NAVIGATING THE 4TH INDUSTRIAL REVOLUTION

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Upholding Standards for Nationwide Advancement



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OUR EVENT SERIES:



If your ship doesn't come in, swim out to meet it!" — Jonathan Winters

HE Fourth Industrial Revolution has been ruminated and debated on for months now yet there's still the proverbial elephant that is often avoided – is Malaysia truly doing enough? How do we know where we stand in the global arena, with neighbouring countries closely scrutinising us? There is much to do before we can achieve the future that we have envisaged.

Are we truly ready for the Fourth when there are still companies, pegged "laggards" still struggling with the ways of the past? How do we move forward as a cohesive whole for the betterment of the nation? We delve into these topics and more in the Fourth Leap series. In this issue, we have recommendations from a contributor who has the nation's development and progress at heart. Another writer explores the importance of data analytics and on a separate page, the issue of security is investigated in the age where data matters big time.

Ultimately, the adoption of new technologies is to increase productivity, efficiency and improve the lives of all. Here, we take a gander at blockchain and its applications in the social sphere and how farmers can utilise blockchain applications to tokenise their seeds for financing and liquidity.

The rallying call to welcome this tidal wave of change is not new but an echo as experts have anticipated the arrival of the 4IR. This era of change was first addressed in 2016, during the 25th World Economic Forum on ASEAN held in Kuala Lumpur. Going further back, the term "Fourth Industrial Revolution" was coined by Professor Klaus Schwab and sees the potential of emerging technologies to define a new reality, one that would be deemed "science fiction" just a decade ago.

With this wave of change, comes new responsibilities to one another and many more opportunities for self-realisation. In essence, the way we engage with the 4IR technologies would define and shape our world, whether positively or negatively. How do we maintain a canvas of control when technology seems to take flight by leaps and bounds, faster than our morality can evolve?

This is the ambit we, the team behind the Fourth Leap, hope to present in a clear and coherent manner.

Stay with us as we venture into the year 2020. We will work to improve the magazine for the benefit of our readers and address issues and challenges that our nation faces without reservation. Thank you and enjoy.

- Sritharan Vellasamy (sri@wordlabs.com.my)



DEFYING ODDS: UPHOLDING STANDARDS FOR NATIONWIDE ADVANCEMENT

FOURTH LEAP'S JAMIE AXEL HAS A CONVERSATION WITH DATUK FADILAH BAHARIN, DIRECTOR GENERAL OF STANDARDS MALAYSIA ON UPHILL BATTLES, SMALL VICTORIES AND MAJOR TRIUMPHS IN A BID TO ENCOURAGE NATIONWIDE STANDARDS COMPLIANCE.

TANDARDS Malaysia is a National Standards and Accreditation Body under the purview of the Ministry of International Trade and Industry (MITI) to produce Malaysian Standards (MS) as guidelines and specifications for industrial compliance. This is to ensure safe, secure, reliable and quality products and services for the market.

While Standards Malaysia is non-regulatory, they work in tandem with regulators to smoothly facilitate and enforce the implementation of the Malaysian Standards for global competitiveness. Generally, their goal is to advance the national economy; benefit the health, safety and welfare of the public; protect consumers; promote industrial efficiency and development; facilitate domestic and international trade and further international cooperation.



Within the ASEAN region, Standards Malaysia stands as part of the ASEAN Consultative Committee for Standards and Quality (ACCSQ) to harmonise standards and regulatory regimes apart from establishing Mutual Recognition Agreements among ASEAN member states. This translates to the reduction of transaction costs and facilitate trade and movement of goods between ASEAN countries. Generally, countries within the ASEAN Free Trade Area (AFTA) stand to benefit as standards ensure that the products traded are of quality and competitive.

NO WALK IN THE PARK

Datuk Fadilah Baharin radiated wisdom and enthusiasm, beaming as it was a special day – the World Standards Day 2019, on October 14, holds a special place in her heart. It commemorates all that she and her team had strived for throughout her years. Now, with more than 5,000 standards available across 25 sectors, she reminisces about the challenges she faced when she was first appointed into her role.





Business leaders should be visionaries and anticipate change in order to guide their organisations in the right direction.

While import-export businesses understand the importance of adopting standards, the uphill battle comes in dealing with the Small Medium-sized Enterprises (SMEs). "This journey is a journey of listening. SMEs are subjected under the constant pressures of bottom lines and economies of scale and one has to learn to speak their language," shared Fadilah.

"People are resistant to change and naturally gravitate towards instant gratification and rewards," she said. "SMEs need to know that standards can help them establish required processes and best practices to increase productivity through better utilisation of those processes."

As she reaches the zenith of her career, things seem to fall into place seamlessly. Yet this wasn't the case in the beginning. Another seemingly insurmountable challenge was to get everyone on board at the very beginning, with one heart and one mind. Scepticism did not just stem from enterprises but also festered within regulatory bodies. Now, however, she thanks all 16

BARRIERS TO STANDARDS COMPLIANCE

A study conducted by the National Standards Compliance Programme (NSCP) in 2014 asserted that SMEs failed to comply to standards because:

35%



lack resources – the financial and human resources to manage standar compliance



22% found it challenging to maintain certification and standards compliance



13% perceive it as less consequential in the face of other business processes regulators that work collaboratively to ensure safe and quality products and services are delivered.

These regulators are the Federal Agricultural Marketing Authority (FAMA), Medical Device Authority (MDA), Malaysian Palm Oil Board (MPOB), Malaysian Cocoa Board (LKM), Ministry Of Domestic Trade And Consumer Affairs (KPDNHEP), National Water Services Commission (SPAN), Construction Industry Development Board (CIDB), Local Government Department, Federal Department of Town and Country Planning (PLANMalaysia), Fire and Rescue Department of Malaysia (BOMBA), Malaysian Communications and Multimedia Commission (MCMC), Department of Occupational Śafety and Health (DOSH), Energy Commission (ST), Department of Environment (JAS), Road Transport Department Malaysia (JPJ) and Food Safety and Quality Division, Ministry of Health.

LONG TERM BENEFITS TO ACCREDITATION

In order for businesses to differentiate themselves from their competitors, it is important to have standards and certifications not only as proof of reliable and quality products and services, but also to broaden market access, increase efficiency and meet customer and regulatory requirements.

Standards enhances

A collaborative study done in 2012 by the United Nations Industrial Development Organization (UNIDO), International Organization for Standardization (ISO) and the International Accreditation Forum (IAF), proved that the implementation of accredited certification to ISO 9001 benefited not just the certified organisations but also their customers and economies. An ISO 9001 supplier is viewed in a positive light by customers and generally said to be "much better than non-certified suppliers".

Furthermore, the Government also offers many tax incentives in the form of tax deductions for Assessment Fee, Annual Fee and other fees imposed by the Certification Bodies (CBs). Certified organisations are also entitled to double tax deduction.

The Fourth Industrial Revolution (4IR) brings about changes that are unprecedented. SMEs need to be aware that standards act as a guarantee that products are functional and compatible, prioritising interoperability to facilitate businesses and support consumer safety in the 4IR.

Standards also provide baseline information on current technologies and developments related to a particular subject matter that can support and enhance the implementation of 4IR. Furthermore, it serves as an important tool for components and systems to recognise and communicate with each other as it narrates the required technical requirements and definitions to enable connectivity and interoperability.

STANDARDS IMPLEMENTED FOR 4IR READINESS

MS ISO 27001 Information Security Management Systems (Information Security)

- Provides best practices to data protection, sharing and connectivity
- As a certifiable standards and most widely used for information security globally

On Feb 2010, the cabinet decided that Critical National Information Infrastructure (CNII) entities of Malaysia be certified under MS ISO/IEC 27001

ISO 20022 Financial Services Universal Financial Industry Message Scheme (Message transport system for real-time payment)

- Widely used to facilitate financial transactions
- PayNet Network Malaysia uses ISO 20022 for real-time payment platform to enhance interoperability and alignment with global practices

Bank Negara Malaysia (BNM) is PayNet's single largest shareholder, with eleven Malaysian's financial institutions





A LEGACY TO BE REMEMBERED

The tour de force of Fadilah's career was pioneering the MS 1500:2009 – Halal Food, the nation's first halal standard which is currently implemented worldwide. The Arabic word Halal essentially means "as permitted by Islamic Law" and is generally associated with food.

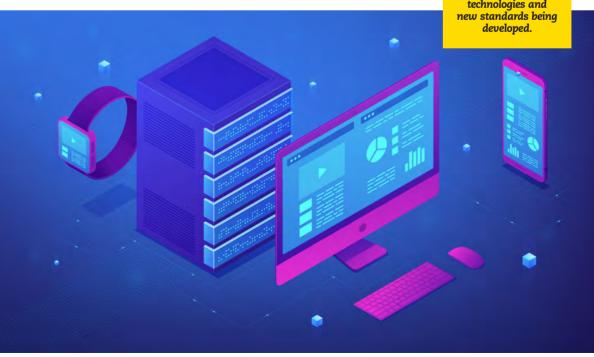
However, the certification is now much sought-after be it in food and beverage (F&B) products; F&B premises; consumer goods such as cosmetics; logistics; packaging; medical devices and more, in accordance to Islamic Law. The halal logo is now synonymous to hygiene, quality and safety in the minds of consumers.

