does it mean that 50% of the Malaysian labour force would be unemployed if technology replaces 50% of current jobs in the country? I believe that it is absolutely not the case. Whilst jobs are being displaced by automation, new jobs will be created as well. Following the advancement and penetration of various technologies, people who have the relevant foundational knowledge to design and maintain the technologies, as well as those who do not yet possess the necessary skills but are flexible enough and are willing to learn, would face an increase in demand, similar to how computer scientists became highly desired since the advent of the Internet. At the same time, since complete automation is not something that can happen overnight, some members of the displaced workforce would be able to upskill themselves in time. Moreover, there would sometimes even be whole new industries that are built upon the aforementioned technologies, creating a wide opportunity for those who are ready to take advantage of it. Indirectly, labour-saving technologies would not only cut labour costs for corporations, but also raise the productivity rate, hence increasing the corporations' profits. This would provide more opportunities for them to expand by creating more products, improving their existing products and exploring new markets, creating more job opportunities. Besides that, increased profits for corporations would also mean that they will have more capital to invest in Research and Development, further propelling the advancement of technology.

There is much to be learnt when we analyse the beneficiaries and ones harmed in this scenario. For a long time, technological advancement has been seen as something for people to strive for because it has the capability to replace us in our work and leave us with more leisure time to spend with our friends and families. A close look at what is happening now would quickly dispel this illusion. Technology has advanced to heights that were unimaginable even a decade ago. We have the ability to create a society of luxury for all, to build metropolises that even the best sci-fi writers could only dream of, and to advance our species on an unprecedented scale. Ostensibly, we are on the verge of entering a new epoch. Through technological improvements, workers produce more in the same amount of time, yet never once has this resulted in workers working fewer hours. Instead, the industrialists who have ownership over the capital and products that are produced have been getting richer.

Thus, the idea that technological advancements would bring us closer to complete liberation remains in doubt. In lieu of liberating the workforce from labour, technology has displaced a large number of them and has created a huge reserve army of labour that will drive wages further down, resulting in workers in general having lower wages and fewer benefits as they would have to compete viciously with one another by providing their services at a lower cost in order to be employed. In the short-term, this may seem to be completely beneficial to the industrialists who can have their costs go down. However, from a long-term perspective, the industrialists who can afford to produce much more for much less because of technological advancements will not actually be able to sell their products because the displaced workers will not have the money to buy the products that the industrialists are churning out simply due to the fact that they have lost their main source of income.

So, would we, as Malaysians, be better off ultimately? As with most things, the answer is rarely simple and direct. I may have painted a grim future for the socioeconomic impacts should technology ever replace 50% of current jobs in Malaysia. Be that as it may, I still believe that there is a solution to all the problems mentioned above. Rather than having machines put large swaths of the population out of work, Malaysia ought to build a system in which the technological advancements would be used as intended, which is to reduce the amount of work workers need to do without dropping people from the workforce. This would be achieved when planned restructuring of production and service can take place, opening up

new avenues for employing those whose work has been automated. Rather than working unnecessarily long hours, workers could work fewer hours and let the new technologies carry all the heavy workload under this system. I believe that such a reality could only be made true if Malaysia can establish a truly democratic economy, one in which the workers control the production of goods and services as well as the implementation of technologies through worker cooperatives, unlike under a completely free market economic system in which the industrialists do. Only then can technological advancements be used to serve the interests of the broad Malaysian populace rather than for the profit of a few individual industrialists. Under this system, Malaysian workers would be able to democratically engage in their corporation's decision-making process, which places the welfare of the workers and the nation at the centre of its mission. To establish such a system, I believe there is much that Malaysian policy-makers and workers can learn from the Mondragon Corporation, a highly successful federation of worker cooperatives based in the Basque region of Spain (Mondragon Corporation, 2019).

Eventually, Malaysian workers could be freed from mundane work with technologies such as Artificial Intelligence and automation becoming universal. Instead of being an appendage to the machines, workers would now have the work of designing and maintaining the machines, a form of work that is more versatile and requires education as well as creativity. On top of this, Malaysians could devote more time to their own creative development and leisure, allowing everyone to maximise their creative potential for the creation of art, invention or entertainment. Technology would finally be used as a liberating force instead of being a destructive force in society.

All in all, it remains not to be doubted that technology replacing 50% of current jobs would result in many Malaysian workers being displaced, creating and leaving jobs only for those who are sufficiently skilled. This would certainly result in the occurrence of various social problems, much like the First Industrial Revolution did. In the short-term, it would appear that the industrialists have the most to benefit while the common workers have the most to lose. Observing the current trend, however, it is more likely that the technological advancements would culminate in a lose-lose scenario. As a Malaysian youth, I sincerely yearn for a day when a more democratic, fair and equitable economic system is put into place in Malaysia, a day when Malaysian parents have free time to spend with their beloved children and a day when all Malaysians can sleep soundly knowing that their bellies would be full the next day.

(1995 words, excluding references)

References

Byrne, R. (2017, April 13). *A Nod to Ned Ludd*. The Baffler.

<https://thebaffler.com/salvos/a-nod-to-ned-ludd>

Department of Statistics, Malaysia. (2020, May 21). *Department of Statistics Malaysia Official Portal*.

Department of Statistics Malaysia Official Portal.

https://www.dosm.gov.my/v1/index.php?r=column/cthemedByCat&cat=438&bul_id=YS93QnBl

eEIxdWIEUFY0cURuRIJrQT09&menu_id=Tm8zcnRjdVRNWWlpWjRlbmtlaDk1UT09 Karr, J., Lokshin, B., &

Loh, K. (2020, February). *The Future of Work Across ASEAN*. The Asia Foundation.

https://asiafoundation.org/wp-content/uploads/2020/02/The-Future-of-Work-Across-ASEAN_summary.pdf

Mondragon Corporation. (2019). *Annual Report 2019*. <https://www.mondragon>

[corporation.com/2019urtekotxostena/finanzas.php](https://www.mondragon.com/2019urtekotxostena/finanzas.php)

Müller, J. (2020, December 10). *Outgoing remittance from Malaysia 2005–2020*. Statista.

<https://www.statista.com/statistics/1076724/outgoing-remittance-from-malaysia/> World Bank. (2020). *Ease of Doing*

Business in Malaysia.

<https://www.doingbusiness.org/en/data/exploreconomies/malaysia>

Yi, S., Simler, K., Loh, W. S., & Tan Wei, K. (2020, April). *Who is Keeping Score? Estimating the*

Number of Foreign Workers in Malaysia. World Bank.

<https://documents1.worldbank.org/curated/en/892721588859396364/pdf/Who-is-Keeping-Score>

[Estimating-the-Number-of-Foreign-Workers-in-Malaysia.pdf](https://documents1.worldbank.org/curated/en/892721588859396364/pdf/Who-is-Keeping-Score-Estimating-the-Number-of-Foreign-Workers-in-Malaysia.pdf)