

## COMPETITION CAN MAKE US BETTER, ESPECIALLY IF WE'RE COMPETING AGAINST MACHINES

COMPETITION is a fundamental driver of progress.

Generally, people don't move forward on their own, they require an external force to inspire, motivate and to benchmark themselves against. It comes in many forms, like direct competition, a challenging business climate, or the ever shifting consumer wants, needs and desires. If the competition is motivating, inspiring and tough, the harder we try to beat it.

Today, we have the (almost) perfect form of competition right beside us. And that is technology. It is helping us pull in and make sense of an ever greater pool of data that shows us more about not just every business, but everything that affects it - stretching from changing trends in consumer demand to weather patterns affecting agricultural output. The innovation it unlocks is certainly welcome, and can raise the competitiveness of any nation. But while we look upon its power in awe, there is a fundamental fear - what will the march of technology do to jobs in the capital markets?

As it is, the emergence of big data, machine learning and AI in capital markets has been moving at a brisk pace. Market research firm Preqin reports that some 1,360 hedge funds now make a majority of their trades with the aid of computer models and in 2017, EquBot LLC went even further, launching an AI Powered Equity ETF (AIEQ) which applies AI based solutions by IBM's Watson to choose stocks.

These new technologies themselves require talent.

According to IBM, data science and analytics jobs now account for 19% of all openings in the Finance and Insurance sectors. There will be a need for employees who are wired for the hard skills of computer science, math and statistics, as well as those deeply connected to the human condition with the expertise in social and behavioural sciences - those who can perceive deeper meaning and value from data and patterns.

Clearly, unlocking the value of data requires a diverse, multidisciplinary approach to problem solving that combines Data Science and Analytics (DSA) skills with industry experience, insight and creativity. So beyond the expected economic gains of efficiency that the use and analysis of real-time data affords the investment community - the broad range of talent required to pull this off is a powerful catalyst for driving diversity - a well-recognised factor in the study of many successful firms.

To keep up, we can't just keep hiring at will. We have to build the talent we need. And that takes education. This is a large, multi-faceted challenge, fraught with political and social landmines.



Malaysia (and the rest of Asean) finds itself drawing from a shallow pool of tech talent. In a 2016 survey by ManpowerGroup, DSA-related jobs were identified by employers in the Asia-Pacific region as being the most difficult to fill. Building the talent pool for these skills forces a fundamental change in the makeup of a nation's education system. This is something only governments can pull off. This is an area where policy must lead the way, before the private sector can latch on and continue to fuel the trend. Leadership needs to place a spotlight on driving higher standards in math and science competency, the bedrock disciplines of any technological field.

There are multiple benefits to achieving this change in the education system that will stretch across the nation and the region. This is the kind of talent pool that nations require to keep up with the next level of global development. Remember, much of our modern education structures were feeder systems for the industrial age. The scale and speed of change that technology brings shows us that more than ever, we need revolution and not evolution when it comes to reshaping our education system.

The capital markets have a big role here. Even though these technologies have shown glimpses of the capacity to contribute to almost every industry around the world, they still represent a huge leap of faith for investors. The march of technology is also destroying other technologies that came before it. Which one would you place your bets on? It is asking us the most difficult question - to believe even before all its answers have been ironed out.

But think about it. Once upon a time, all of today's tech giants (including the likes of Google, Apple, Microsoft, Amazon, WeChat, Alibaba, etc) were small players, probably outside the safety zone of many investors. In the beginning only a few understood these companies, much less wanted to share the risk with them. Today, they are impossible to ignore.

Perhaps a way of looking at it is this: If we were to add up all the gains that these technologies can provide across the many industries they serve, then the risk, when seen as a proportion of the gains, doesn't really seem that large after all. In fact, logic demands that we take that risk and learn to manage it.

And why would we do this? Because it can make us better. Technology is the one form of competition that never gives up, will not find a way to cheat the system or play an underhanded game to get ahead. Technology simply gets better at doing the things it's supposed to do. So if we believe that competition makes us better, then we should put ourselves into the game, and play against the best.



## About Datuk Seri Tajuddin Atan

Datuk Seri Tajuddin Atan is the chief executive officer of Bursa Malaysia. A seasoned banker before taking on the exchange's leadership role, he believes that innovation and creativity can tackle the fundamental changes facing nations, businesses and the capital markets of today.