"

I want all of us to continue the dialogue on sustainability – I want our voices to be heard and for us to be receptive to change."



The Fourth Industrial Revolution sees the advent of emerging technologies and new standards being developed.



Halal certifications are not just limited to food and beverages but also pharmaceuticals and cosmetics.

The standard is used and represented by the Department of Islamic Development Malaysia (JAKIM) as one of the five government initiatives to realise the establishment of Malaysia as the center of halal food.

"From the business perspective, this certification gives external stakeholders the assurance that your product is halal and Syariah compliant. Furthermore, it provides you with an advantage as the certification is respected and well accepted not just in Muslim countries but also in other parts of the world," said Fadilah.

MOVING FORWARD AS A COHESIVE WHOLE

"As we secure a seat in the ISO council amongst 20 other countries including the US, the UK, France, Germany and more, I realised that we have much to show. We have enough to make an impact and we are respected. I want all of us to continue the dialogue on sustainability – I want our voices to be heard and to be receptive to change," said Fadilah.

She stressed that dependence on government initiatives should be a thing of the past, hoping that all companies espouse a proactive and introspective approach to remain competitive and future-ready. The launch of the Industry4WRD National Policy should become an impetus of change and motivate all stakeholders to move forward collectively. Lastly, she wants all to remember that "Ada standard, untung!" which means adoption of standards will only translate into value for your company.

WHAT'S THE DIFFERENCE?

WHILE used interchangeably, the terms Fourth Industrial Revolution and Industry 4.0 denotes two concepts that only partially overlap. Both are used to refer to the advent of disruptive technology and industry maturity in dealing with the disruption, yet there are notable differences. Let us take a closer look:

FOURTH INDUSTRIAL REVOLUTION (4IR) OR INDUSTRIAL REVOLUTION 4.0 (IR4.0)

The term was coined by Professor Klaus Schwab of the World Economic Forum, dating back some 50 years ago! While the technologies highlighted by this industrial revolution are not new (i.e. Artificial Intelligence, 3D printing, usage of sensors, etc), the narrative lies in the depth and breadth of implementation and the convergence of the physical, digital and biological in all aspects of our lives.

INDUSTRY 4.0 (I4.0)

This second term however, presents the shift of the manufacturing industry towards optimisation and smarter utilisation of existing technology. The terminology originated from the German Industrie 4.0 strategy, which discussed the digitalisation, networking, knowledge intensification and trust building between clients, suppliers and internal processes. While Industry 3.0 brought the disruptive computerisation into the mix, Industry 4.0 optimises computerisation to communicate amongst each other – a combination of cyber-physical systems – process data and make decisions without human intervention.

IN SUMMARY

IR4.0 can be broadly defined to cover all verticals whereas I4.0 is manufacturing-focused. Both are said to focus on technological development, expand capabilities and leverage opportunities to cultivate a workplace, society and community that is healthier and more contented.

BIOGRAPHY

Datuk Fadilah Baharin is the Director-General for the Department of Standards Malaysia. One of the earliest scientists in her field, she was made a Fellow of the Science Academy of Malavsia in 2013 and became the first woman to represent Malaysia at the High Council of the International Organization for Standardization. She plays a crucial role in advocating for standards in the local and global arena, while address ing the international standardisation council as a proud Malaysian. She is a natural born <u>leader wh</u>o overcomes obstacles with integrity and zeal, prioritising good governance, national development, and the wellbeing of her team and others.



BLOCKCHAIN & SOCIAL EMPOWERMENT



HE application of blockchain technology in supply chains is growing due to the transparency and accuracy of the tool in data tracking and monitoring transactions between multiple parties. Blockchain is also relevant in empowering disadvantaged communities, especially in societies seeking social fairness and access.

Commonly thought of as a digital and decentralised ledger that records all transactions in a supply chain, blockchain is often associated with digital currency or tokens. Every time someone buys a good or service with tokens, a ledger records that transaction. The "blocks" are hence digital pieces of information that store information about the transactions like the participant, date, time and dollar value, using a unique code called a "hash" to distinguish the different blocks of information. Blockchain hence offers a much faster processing time than traditional transaction processes.

But blockchain has far wider potential than just facilitating online transactions. It has the ability to transform lives in the developing world. The World Bank defines poverty as living on less than US \$1.90 per person per day; and it is estimated that there are about 1.3 billion people that fall under this category in the world, roughly over a fifth of the total global population.





greater potential than just facilitating online transactions.

The lack of digital capacity is no longer a limiting factor as anyone with a smartphone can use blockchain applications.



Causes of poverty are often due to economic circumstances, lack of opportunity and low levels of development. Blockchain may be able to change this.

SECURING TRUST

The poor are typically disconnected from banking and credit facilities. In less developed countries, people may not even have any form of documentation, which means that they cannot prove their identity or title to a property, and cannot access basic services. Recognising this problem, blockchain offers the means to use digital tokens as the best means for the poor to pay their bills or to secure microloans to buy goods to enrich the quality of their lives.

Blockchain's decentralised nature assists microfinance institutions in removing the need for mediators or trust authorities. The use of blockchain furthermore helps people in trusting each other rather than centralised institutions to obtain loans. With blockchain microfinance, small businesses and farmers can access loans by having a digital identity with efficient payment of loans made possible through smart contracts based on appropriate terms and conditions specified for repayment.

Farmers are able to "tokenise" seeds in storage for financing and liquidities.

Shanzhai City (SZC), a Hong Kong-based organisation, has created a platform on Impact Oxygen Protocol for communities to build their own capacity in financial and data literacy instead of having to turn to external aid or intervention. This enables communities to foster local informal economies in a decentralised environment through social finance solutions that are linked to impact measurement and consensus-based outcomes as a result of financing. In addition, SZC has created a toolkit to fit different types of needs and scales for capital deployment within the poor. The ultimate goal is to allow communities to form their own

development finance organisation (either as centralised or decentralised or a hybrid), according to local economic situations or cultural values that have their own unique systems of trust.

Selected by the World Food Program in their incubation program, and in partnership with Bolavan Farms, a sustainable agriculture social enterprise in Laos, and GrainPro, a low-tech seed storage solution company, SZC designs a "Decentralised Seed Bank" solution with 20 plus village cooperatives in Laos to tokenise seeds in storage for financing and liquidities. Although most farmers practice seed storage in their households or village communal spaces, they have been unable to leverage these seeds as valuable assets that can become collateral for financing. With blockchain, building on existing practices of seed storage in the villages, the farmers have been able to turn the 'banked seeds' in communal storage space into tokens, which can allow seed owners to utilise these tokenised assets for financing, e.g. collateral for lending and borrowing.

Blockchain can be used to protect workers' contract terms, verify salaries and avoid debt bondage."



PROTECTING LABOUR RIGHTS

Another role where blockchain is making a social impact is in labour rights. Estimates of the number of people in debt bondage, coerced labour or being trafficked is around 42 million worldwide. A large proportion of these "modern slaves" is in Asia, particularly in the agriculture and fishery industries, where migrant workers are involved. Blockchain can be used to protect workers' contract terms, verify salaries and avoid debt bondage (caused by workers paying agencies large sums of money to secure jobs overseas). In labour supply chains, many parties are involved including brokers, employment agencies, operators, NGOs and major brands, all of whom are seeking access to information and asking themselves, "How do I know what I am looking at is the same as what the worker agreed to?"

The Mekong Club, an NGO focused on modern slavery in private sector supply chains, has been piloting the use of blockchain with its partner technology company, Diginex. Both the Mekong Club and Diginex believe that there are large factions of identifiable migrant workers whose contracts could be stored on blockchain. Backed by major brands who are concerned about labour abuse in their supply chains, blockchain technology can help companies and government fight modern slavery.

The effectiveness of blockchain is often questioned by many due to the lack of digital capacity in the poor to adopt this technology. Diginex points out that many workers, regardless of status, possess a mobile phone and can use this for blockchain applications if it is shown to be an effective way of self-protection. The company is currently working with migrant workers in aquaculture in Thailand, the F&B sector in the Middle East and the plastic industry in Malaysia, to prove this point.

Despite the evidence that blockchain can resolve many social problems, governments and companies are reluctant to adopt this technology. This is due to legacy systems and the resistance to change them. However, blockchain has the potential to be a powerful innovator in social good. From a supply chain perspective, it not only makes the information robust and transparent but also makes the transaction process more efficient. The key to success is scale and adoption. The technology is ready to use, but to sell the idea, it has to be framed in terms of the huge benefits that employers, as well as workers, will receive, making the world a better and more sustainable place ultimately for all.

