The impact of an AI economy

The rise of artificial intelligence (AI) will bring about a major change to the world economic order, said renowned futurist Brett King (picture) at the PNB Corporate Summit 2019 in Kuala Lumpur last week.

King, who is co-founder of financial technology (fintech) start-up Moven, said the proliferation of AI will have an unprecedented impact on global supply and demand mechanisms. "Traditionally, as demand for products went up, you would see an increase in labour participation throughout the economy, which would produce the supply. But in a world where AI is central to the economy, all one would need to do is increase processing cycles on a computer [to facilitate increased supply of a product or service]. It would not be necessary to employ more people."

Speaking to a packed hall on "Life and Work in the Augmented Age", he said the recent global shift to economic nationalism, most prominently characterised by the election of US President Donald Trump and the ongoing Brexit saga, is in fact an underlying element of wider economic changes. "People are worried about their employment prospects. They are also worried about the future of their children. In fact, the protests in Hong Kong are as much about inequality between the rich and the poor as they are about the Chinese government and its policies [on Hong Kong]," he added.

There is no way to prevent technology from impacting Malaysia's economy. Instead, we would be much better off planning for the coming disruption and thinking about the structural changes needed, said King. Individuals, corporations and nations will have to think long term, beyond just next quarter's business performance or next year's GDP data, he pointed out.

There are examples in history that provide indications of just how disruptive technological changes can be. For example, in the 19th century, 70% of the US workforce was employed in agriculture. When tractors and modern farming equipment arrived, they decimated employment in this sector. Now, only 1.6% of the US population is in agriculture.

The US workforce then migrated to manufacturing as industrialisation swept through the country. "The factories were a major boost to the middle class. In fact, some economists say the emergence of multi-production lines in the early 1900s were responsible for the middle-class boom in the US," said King.

Today, factories are highly automated operations. He cited billionaire entrepreneur Elon Musk's Tesla Inc factories as an example. "Musk said the reason they have machines building cars is that if humans dominated the factory floor, he would have to slow production down to human speeds. And this explains why manufacturing is being disrupted."

The next few decades will see machines take on a host of even more fundamental tasks, thus further displacing the human workforce. "As an example, 40% of the world's vacuum cleaners sold today are robot cleaners that autonomously clean the floor. That is great, but the robots cannot also make you coffee, give you relationship advice or drive you around. It is limited to executing just that one task," said King.

He added that the next evolutionary stage of AI is known as artificial general intelligence. "This refers to AI mimicking humans, at least in terms of conversational quality. Think Apple Inc's Siri or Amazon's Alexa."

After a few years of innovation, maybe by 2050, they will develop machines that are smarter than humans, said King. Workers are now moving out of factories and into the services sector, he pointed out. "But with automation attacking the services sector, where do we go next?"

IMPACT ON FINANCIAL SERVICES

Speaking to The Edge on the sidelines of the event, King said AI-based technologies will fundamentally alter the way financial services are delivered and consumed. "By the middle of the next decade, more people will have a mobile or cloud-based wallet than a traditional bank account.

"This really brings into focus the question: What is a bank account? After all, if your money is stored on your phone or in the cloud, and you can readily access it via a mobile device, do you still need a bank?"

Nevertheless, he pointed out that banks provide more than just storage and easy access to money. It also offers access to credit.

"I believe banks will retain some of these functions. However, the biggest disruptor to the banking system will be that the way we use money will become more contextual and driven by behaviour that has been influenced by voice-enabled AI or information delivered to you via a pair of smartglasses," said King.

"For instance, you may walk into a grocery store and your smartphone may inform you that you do not have enough cash to buy your usual list of groceries. And it will access a line of credit for you as a result."

He added that the most effective banks and fintech companies will be those that are able to react intelligently or accommodate a user's behaviour in real time. "I think the ability of an AI-enabled finance tool to react will be the competitive difference between financial institutions of the future." E

known and technology is unlocking new possibilities that may not be structured. So, corporates will have to learn how to experiment," she added.

