

Workforce Realignment : Same Book, Different Page

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Industry 4.0 still remained a buzzword in Asian countries even though it has lingered around for several years. This tells us that most industries in Asia are scared to make the commitment or simply ignoring the reality.

Whichever the reason, whether the former or latter, industry 4.0 will still make its way into the world and anyone that is not prepared will be swept away in its wave. Rather than waiting on the shore for the storm, better set sail and adjust to the change on the way.

Nevertheless, preparations should be made before leaving the harbor. The initial preparations have been mentioned in the first two articles; *Industrie 4.0: The Lean Way* and *Stairway to 4.0: The SMEs Tale*.

The former tells about the needs to change the way management is doing things while the latter is on having the right tools and attitude focusing on insight on SMEs in Malaysia. After both aspects have been strengthened, the next preparation will be the realignment of workers.

It is no secret that many industries suffered from the lack of skilled workers to manage 4.0-based technology.

Such reason, however, cannot be a justification to shy away from 4.0. The waiting game is over and a full-blown action needs to be taken.

Based on World Economic Forum (2016), enrolment in social sciences, business and laws are more prominent than enrolment in subjects that is critical to master technology such as engineering and sciences in several ASEAN countries.

The fact that the transition of education to cater to the needs of industry 4.0 is slow, means that industry leaders need to take the matter into their own hands and invested in current talent to move the country forward with 4.0.

Though hiring a foreign skilled worker can be considered a good step, it is a double-edged sword in the long run. Thus, training local talent is vital to ensure the success of the move.

Since most operational tasks will be replaced by machines in 4.0, operational workers were no longer a necessity in the organisation but technical workers are. The current operational workforce should be up-skilled to be the elites among the elite to handle the complicated technology and processes in 4.0.

Local talent or high-skilled foreign workers

Business should sustain and train local talent to be critical and creative thinkers that can take the role of management in the company. Employing foreign workers are no doubt more enticing than local talent due to their level of competency in managing technology.

But, there are downsides to it. The first is that foreign workers are less likely to stay in the business for a long period. They might leave the company after several years or maybe less than a year compared to local talent who are more likely to stay with the company thus contribute more to the well-being of the business.

There is a sense of attachment to one's own country for each individual and this stays true even in today's complicated world. So, if somehow foreign workers are required to went back to help their own country's economy, the business will need to replace them with another. Instead of replacing the inevitable, why not train the available talent.

High-skilled foreign workers are like the pearl in the depth of the ocean. They are hard to find and harder to keep. The cost

10 Effects of Industry 4.0 on the Workforce

	Big-Data-Driven Quality Control Algorithms based on historical data identify quality issues and reduce product failures		Predictive Maintenance Remote monitoring of equipment permits repair prior to breakdown
	Robot-Assisted Production Flexible, humanoid robots perform other operations such as assembly and packaging		Machines As a Service Manufacturers sell a service, including maintenance, rather than a machine
	Self-Driving Logistics Vehicles Fully automated transportation systems navigate intelligently within the factory		Self-Organizing Production Automatically coordinated machines optimize their utilization and output
	Production Line Simulation Novel software enables assembly line simulation and optimization		Additive Manufacturing of Complex Parts 3-D printers create complex parts in one step, making assembly redundant
	Smart Supply Network Monitoring of an entire supply network allows for better supply decisions		Augmented Work, Maintenance, and Service Fourth dimension facilitates operating guidance, remote assistance, and documentation

Source : BCG Analysis—<https://www.bcg.com/industries/engineered-products-infrastructure/man-machine-industry-4.0.aspx>

of employing foreign workers will undoubtedly be higher than local talent.

Though local talent skills might not be on the same level as foreign workers due to the lack of exposure to advanced technology and low level of ICT, with the correct training, they can also make high-skilled foreign workers run for their money.

The cost of maintaining technology will also reduce when employing local talent. If local talents were trained on the know-how of the technology, they will be able to not only use the technology to its optimal but also maintain the condition of technology for long-term use.

Employing external contractors for the upkeep of machine will be comparatively lower than training local talent if the machine is needed for a short period only but, for a long period, it is actually the opposite.

Between the need of paying several thousand every time the machine needs maintenance, to the reliance on available workforce who can keep the machine to its optimal, which is more profitable is clear. Loyalty cannot be bought and skills can be trained.

Continuity, reliability and capacity

The skill that workers in the surge of Industry 4.0 need is technology management. Workers should not just be technology user but also technology innovator.

Only workers who have worked long enough in the company understand the ins and outs of the business process. This is critical for technology is only a tool to ease the business process and not

a total replacement of it. Thus, improvement of technology is needed and changes are expected.