Dr Thomas S. K. Tang is currently an Advisor for Atlas Industries (Vietnam) Ltd and also the Sustainability Advisor for The Purpose Business.

> Blockchain can bridge the gap of trust between people rather than depending on a centralised institution.

4IR: SHAPING AND DEFINING NEW ROLES FOR THE GOVERNMENT



By **Sheriffah Noor Khamseah Al-Idid**

INDUSTRIE 4.0 FOCUSED ON MANUFACTURING AND SMART FACTORIES.

FOURTH

N April 2011, the world's largest industrial fair held in Germany, Hannover Messe Industrie (HMI) Fair, saw the conceptualisation of a new terminology, Industrie 4.0¹ which was announced by Professor Wolfgang Wahlster, Director and CEO of the German Research Center for Artificial Intelligence.

Centered on manufacturing, it encompasses the usage of cyberphysical systems and Internet of Things, following automation in production to birth "smart factories".² It stands as one of 10 "future projects" identified by the German government as part of its High-Tech Strategy 2020 Action Plan.³

Industrie 4.0, or Industry 4.0 (I4.0), a national strategic initiative pursued over a 10 to 15-year period, aims to propel digital manufacturing by increasing digitisation and the interconnection of products, value chains and business models. It aims to support research, the networking of industry partners and standardisation.¹



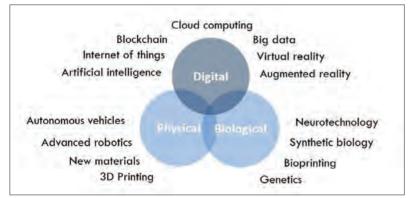
¹ Wahlster: US, Germany Must Combine Strengths to Deliver Products to World September 19, 2016 by Brett Brune - Editor in Chief, Smart Manufacturing



FIG 1: THE DAWN OF THE FOURTH INDUSTRIAL REVOLUTION

Source: shockoe

FIG 2: THE CYBER-PHYSICAL WORLD



Source: John Grill Centre for Project Leadership and Silicon Valley Innovation Center

Although Wahlster publicly introduced the term in April 2011, at the HMI, it did not catch on until 2012. "Then the revolution started like a rocket."¹

WORLD ECONOMIC FORUM 2016, SETTING THE STAGE FOR FOURTH INDUSTRIAL REVOLUTION (4IR)

The Davos summit in 2016 set the stage for the introduction of a new term "Fourth Industrial Revolution" by Klaus Schwab, Founder and Executive Chairman of the World Economic Forum.

In contrast to Industrie 4.0 coined by the Germans which focussed on advancing the nation's manufacturing sector, the Fourth Industrial Revolution (4IR) describes the dawn of a new era (see Fig 1) resulting from new technologies, the fusion of the physical, digital and biological spheres (see Fig 2) envisaged to impact and disrupt industries, education, jobs, government, society and economies.

Like the industrial revolutions before it, 4IR (see Fig 2) offers great opportunities and excitement as well as grave concerns and challenges.

> Without a proper business model, innovations in the Fourth Industrial Revolution cannot be fuelled and cannot grow further.



² Regulation for the Fourth Industrial Revolution, UK Government, 11 June 2019

³ The Fourth Industrial Revolution: Shaping A New Era, Thomas Philbeck and Nicholas Davis, Columbia, SIPA, Journal of International Affairs; Jan 22, 2019

FIG 3: TECHNOLOGY ADVANCES IN GOVERNANCE

KEY CHALLENGES	KEY OPPORTUNITIES
Policy making around evolving technologies	Increased efficiency of public services
Ethical concerns	Data-driven decision making
Inequalities and access	Productivity improvements from automation
Unemployment caused by automation	Increased collaboration between governments and citizens

Source: How will the Fourth Industrial Revolution Transform How We Govern? Arvind Satyam December 18, 2018, CISCO Blogs

The 4IR is of a scale, speed and complexity that is unprecedented.² As we are still at the threshold of the 4IR, the norms, standards, infrastructure, regulations, and business models that will define the future are still emerging. Such critical decisions about the future of our economies, political systems, and societies must be deliberated and shared by a wide range of responsible stakeholders, including governments, industries, and interest groups.³

4IR - A NEW DEAL FOR GOVERNMENTS

A. GOVERNANCE AND POLICY MAKING

The sheer speed of innovation and rapid adoption of new technologies unleashed by 4IR is disrupting traditional models of governance and changing how the Government works, policies and regulations are formulated. This ultimately poses a significant challenge for governments, in view that, as Former US Secretary of State Madeleine Albright has observed, as Government are tasked with understanding and responding to the range of 21st Century Challenges, armed with 20th Century Mindset and 19th Century Institutions.

Thus, it is imperative that today's governments must evolve and transform to be agile to remain relevant and effective by addressing the challenges and harnessing the opportunities offered by 4IR (see Fig 3).

The WEF dovetails that the concept of agile government aims to shift the manner in which policies are being generated, deliberated, enacted and enforced in the 4IR; requiring a mindset change of policy makers, opening up policy work to truly innovative ideas and using new approaches; with each actors in the innovation system being involved in the process; not as providers of feedback but as co-designers of the outcome.

The WEF, which is launching a Global Initiative on Agile Governance dedicated to reimagining policy making for the 4IR defines the concept of Agile Governance as "adaptive, human-centred, inclusive and sustainable policy making, which acknowledges that policy development is no longer limited to Governments but rather is an

To fully harness the potentials and benefits of 4IR, the government must reimagine and redesign the way traditional governance is managed..."

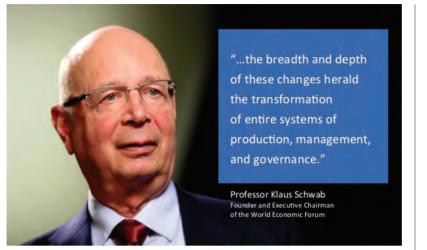
increasingly multi-stakeholder effort."

Thus, to fully harness the potentials and benefits of 4IR, the Government must reimagine and redesign the way traditional Governance is managed and – amongst others – partner with businesses, citizens and civil society to share the governing of emerging technologies through establishing Innovation Labs, Policy Labs and Regulatory Sandboxes to offer space and platform for experimentation.

FIG 4: A TOOLBOX FOR AGILE GOVERNANCE



⁴ How will the Fourth Industrial Revolution Transform How We Govern? Arvind Satyam December 18, 2018, CISCO Blogs



Source: How will the Fourth Industrial Revolution Impact HR and Learning Development in the Future? Chief Learning Officer (CLO) Webinar

In the Malaysian context for multi-stakeholder engagement in policy formulation, the Ministry of International Trade and Industry (MITI) has launched a National Policy on Industry 4.0 referred as Industry4WRD with the thrust of ACT (Attract, Create and Transform) with stakeholders across several ministries and guided by five Technical Working Groups covering FIRST (F-Funding, I- Infrastructure, R-Regulation, S-Skills and Talents and T-Technology whilst the Minister of Multimedia and Communications, YB Gobind Singh Deo had recently launched a Malaysian Innovation Policy Committee (MIPC) established last September to serve as a platform for the private sector to propose digital tech initiatives that come with policy and regulatory challenges that hinder innovation and digital economic growth for the country.

MIPC comprises two committees – the Industry Coordination Committee that covers matters relating to industry collaboration pertaining to Digital Tech initiatives while the Intervention Committee focuses only on the policy and regulatory intervention.

 Recommendations for Malaysia

 Incorporate additional factors for consideration by Technical Working Group
 I would like to propose that

I would like to propose that whilst still maintaining the acronym FIRST, additional factors could be considered by the Technical Working Group such as I to include Innovation, IPR, S to include Standards, Safety and Society as these factors are fundamental for Malaysia to embrace 4IR effectively.

 Recommendations for Malaysia

 Set up Innovation or Policy Lab to test new innovative ways for policy making in the era of 4IR A number of countries have established Innovation or Policy Labs to engage Government, private sector and citizens to discuss and offer new approaches or alternative solutions for governance and policy making; including MindLab in Denmark in 2002, EU Policy Lab.

Malaysia could Initiate an Innovation or Policy Lab on public services developed by the Office of the Chief Secretary to the Government (KSN), the Office of the Director-General of Public Services (JPA) or the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) with members from both public and private sector a whilst MESTECC could establish an Innovation or a Policy Lab to develop Science, Technology and Innovation (STI) Policy in tandem with the requirements of the 4IR.

3. Recommendations for Malaysia – Restructure and rename Malaysia Innovation Policy Committee (MIPC)

Although this Committee is established short of two years, I would like to propose to YB Gobind for the MIPC to be restructured and renamed Malaysia Innovation Council or Committee (MIC) to not limit the Committee's purview to just policy and regulation but to expand its mission and business to cover a broader scope including education, R&D, Standards, financing and Industry amongst others which are equally critical factors to promote and advance innovation.

