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TVET as a piece of the Industry 4.0 puzzle

Before we can even delve into the complexities brought about by our [digital era](#), a core base of skilled individuals and experienced talent should first be honed and formed. People are still an essential driving factor in the [improvement](#) of infrastructure. As a society and a nation, how can we expect to grasp the intricacies of innovation and the implementation of advanced tools, if we don't learn to fully harness the potential of a budding pool of talent?

This is where TVET can come in. As a very real and potentially promising tool enabling accessibility, knowledge, practical skillsets and career-related strength to those who need it the most.

Similarly, to keep local industries, markets and businesses competitive, a healthy supply of skilled workers should be available to meet the demands of the fourth industrial revolution.

Technical and Vocational Education and Training (TVET) institutions should be viewed as crucial players in helping to drive this.

Among the many initiatives involved, a strengthening of skillsets among students delving into careers in engineering, IT, culinary arts and even mechatronics is relevant.

In fact, an extensive array of jobs associated with the development of Industry 4.0 are covered in many TVET programs. For instance, the Internet of Things involves a network of components that require individuals with expert knowledge in systems, machines, software and hardware.

We can also expect that the digitisation of manufacturing will also lead to a rise in demand for very specific skillsets that might only be harnessed via training capabilities found in TVET.

Better, smarter solutions

As Industry 4.0 unfolds, machine learning and automation could finally bring us computerised systems that are able to make decisions without any human involvement at all.

You can expect these systems, along with the development of IoT, to give way to smart factories and smart machines that are able to access data, produce less wastage, design better processes and operate much more efficiently.

However, an incredible amount of work must be done before any of these structural enhancements are made. People, in turn, should be supported by the right educational systems.

Germany is a great example of how a vocational training model can result in increased productivity and progress towards Industry 4.0. The nation's efforts have led to decreased unemployment rates.

This doesn't just let the nation possibly harness a highly trained talent pool. It can also help the economy meet new demands as times change.

Malaysia's current TVET efforts can be further amplified, and the country's talent pool can be optimized for better economic productivity. However, it may take a shift in mindset, a shift in support and a shift from the conventional approach to education.

My focus is in digital transformation mainly in five core areas in the new digital economy: Industrial Internet of Things (IIoT) | Drone Technology | Customer Experience (CX) | Data Analytics for Business Solutions. My businesses focus on the development of specialised talent for the digital economy.

My foundation lies in TVET (Technical Education and Vocational Training). Founded in 1999, the five technical and vocational colleges I built provide job-specific training and alternative education options for those not on the tertiary education route. A premier TVET institution across Asia, our service encompasses a broader preparation of the student,

developing academic and technical skills and providing solutions from enrollment to employment.

Industry skills for the digital economy - As traditional skills are yet to be supplanted yet require reinforcement, I'm working to enhance our national workforce with skillsets that future proof them.

Talent for drone technology – I'm spearheading an initiative to create talents ranging from drone field applications to drone data services. TVET talent – I'm working to ensure our technical workforce is armed with the right combination of skillsets that increase their relevance tomorrow.