Technology that can cater to the needs of an organisation and simplify business operation is more important than advanced technology that might complicate it. So, the up-skilling of workers should contain three different aspects; the know-how, the maintenance and the improvement.

Current workforce in the organisation should be equipped with the know-how of the emerging technology so they can make a critical analysis of the capacity and reliability of the machine to the needs of the organisation.

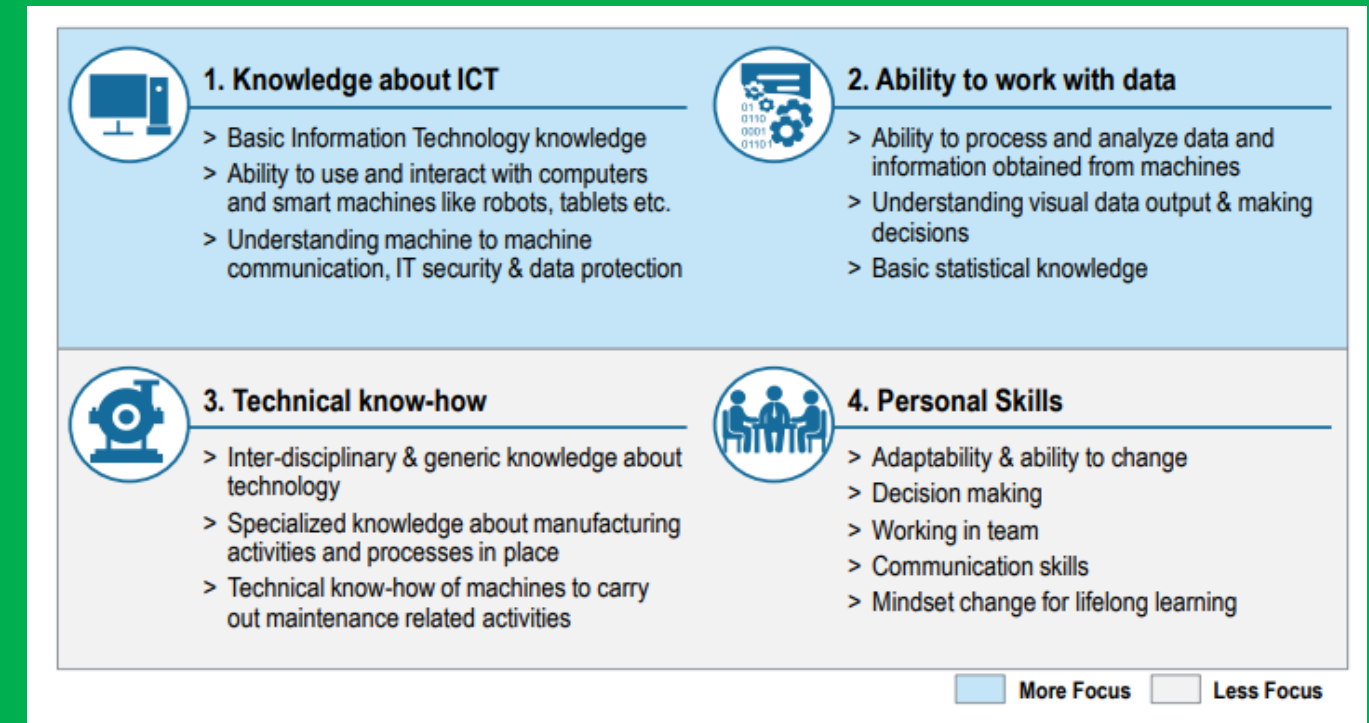
Know-how includes everything from the theory down to the practical application of the technology. After the know-how has been embedded in their soul, naturally they will be able to maintain the condition of the technology and optimise its potential.

In-house maintenance undoubtedly is a cost-saving approach for sustainment of technology for a long-term compared to employing external contractors. On the other hand, improvement of the technology will save the cost of R&D in the organisation.

To ensure improvement of the technology, workers need to be well-equipped with the creative and critical thinking skills. Technology costs a lot of money to acquire and maintain but if it does not serve its function properly then it will not make any difference. Hence, a technology that serves both its function and the organisation's needs is a gem.

If workers were trained diligently in this aspect, certainly they will come up with a new innovation that is custom-made for that organisation. All of these three aspects, if successfully applied, will undeniably ensure the continuity, reliability and capacity of the technology.

Important Qualifications & Skills for Industry 4.0



Characteristics of a Good Vocational, Education & Training System