Then under this Committee, set up selected sub committees to review and recommend new or enhanced policies, regulations, standards, education, financing that are critical to support the growth of start-ups in the new emerging technologies including AI and Drone Technologies.

B. REGULATIONS AND LEGISLATIONS TO SUPPORT AND NOT STIFLE INNOVATION

How Governance is changing in the 4IR by Nima Elmi and Nicholas Davis of World Economic Forum, 18 January 2018 articulated that it is not just the adoption or regulation of technologies that are affecting governments.

As new technologies heralds new business models, new organisations, new products and services, Government must be agile to help regulators and legislators continuously adapt to a fast changing business, economic and social environment, without stifling innovation.⁵

The importance of a business model will be more crucial in the era of 4IR because the basic character of the revolution is new combinations of technology and markets.⁶ Because without a proper business model, innovations in the Fourth Industrial Revolution cannot be fuelled and cannot grow further.

Inadvertently, new roles for policy makers are emerging, requiring a better balance between the need for safety and precaution with opportunities for the private sector to test new creations.

Some countries have created regulatory test-beds and sandboxes where regulations can be tested in different regulatory context. A case in point The Government of Sweden's policy for autonomous vehicle testing in Gothenburg and encouraging self-regulation through open source innovation associations like Partnership in AI, a technology industry consortium focused on establishing best practices for artificial intelligence systems.

⁵ The 4Ir is here. Do we need to design development initiatives differently? Arnaldo Pellini and Vanesa Weyrauch, Politics & Ideas
⁶ How to Respond to the Fourth Industrial Revolution, or the Second Information Technology Revolution? Dynamic New Combinations between Technology, Market, and Society through Open Innovation (Lee, Yun, et. al.) Received: 3 April 2018; Accepted: 4 June 2018; Published: 21 June 2018



had attended a number of Technologies of 4IR Conferences and Workshop, including My DroneX Workshop in Cyberjaya

A National Regulatory Sandbox has been established by the Ministry of Finance to create opportunities to further develop, accelerate and promote collaboration between entrepreneurs, corporations, regulators and the government to enable innovators to test ideas, solutions and products in a real environment with sandboxes identified for selected industries. 1. Recommendations for Malaysia – Initiate an annual 4IR dialogue with the industry

I had the opportunity to attend a few Conferences and Workshops on AI and Drone Technology and had the privilege to join industry discussions and was surprised to hear on several occasions that industry felt that regulation of Drone technology could be further enhanced by the Government to support instead of stifling the growth of this tech-based business.

Thus in addition to the Sub Committees of the MIC, it would be beneficial and impactful to initiate an annual or bi-annual 4IR Dialogue with Industry to gain direct feedback directly from industry for Government and policy makers and regulators to support innovation and fastrack 4IR for Malaysia.

2. Recommendations for Malaysia- Establish Sandboxes for Regulation of technologies of 4IR As new approaches in regulation of technologies of 4IR is pertinent to move in tandem with rapid technological innovation, MCMC could in addition to, or instead of, conducting discussions on regulating technologies of 4IR at the Malaysian Innovation Council, including drone technology, artificial intelligence, amongst other technologies, create sandboxes for regulation of these technologies (see Fig 5).

C. EDUCATION, SKILLS AND COMPETENCY

Governments will need to strengthen leadership and develop human capital so that they are able to govern the technological transformation in a way that leaves no one behind.

Additionally, governments must cultivate a full understanding of the future, knowing what the opportunities and risks ahead are, as well as what their applications would be to the world, to individual countries, and to the specific workings of government. Governments also need to be smart when scanning the horizon; the advent of 4IR adds to the pressure on governments to become future-savvy.



FIG 5: REGULATORY SANDBOXES

Source: Tsys.com

1. Recommendations for Malaysia - The government needs to make preparations to be agile and future-savvy

As only a limited number of Government officials and private sector may have the opportunity to participate in the WEF's Global Initiative on Agile Governance, these officials could be invited to share the discussions and deliberations with a larger number of civil servants at relevant briefings

And the National Institute of Public Administration (INTAN), could introduce a course on the important aspect of Agile Governance for Politicians as well as Senior and Mid-level Civil Servants. Furthermore. Futurise and MIGHT at Cyberjaya could introduce 4IR for Government courses in partnership with WEF and other collaborators.

FINANCING AND FUNDING

As emerging new technologies are paving the way for new industries, the funding and financing models will be very similar to tech ventures where different sources of financing are required at different stages of venture development, with early stage and start-ups requiring business angel and venture capital financing and crowdsourcing emerging as important new financing option.

1. Recommendations for Malaysia - Set up dedicated venture capital funds for specific 4IR



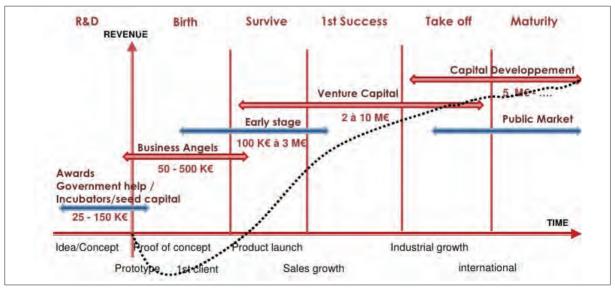
Technologies

Specific venture capital funds have been established, including MSC Venture Fund for ICT and Biotech VC fund for biotechnology. Thus, it is imperative for the Malaysian Government in partnership with national and international investors to set up specific venture funds to support 4IR technologies such as Drone Tech VC Fund and Artificial Intelligence (AI) VC Funds

MDEC which has been appointed as Member of the WEF's Drone Tech Committee and which has an AI Unit, could be the Malaysian partner to establish the specific Drone Tech VC fund and AI VC fund with international venture capitalists experienced in these technology investments.

Ariffin, Founder & CEO Aerodyne Group from Malaysia and Ms Sheriffah at My DroneX Workshop in Cyberjaya.

Sheriffah Noor Khamseah Al-Idid binti Dato' Syed Ahmad Idid, an Innovation & Nuclear Advocate and Alumna, Imperial College, University of London, United Kingdom, had served as Special Officer to Malaysia's Science Advisor to the Prime Minister and was Chairman of the Drafting Committee for Report on Enhancing Venture Capital Financing for Malaysia and the Strategist and Author of the Report on Introducing Business Angel Financing for Malaysia. These two high-tech Financing Reports were submitted to Malaysia's Ministry of Finance (MoF) in 1999 and 2001 and several recommendations outlined in these reports were incorporated into Malaysia's 10-Year Financial Sector Master Plan published by Bank Negara Malaysia.



START-UP FINANCING CYCLE

BURGE(R)ONING BUSINESS IN THE 4IR ERA

RAMLY BURGER HAS GROWN TO BECOME A HOUSEHOLD NAME, THOUGHT OF FONDLY AS A HEARTWARMING AND DELICIOUS SUPPER. WHAT STARTED OUT AS A FOOD STALL IS NOW A GIANT IN THE F&B INDUSTRY.

Ramly Food Industries' new plant at Pulau Indah.

EFORE Ramly Foods Processing Sdn Bhd (Ramly) became the behemoth it is known today, it was but a small family business helmed by

a husband-wife duo – Dato' Dr Haji Ramly Mokni and Datin Hajjah Shala Siah Abdul Manap. The company, once known as Perusahaan Burger Ramly Mokni Sdn Bhd, aims to produce Halal, hygienic and quality products, including frankfurter, nuggets, meatballs, burger patties and even sauces such as chilli and mayonnaise as well as supplying to burger stalls nationwide.

Stroll along suburban streets in Malaysia and you will likely come across the Ramly brand, selling hot, juicy burgers that can even rival well-known fast-food restaurants. Believe it or not, Ramly started out by selling burgers in the very same food stalls before expanding in 1984. The company now encompasses various processing plants, and 10 subsidiaries, becoming a billion-dollar business and pride of the nation.

PATH TO DIGITALISATION

Dato' Ramly realised the need to be flexible, fast, accurate and proactive as conventional industrialisation will not pave the way for the future. As demand for Ramly's products began to surge, the decision to digitalise processes became more relevant than ever. Furthermore, machine manufacturers in Europe at that time heralded the arrival of Industry 4.0 (I4.0) as the next wave in the industrial sector.

Dato' Dr Haji Ramly Mokni, Founder and Managing Director of Ramly Group.



Most of the industrial processes were done manually at the beginning, such as taking inventory of finished goods. This left a wide margin for human error such as missing products and expirations. The introduction of goods inventory system was meant to address this issue; however, staff training posed its own challenges as the sophisticated system was met with resistance.

robotic arms.

A workaround was to hire a new team that was not already bogged by the inertia of familiarity. The team was screened to ensure that awareness and passion for I4.0 were already present. This was the impetus that propelled further adoption of smart technologies that would eventually improve flexibility, speed, productivity and quality.