The focus cannot be just about experimenting with new technologies but also needs to drive real commercial outcomes, said Dobberstein. "If a company only does experiments without creating tangible commercial outcomes, there will be organisational frustration and a lack of conviction if it fails to do so. Corporates need to have a clear end state in mind when adopting a new technology and start small. It cannot be the other way around because small steps can lead to incrementalism and may end up with no outcome."

The keyword is value, said Surina. Experiments should always be centered on the problem that needs to be solved and how it can lead to continual value-add for customers.

Should all companies have a dedicated innovation arm then? Not necessarily, she said. While companies need to be innovative, there are many ways for them to promote innovation, whether by democratising across the entire organisation or forging partnerships.

There has been a sharp increase in merger and acquisition (M&A) deals over the years, often to acquire talents, capabilities and technologies across key disruptive innovation categories. Dobberstein said this and partnerships are some of the things that companies can do to foster innovation and gain access to talent.

"It is often hard to find the right talent internally. A traditional government-linked company will find attracting data scientists a challenge as they are not seen as the most leading edge of employers. That is why I think they could look at either M&A or partnerships," he said.

Jalil said companies do not have to own everything to innovate. The skillsets required today may take a while to build, so companies wanting to possess certain capabilities within a short period of time may look at partnerships to fill the gap.

"However, if companies were to do M&A, it would be important to keep the acquired entities separate from their original firm to avoid killing their dynamism and enthusiasm. I think we are seeing that with a lot of companies now. There are innovation arms that have been taken out completely from their bigger firms, given a new name and even placed in a separate office. This allows the innovation arm to continue behaving like a smaller company and thrive," he added.

While experimenting with technology is important, there are other things that companies can do to promote innovation, said Gan. One of the things that his company has done to change for the better is creating a flatter organisation. In this structure, decision-making occurs at the staff level and does not proceed from the executives down to the rank and file. Employees in a flat organisational structure are typically given significant authority with little to no supervision.

"Ideas do not usually come from the top. It comes from the middle and lower layers. That is why we chose to make our organisation flatter — so that people in the middle and lower layers can feel that it is okay to have ideas, execute them and fail. We welcome that," said Gan.

This is where leadership comes in, said Surina. She stressed that companies cannot go very far if the top leadership does not understand that this new way of thinking — being more open, promoting innovation and engaging the entire organisation — is needed.

SYSTEMIC ISSUES NEED TO BE ADDRESSED

A lack of competitive pressure, fragmented government efforts and educational shortcomings are some areas of concern in Corporate Malaysia, said Dobberstein.

Speaking at a panel session, titled "Can Malaysia reboot itself?", at the PNB Corporate Summit 2019 last week, he pointed out that these areas need to be addressed to allow corporates to realise their full potential.

There is still a lack of competitive pressure, said Dobberstein. "A leading private equity investor recently described Malaysian entrepreneurs as often being content to earn RM1 million or RM2 million a year."

This may be enough for some, but there must be pressure for them to achieve more, he added.

According to the World Economic Forum's Global Competitiveness Report 2019, Malaysia dropped two notches this year to No 27 of the 141 countries covered in the report.

Another issue is that the efforts made by the Malaysian government are somewhat fragmented and probably may not be hands-on enough, said Dobberstein. "Efforts are driven by multiple agencies that are often more politically oriented rather than impact-driven. Initiatives need not just focus on educating a broad set of SMEs but also provide hands-on support to those that create impact in the economy."

Educational shortcomings are another issue that Malaysia has to solve to help corporates navigate the challenges of the fourth industrial revolution, he said. There is a big gap in the industry — while companies are busy searching for talents in science, technology, engineering and maths, about 25% of the graduates in the country are unemployed.

Surina said during the panel session that the issue does not stop at schools and universities. She pointed out that one of the core skills in adaptability is learning. So, organisational leaders need to prioritise learning to be able to thrive in the current business landscape. E