UTILISING SMART TECHNOLOGY

In a high-octane production plant, the application of autonomous robots has observed a reduction in non-skilled human capital by 90%. Ramly's mundane activities were undertaken by robotic arms, specifically in the end-line packaging, and sausage loading and unloading processes.

This frees up at least 100 workers in the packaging line and 20 workers in the loading and unloading bay to be assigned to high-value tasks. With autonomous robots, the company only require eight skilled workers to supervise the production line. Additionally, the installation of autonomous robots also decreased human error and improved customer satisfaction towards Ramly's products.

The company's production line also benefits from the Internet of Things (IoT) and reduced maintenance cost as well as machine downtime. The system works to alert the maintenance department of any errors and its precise location or scheduled routine maintenance. These translate to heightened productivity, efficiency and profitability for the company.

When it comes to maintenance, Augmented Reality (AR) acts as the key enabler for remote troubleshooting. AR overlays information and digital content in real-time on the physical world, all visible through an eyepiece. Through this technology, even engineers in their principal production plant are able to offer assistance and streamline corrective procedures.

The company adopts all these technologies to reach and maintain a maximum capacity of production, by maintaining uptime of machinery. The usage of predictive maintenance capacity to evaluate machine performance in real-time is crucial to keep up with rising demands.

LENDING A HAND

The path to digitalisation and adoption of 4IR technologies is not a lonesome journey and the Malaysian authorities have been mandated to assist through various avenues.

Malaysian Development Bank, also known as the Bank Pemban-

gunan Malaysia Berhad (BPMP), through the Ministry of Finance offers assistance via the Industry Digitalisation Transformation Fund (IDTF). The fund – an allocation of RM3.0 billion – is intended to accelerate the adoption of I4.0 related technologies in the manufacturing sector to benefit the national economy. Ramly is a recipient of the loan and it has bolstered the development of its new production plant in Pulau Indah.

IDTF offers Capital and Operational Expenditure for up to 15 years and 5 years respectively to companies that are registered and incorporated in Malaysia. Additionally, recipients of the loan will benefit from an interest subsidy of two per cent per annum, provided by the government. Any firms that offer technologies, looking to adopt technologies as part of their operations or construct infrastructure related to technology are eligible to apply.

Ramly thanks the Malaysian Digital Economy Corporation (MDEC) for their initiatives to help organisations attain their 4IR goals. Through close collaboration with MDEC, Ramly aims to realise the full potential of autonomous machinery in their Pulau Indah plant. The use of real-time custom reports and dashboards will enable the paperless collection of production data as well as allow for immediate response to performance issues.

IN THE PIPELINE

In the era of digital marketing and burgeoning eCommerce platforms, Ramly's momentum leaves them in a favourable position. The company looks to penetrate the market by launching its very own eCommerce platform to boost online sales. It looks to partner with existing online grocery platforms and sells products directly from local vendors to consumers, without the need for a middleman. It does not just stop there – the company further improves on its website functionality and user interface as it realises the importance of front-end customer engagement.

Through implementations of cyber-physical systems to monitor physical processes, leverage on data and automation, Ramly is positioned to develop a modular structure throughout its smart factories and make decentralised decisions to address issues and execute solutions without impediment.

ISLAND ESCAPE The Perfect Getaway

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Featuring traditional Malaysianstyled architecture, the 268 chalets and suites at Berjaya Tioman Resort embraces the rich tapestry of Malaysia's diverse culture. Make this cosy abode your home by the sea and rest in absolute comfort throughout your stay with us.

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Guests are guided to choose from an array of services ranging from natural treatments made with precious plant extracts from our very own spice garden to heavenly massages and luxurious pedicure and manicure. Soothe aching muscles and renew dull skin through complete nourishment from head to toe, blending age-old traditions and indigenous essential oils to induce a deep state of relaxation – a pampering experience indeed!

Offering a range of outlets to choose from, mealtimes are always a delight at Berjaya Tioman Resort. You are spoilt for choice as the resort serves an eclectic mix of local and international delicacies, ranging from authentic Malaysian, Thai, Oriental to Western flavours. Hearty meals are also accompanied by cocktails and other scrumptious snacks and beverages throughout the day, ensuring you always have a drink in hand as you kick back and bask in the beautiful sunset glow.

> Berjaya Tioman Resort – Malaysia P.O. Box 4, 86807 Mersing, Johor, Malaysia Tel: + 60 (9) 419 1000 Fax: + 60 (9) 419 1718 Email: tioman.rsvn@berjayahotel.com www.berjayahotel.com

Pic 1: Clean, spacious rooms for you to rest your head after a fun-filled day.

Pic 2: Leave your worries at the door and let yourself be pampered at the Ayura Spa.

Pic 3: If adventure is what you seek, get on the ATV and explore Tioman Island or experience other beach activities that the resort has to offer.

BEYOND THE BOOM

EFFECTIVE DECISION MAKING IS CRUCIAL TO MANAGING CRISES AND HAS THE POTENTIAL TO IMPACT THE ORGANISATION AND BROADER COMMUNITY.

N a data-as-currency world, one aspect that is constantly under the spotlight is security. While utilisation of modern technology promises limitless potential, there are many causes for concern. High-profile data breaches are cropping up with alarming regularity, affecting millions; CEOs of large corporations are pressured and grilled by lawmakers with questions such as "How could your security be so lax" and "Why did you respond so slowly". These nightmarish experiences unfold because companies channel resources into detection and prevention but not enough into response and remediation.

UNDERSTANDING BREACH TIMELINE

In any given 24-month period, a business has a one-in-four chance of being hit by a significant threat.1 Yet, recent high-profile security compromises have proved that many are ill-prepared to deal with a major security incident. In fact, a study from the Ponemon Institute found that 75% of organisations don't have an incident response plan applied consistently across the organisation.2

During the lifecycle of a security breach, several critical events happen. The first event is the point when a breach occurs. The second is when data has been taken or destroyed. The third is when the breach is discovered (either by external or internal parties). And the fourth is when the breach is made public. When it comes to incident response, each of these points in the timeline is colloquially called "boom" events. However, we are assuming here that the boom event is the point when the breach hits the media and the company loses control of the story.

Although the news media often focuses on the event itself, breaches often span many months. Before the breach is disclosed or discovered is termed the "left of boom." During this time, cyber thieves are taking credentials, gaining deeper access, stealing data to be monetised, targeting key intellectual property or preparing a destructive attack. Often, the bad guys have infiltrated long before anyone realises they've even accessed the systems. For the organisation, activities to the left of the boom can include security planning and implementing tools for detection.

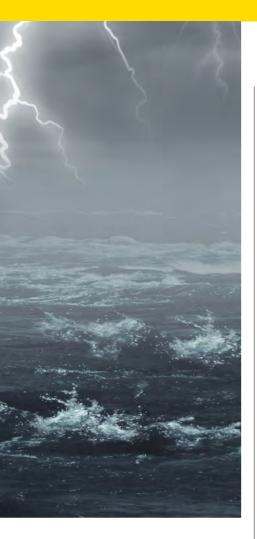
Weathering the storm... Leaders need to display confidence and assure their internal stakeholders in times of crisis.

Everything to the "right of boom" is about responding and dealing with the fact that a security breach is now known. In the past, most organisations focused their attention on the left of boom, not the right, yet both sides of the timeline are important.

MAKING BETTER DECISIONS DURING BOOMS

During a boom event, an organisation has the opportunity to respond well, fumble or completely lose control of its response. When a security breach or cyberattack happens, executives need to drive effective response. They must quickly instil confidence to their customers and other stakeholders that they are pulling out all the stops to resolve it.

For many people in the C-suite, this fast, intuitive response doesn't come naturally. Although they might know what to do technically to manage a breach, they often aren't prepared to cope with the



human side of the equation. In a crisis situation, the C-suite is up against a human adversary, which can be unnerving. Phone calls from angry customers and opportunistic reporters can catch them off-guard.



...companies channel resources into detection and prevention but not enough into response and remediation."

However, doing nothing is worse than taking some action, even if it's not the right one in the long run. When a cyberattack occurs, the one thing you don't have is time. Executives and members of the security team need to be able to filter the available information and put it in context, to quickly make the best decision. Borrowing a principle originally developed b military strategists, organisations often must "observe, orient, decide and act." Looping through this sequence encourages iteration. The idea is that if you can go through the loop more quickly than whatever you're up against, you gain an advantage. By conducting a series of responses, you can harmonise efforts so responses are active. No decision has to be final, and making small mistakes is considered better than inaction and silence.

ACTING TO THE RIGHT OF THE BOOM

The period to the right of boom involves not only mitigating the damage from an attack, but also managing the court of public opinion after customers and the media find out what happened. What happens to the right of the boom can dictate the future of a company. During the crisis, executives need to display seasoned leadership, so it doesn't look like the organisation is trying to hide something.

> Angry calls from customers and persistent reporters can unnerve anyone and evoke unintentional responses.





The ability to make decisions quickly is critical during and after a cyberattack or security breach. Through our research, we have found that the top cybersecurity challenge today and in the near future is to reduce average response and resolution times.3 To handle an incident quickly, organisations don't just need procedures, they also need to practice their responses, so they become automatic.

WHY SIMULATIONS WORK?

In a life-or-death situation – say a heart attack – you would want the person giving your chest compressions to be someone who has practised CPR on a dummy and developed muscle memory. That person who has practiced and rehearsed could save your life because he or she performed CPR before, even if it wasn't on a live human being.

In much the same way, executives need to understand more than crisis-response theory. They need to practice their responses so they know what to anticipate during actual security events. There's no substitute for real-life, hands-on experience, and simulation lets you practice what to do in a given situation. With simulations, you can experience the unexpected in a controlled environment and see how you respond, and then try it again to improve your response. Imagine if you could experience a cyber breach simulation much like a pilot goes into a flight simulator to learn how to best handle emergencies.

The key to simulating a security event is to make it as realistic as possible, so people learn to work together. With a simulation, everyone from the security team, to communications and PR professionals, to the CEO can find out what it is truly like to experience a cyber attack. This type of immersive security experience can be used to test and improve employee skills, security processes and leadership across the organisation. In addition to helping people cope with the event itself and the repercussions to the right of boom, going through a simulation can help executives and leaders develop better strategic long-term actions based on real events and experiences.



IMPROVING RESPONSES

When a crisis arises, there is no substitute for planning and rehearsal. Once people have experienced a simulated cyberattack, they gain the confidence to exercise leadership and quick- thinking when the real thing happens. The best responses focus first on protecting the safety of employees and customers, then data and, finally, the company's brand. It's not a matter of if a crisis will occur, but when, so take a moment to consider these issues as you move forward:

- When it comes to incident response, is our organisation practising what we planned? Do we have a feedback cycle to incorporate the lessons we have learned?
- Do we have the right skills? What muscles do we need to exercise more?
- Does my executive team know the critical actions and decisions they need to make immediately after an intrusion is discovered?

Experts on this topic

Caleb Barlow

Vice President, IBM Security, XForce Threat Intelligence

Christopher Crummey

Executive Director X-Force Command Cyber Range

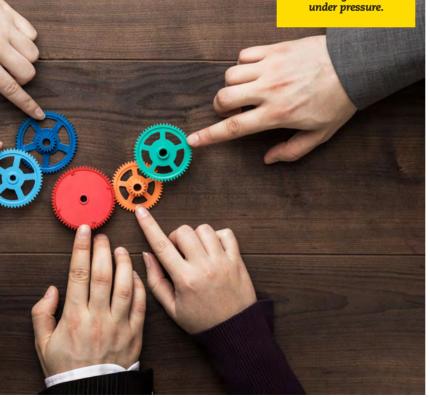
Bio

The IBM Institute for Business Value uses data-driven research and expert analysis to deliver thought-provoking insights to leaders on the emerging trends that will determine future success. For more information, please email iibv@us.ibm.com

Notes and sources

- 1 Ponemon Institute. "2016 Cost of Data Breach Study: Global Analysis." Benchmark research sponsored by IBM Independently conducted by Ponemon Institute LLC. 2016. http://www-01.ibm.com/common/ssi/cgi-bin/ ssialias?htmlfid=SEL03094WWEN
- 2 Ponemon Institute and IBM. "The 2016 Cyber Resilient Organization." 2016. http://info.resilientsystems.com/ponemon-institute-study-the-2016-cyberresilient- organization
- 3 "Cybersecurity in the cognitive era: Priming your digital immune system", IBM Institute for Business Value, November 2016

Leverage people from different backgrounds as some are practised in making decisions under pressure.



KEY LESSONS AND RECOMMENDATIONS

Following extensive experience running hundreds of simulations with a range of clients globally, we have synthesised three key lessons:

- 1. Lead with the outcome. A good security culture is crucial. It needs to protect the brand, reputation and future of the company. Part of that culture is, during an incident, having a clear "commander's intent" that is broadly communicated and understood. What does success look like in a security crisis?
- 2. Move past paper into reality. It is not enough to have detailed security plans and run books. What might look great on paper, tends to crumble when pressure is applied. Without regularly using and honing skills, muscle memory weakens. The entire organisation needs to...
- 3. Leverage different backgrounds. People with backgrounds in emergency medicine and the military usually do much better in security simulations than their colleagues with more traditional business or technology backgrounds. Because these people are used to constantly practising, planning and preparing for many different situations, they are used to making quick decisions under pressure.



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GLOBAL CULTURE AT THE WORKPLACE

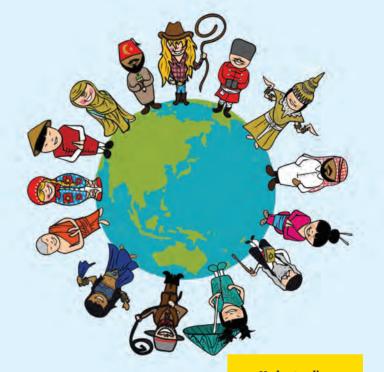


ROM the moment we open our eyes to the moment we lay to rest, communication is what keeps us together, alive and functional. However, not all cultures communicate the same way - "Yes" may mean "Yes" or "No" in some cultures.

Did you know that in some countries "yes" doesn't always mean yes, and nodding your head up and down doesn't necessarily mean yes, nor does shaking your head from side to side automatically mean no?

It pays to know such things, as well as other differences in the cultures of countries with which you may do business. Such knowledge has several advantages. It can:





The more you know about another country and the more you try to learn its language, the more you'll appeal to that culture's people. Obviously, this will be to your advantage.

SOME UNDIPLOMATIC FACTS

Before embarking on countryspecific information, I want to make a few less-than-diplomatic comments. I am discussing generalities, not specifics about any one person or group of people. Finally, I want to apologise in advance if I have inadvertently insulted anyone. It is not intended.

Not all cultures honour honesty. Indeed, in some areas of the world, honesty is owed only to the immediate family and possibly to one's kinship group. In some places, "putting one over" on the other guy or fraudulently manipulating a business transaction is considered brag-worthy. Occasionally what some of us would think of as cheating is considered collaboration. Understanding various cultures can help you smoothly do business.

Again, we are speaking in generalisations based on statistical analyses, which means not all people of group X share trait Y but a certain percentage (typically nearly 70%) do. So, knowing a little about these cultures – the generalisations – enable you to understand when someone you meet behaves differently from people in your culture.

ROMANCE CULTURES

France

As I implied earlier, the French are proud of their language, so you should try to learn some of it, if only "Hello" (Bonjour), "Thank you" (Merci) and "Please" (S'il vous plait!).



and enjoy the finer things in life.

Since this is a high-context culture, being introduced by the right people is important and relationships must be created before the business is conducted. Even in a casual situation, such as walking into a bakery to buy a croissant, the person behind the counter will not smile at you unless he or she has been properly introduced beforehand. You might not even get waited on until someone with whom they are more familiar is served.

The French are also proud of their culture, history and historic role in world politics. Following tradition is of the utmost importance to them and is part of the primary education of French children.

French people value logical thinking and elegant solutions. They don't enjoy brainstorming because they don't see the logic in it and don't want to appear foolish by not announcing "the right answer." They don't respect compromises or quick fixes. They attach great importance to the process for getting things done, as well as to the results.

The French consider education important and schools - that is, the right schools - status symbols. People are judged by the schools they attended.

The French people are cultured and well-dressed (in my opinion, Parisians are among the best-dressed people in the world), and they appreciate the finer things of life. They respect honesty, directness and ethical behaviour. And they believe their fate is predetermined - that is, out of their control.

A few suggestions on how to behave in France: Since the country is proud of its food and wine, eat slowly and show you appreciate the meal.

You're a stranger until properly introduced, so don't expect a store clerk to greet you like a long-lost relative. The clerk will be polite, though, and expect the same from you.

The French dislike rude, crude and loud behaviour. Say "Bonjour"

and shake hands when meeting someone, but don't expect them to smile unless they know you or have been properly introduced.

As for business meetings, the French expect an agenda but attach no importance to the order of items. They consider process important but results even more so. Don't be too rigid, but do try to cover everything on the agenda.

In French companies, ideas travel up the chain of command, a process anathema to Americans.

Case in point: I was consulting to a large US telecommunications company when an international French organisation bought it out. The Americans were accustomed to making decisions at their level and getting credit for their own ideas. But they quickly learned from the new company that ideas went up the chain and decisions down it. Their job was to make the boss look good. They didn't get credit for their ideas, and they were not pleased. Many of them quit within six months of being taken over by the French company.

Italy

Italians are, generally speaking, well-educated, highly intelligent and extremely innovative. Not only do they think outside the box, but they are also adept at creating new boxes. On the other hand, when things go awry they tend to point fingers, "It is the other guy's." They always have excuses why "It's not my fault."

Italy is a very high-context country and it's important to create and maintain a personal relationship before attempting to do business there. When you meet Italians, they are formal at first but eventually loosen up and relax. So it is important to use titles until invited to be more casual.

People in Italy set great store in social interactions. Relationships take precedence over meeting

Italians place great

plans. I got a taste of this when I was invited to an Italian/American CEO association. The program was supposed to begin at 7:30 p.m. but everyone was still eating, networking and socializing when that time rolled around, so the speaker didn't begin until about 8:15. Relationships first. Italians will readily adapt agendas, schedules and plan to continue social interactions.

Superlatives are used sparingly in Italy. Whereas Americans might claim things are going great, Italians will say they're "not bad." They're even more fashion-forward than the French. Think of leather shoes, gloves, handbags and jackets made in Italy.

Italians are emotionally open, expressive and demonstrative. They speak with their hands. They kiss, they hug and they let you know when they're angry.

Some things to keep in mind: When in Italy, use titles rather than first names until invited to do otherwise. Build relationships before talking business. Also, demonstrate your appreciation for things Italian – food, fashion, arts and culture.

Speaking of food, as with the French, it's important to Italians. So show respect for meals and dining. Since eating in Italy is a social activity, chew slowly, savour your meal and enjoy the conversation. Forget your diet; relish the food, gain weight and diet after returning home.

Italians demonstrate strong loyalty to family and community. They are careful to take credit for things from their own regions. For example, it's "our bell tower", "our food", "our wine." If you are an aficionado of fine wines, you will appreciate that the region in which the grapes were grown is extremely competitive and no other region except Champagne can use that name.

Business-wise, Italians favour meeting face-to-face rather than via email. The phone is okay, but they prefer in-person conversations.





Mexicans are fiercely loyal to their culture and value family above all else.

It is okay to mix social and business. Exchange ideas and conduct business over coffee or lunch.

Like the French, Italians focus on results, not process. Plans and schedules are flexible and subject to change at the last minute. Don't get upset if people aren't punctual, but be on time yourself.

Something we can learn from Italians is how to have a life. They work forty-hour weeks, take breaks during the day and sometimes enjoy siestas. And they make time for family life.

Latin America

Generally speaking, the people living in the Latin American countries are considered high-context. Relationships matter. The primary language in most of these countries is Spanish (in Brazil it's Portuguese) and it really helps to learn a little of that language before visiting Latin America. Time is fluid and flexible and family comes before business.

Mexico

The United States has influenced its next-door neighbor in some respects, but – perhaps surprisingly – Mexico is similar to Italy and other romance countries in many ways. This is especially true when it comes to establishing relationships before doing business – and the importance of family above all else. The country is particularistic; that is, it doesn't believe in absolute reality. Context matters, as do superstitions. Mexicans speak with emotion, often accompanied by gestures. Since reality is fluid for them, they – generally speaking – place much less importance on education than do citizens of many other countries.

Case in point: I saw one example of the way they prioritise while teaching a weekly MBA night course. One of my more dedicated students, who'd been in a prior class I'd taught in this program, had to miss three weeks in a row, forcing me to give him an incomplete. The reason for his prolonged absence was that a family member was getting married in another city (about two hours away) and he was expected to attend all the pre-wedding activities.

Mexicans multitask, so to them schedules and deadlines are approximate – they might not show up for an appointment, or they might arrive the next day. If the family needs them for any reason, it comes first. So all rules and plans are adapted to accommodate relationships. It is best, therefore, to confirm an appointment well in advance and again the day before.

Mexicans are loyal to their culture, a symbol of which is the Spanish language. This is why many resist learning English, even in the United States. Still, you'd do well to learn Spanish when doing business in Mexico. Status symbols are important, as are titles, so if you don't know a person's "rank", guess. But guess high. If you think someone's a manager, call her or him a director; if you think someone's a director, call the person a vice president.

Relationships in Mexico are critical, including in business. Have existing contacts introduce you to people. Develop relationships with small talk. In fact, build them before discussing business.

Mexicans may ask you personal questions. Don't feel insulted or embarrassed; it's their way of getting to know you. They are doing their part to establish the relationship. As emotional people, Mexicans like to touch, so shake hands on meeting and leaving. They also blow air kisses (like in Hollywood).

And they are easily insulted. For example, don't suggest splitting the bill; you'll hurt their feelings. Either pay the whole thing or allow them to. Another example: Mexicans, men in particular, feel insulted if they are doing manual labor and you offer to help them. They assume you don't think they're strong enough. In Mexico, machismo matters.

Arlyne Diamond Ph.D is an Organisational Development and Human Resource Consultant with over 30 years experience. The article above is an excerpt from her book titled "Culture Inside the Company and Outside the Country".



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3 REASONS COMPANIES NEED BIG DATA ANALYTICS TO IMPROVE EFFICIENCY





HE world is becoming more data-driven. Most companies understand that if they capture data that streams into their businesses,

they can get significant value from data by applying analytics. Companies are therefore evolving their cultures in a more dataoriented direction and adjusting their strategies to emphasise data and analytics. Data is not restricted to the marketing and e-commerce sectors.

In a study conducted by MIT Centre for Digital Business, companies that were mostly data-driven were found to have 4% higher productivity and 6% higher profits than the average. Analytical decisions and actions continue to be generally superior to those based on intuition and experience.

"It is a capital mistake to theorise before one has data" -Sir Arthur Canon Doyle in Sherlock Holmes



However, most companies are at the early stages of managing their data. Implementing analytics successfully isn't a simple process. It takes time and effort to create the correct data structures and technical infrastructure to enable effective analysis. Companies can start small to gain experience from smaller projects which will create a solid foundation to move onto bigger and more complex projects.

In Malaysia, the Government rolled out a roadmap in 2015 to promote adoption of big data analytics in private and public sectors. Its implementation is spearheaded by the Malaysia Digital Economy Corporation (MDEC). Among MDEC's efforts is to conduct training for data professionals. It aims to train 20,000 data professionals by 2020. Recently, the Ministry of International Trade and Industry rolled out Industry4WRD, a national policy on Industry 4.0 to drive digital transformation of manufacturing and related service sectors in Malaysia.

DATA ANALYTICS IDENTIFY PROBLEM AREAS

With the right analytics, companies can zero in on every segment of the process and examine supply chains in minute detail, accounting for individual activities and tasks. Companies can identify bottlenecks and reveal underperforming processes and components and make the necessary improvements. "The most dangerous kind of waste is the waste we do not recognise" - Shigeo Shingo

Generally, the following are steps that companies should take to identify problem areas:

- a) Decide which business process to measure (or which parts if it is a big process)
- b) Map out business processes, and understand it step by step
- c) At each step, create a list of measurements based on type of measure (for example – time taken, amount of rework, number of failures) and consider if the measurements reflect that part of the business process

Data analytics can determine and forecast demand and specifically, which product and when does demand peak, thus enabling better management of inventory.

- d) Measure what goes on at every step of a business process
- e) Analyse collected data and use that analysis to strategise improving processes
- f) Implement improvements in place and measure again

Companies must make sure to measure the right thing, if they want to make the most use of data and arrive at useful insights. Ideally, measurements should be automated as much as possible to avoid natural human error. The hardware should be attached to sensors to measure and transmit data automatically into an attached software.

For example, AirAsia uses analytics to reduce its fuel consumption. It uses a digital tool called FlightPulse developed by GE Aviation. Pilots can see firsthand, the amount of fuel used at different stages of flight. Pilots then make a peer comparison and work towards fuel savings to reduce cost.



Various techniques can be employed to save fuel, like shutting down an unneeded engine while taxiing to the gate after landing (this action can shave 10 kilograms of fuel per minute). Air Asia was able to reduce fuel consumption by 1% in the year. After collecting the required data, companies should look at trends in the process over time and how it performs at different times.

Companies must test how process performs with different inputs and outputs. Companies need to be creative in finding ways to capture a sustainable competitive advantage. For example, a chemical manufacturing company used neural-network techniques to measure and compare the relative impact of different production inputs on yield. By resetting its parameters accordingly, the chemical company was able to reduce its waste of raw materials by 20% and its energy costs by around 15%, thereby improving overall yield.

DATA ANALYTICS IMPROVE PLANNING AND OPERATIONS Analytics helps in different areas

of planning and forecasting. With proper algorithms, it allows ontime planning to suit live updated conditions. For example, in routing and transportation, UPS, a private American postal service, uses big data to design route structures using a proprietary system called ORION (On-road Integrated Optimization and Navigation). The system uses advanced algorithms to create optimal routes for delivery drivers from data supplied by customers, drivers and vehicles. It can alter routes on the fly based on changing weather conditions or accidents. It looks at the deliveries that still need to be completed and continue to optimise the routes. UPS managed to reduce its delivery miles by 100 million and realised significant savings.

Companies can more accurately detect maintenance needs and identify risks, thereby reducing unnecessary maintenance, increasing asset utilisation and operational reliability. For example, AirAsia uses analytics for preventive and predictive maintenance. Its entire fleet is equipped with FOMAX, an on-board data-capture/ transmisAnalytics help companies to predict and determine early red flags in business strategies and become more risk intelligent.

sion module, which collects aircraft maintenance and performance data, and automatically transmits it to ground-based operations in near-real time. It also subscribes to Airbus' Skywise Core, a cloudbased environment for airlines to share their data to Airbus. With the data provided, Airbus performs advanced predictive modelling to predict upcoming system failures. Airbus transmits the insights for AirAsia to make maintenance decisions of its choosing. The more data that is shared with Skywise, the more accurate predictions and models will be.

Analytics also helps to forecast demand more accurately so that companies can cope better with demand. Companies can judge the type of products, the quantity and the time at which products are in demand and prepare its production. It can predict with different anomalies such as weather and consider current changing consumers behaviour. Here is the difference with traditional forecasting. Companies can also use the information to help its customers plan so that it is able to cope with demand and better meet their needs.

Take Grab as an example. It targets "peak shifting"; it wants customers to get a ride when they want it and at a price they want. Through data collected and as transport demand can be lumpy, Grab noticed a seasonality to demand and supply. At certain times and days, imbalances appear, peak and disappear, and the process repeats itself. Grab currently uses a widget to display aggregated data to customers in easily interpreted visualisations, so that they can plan to leave at times when there is more supply, and with potentially more savings for fares.

DATA ANALYTICS IMPROVE DECISION MAKING

Companies need to make faster and better-quality decisions in today's competitive and fast-paced landscape. Decisions must also be made with full information and extensive consideration of possible alternatives. Using analytics, data can be processed quicker with the right software than using traditional Excel, which reduces time to insights. By becoming more risk intelligent, companies will be more adept at dealing with uncertainty and be strategic at decision making. Better and faster insights also allow red flags to be identified early, such as why a business strategy is not working as well as planned and allows for corrective actions to be taken.

It is also common for organisations without big data analytics capabilities to work in silos. Each department often report their own matrices without providing full context of information. The core idea of analytics is that data is drawn from various sources for analysis. There is a unification of data which breaks down the internal silos. It improves collaboration between departments and the speed of getting data insights. Silos are unhealthy because it erodes teamwork and collaboration; it does not help people consider the full picture. Companies need to transcend these silos in the interest of customer needs and company growth.

CONCLUSION

Data is undeniably powerful. Analytics is ultimately about making the best possible use of information to make the best possible decision. Better experiences, consistent quality and lower costs. The ability to use data represents a real and essential competitive advantage in today's digitised economy. It allows companies to learn from the past and prepare for the future. It is best to start by identifying high value opportunities, which is capturing the "low hanging fruit" to build a smarter tomorrow.

Jeanne Kuah is the founder and CEO of a data analytics and strategy development consulting firm. Her passion is to create a smarter tomorrow. To find out more, visit www.letolleconsulting.com.

> Data analytics will allow companies to determine their pain points, identify bottlenecks and work on improving the business.





A NEW GOVERNANCE APPROACH TO MANAGE RISK IN THE DIGITAL WORLD



T has become a cliché to say that we live in a data-driven world. Data has become the beating heart of enterprises from Nike to Novartis, as they transform their business and its functions – from manufacturing to marketing. While the customer, of course, is still flesh and bone, everything else is or will be, digital.

The opportunities of digital convergence are a major focus across all industries be it retail or aerospace. Convergence is multifaceted. It requires investment in an ongoing change to processes, people, infrastructure, and systems. Similar to the earlier IT revolution, industries look to niche and specialised skills in data analytics, machine learning, intelligent automation, artificial intelligence, and cybersecurity for their digital transformation.

Digital technologies evolve rapidly, requiring speed and agility that is often better represented in specialised third parties. Consequently, these third parties have come to play a large role in the everyday operations and success of digital transformation efforts.

DON'T IGNORE RISK WHILE PURSUING VALUE

This reliance on third parties comes with risks. Your entire sourcing

chain is not merely a source of value; it is also a source of significant business risk. As enterprises aggressively innovate and co-create with third parties, they must be just as aggressive with tools to measure and track risk identification, controls, compliance, and governance. In today's rapid design, test, and implement cycles, enterprises must establish sophisticated governance protocols so that they are not blindsided by third-party risk vectors.

With the Regulatory sector is catching up, enhanced governance to test enterprise compliance capabilities and diligence is critical. For example, New York Department



In today's rapid design, test, and implement cycles, enterprises must establish sophisticated governance protocols so that they are not blindsided by third– party risk vectors." of Financial Services' (DFS) cybersecurity regulation now expects DFS-regulated entities to have a cybersecurity program in place, which also includes protections of data at third-party providers.

Regulations such as General Data Protection Regulation (GDPR), Consumer Credit Protection Act (CCPA), Health Insurance Portability and Accountability Act (HIPAA), and The Common Rule, also known as the Federal Policy for the Protection of Human Subjects, are crossindustry challenges. No one along your sourcing chain is immune.

ENHANCE YOUR GOVERNANCE WITH CONTINUOUS RISK MONITORING

Whether it is a new application, system, or the enhancement of an existing platform, changes are occurring at a faster pace. However, enterprises are still saddled with tried and true episodic Risk Assessments. Periodic governance audits and assessments are no longer sufficient. These traditional all-encompassing assessments, which often include 1,000 or more questions, place a very expensive demand on both the service user and provider.

Real-time, continuous, multicategory, risk intelligence for both third parties and operating locations is the alternative. Such continuous risk monitoring also adds teeth to governance protocols, allowing enterprises to focus on specific areas of third party risk that concern them – governance, financial, compliance, cybersecurity, etc. Industry-leading enterprises use our Continuous Risk Monitoring and Intelligence Solution, Supply Wisdom, as a critical component of their governance and third-party risk management programs.

Continuous risk monitoring enables enterprises to maximise Risk Assessment cycles and cadence, by using changes in behaviour to identify specific areas for review and avoid the time and expense of one-off risk assessments. More effective and efficient use of Risk resources and budgets is a universal goal. Solutions like Supply Wisdom will help you reach that goal.

This is a contribution by John Bree a Partner & SVP at NeoGroup. He is also a financial industry professional with a proven track record in developing and managing AML/CTF, KYC, Anti-Fraud and Vendor & Third-Party Risk Management programs.

> In order to navigate the risk-filled digital world, one must adopt continuous risk monitorina.



BIG DATA AND CLOUD COMPUTING – THE WAY FORWARD

CREATING VALUE IS A BUSINESS IMPERATIVE. IN TODAY'S DIGITAL AGE, LEVERAGING THE BENEFITS OF BIG DATA AND CLOUD COMPUTING CAN HELP ORGANISATIONS DERIVE VALUE FROM BETTER, SMARTER, REAL-TIME DECISIONS.



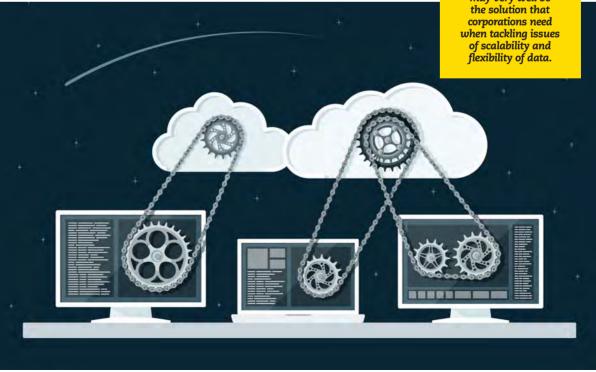
APID technological advances have emerged as a notable feature in driving important business decisions. In the digital age, it is about how human beings are applying

technologies in new and innovative ways. Key to this is data, which has unprecedented volume, speed and global reach, where people and things are connected more than ever in today's world. With improving analytical methods, machines will be able to learn from the data collected, allowing for meaningful insights to be supplied to organisations to make better decisions.

Big data is a large volume of data that cannot be sufficiently managed by traditional and relational technologies. It can be non-relational, unstructured or

structured data streaming in from diverse sources at a massive scale. By processing large volumes of diverse data quickly and reliably, big data has evolved from merely collecting and reporting data to generating actionable insights. The transformation of big data starts from the collection of the right data sets, followed by the creation of a data lake, and finally, analysis to derive insights and solve business problems.

> **Cloud computing** may very well be the solution that corporations need of scalability and





is crucial in an organisation's framework to ensure a stable, secure and trusted environment when it comes to data management and adoption of cloud technology.

The global big data market has grown rapidly from US\$8 billion in 2011 to US\$35 billion in 2017 and it is expected to reach US\$103 billion by 2027¹. This growth has been facilitated by declining technological costs and an improvement in the analytics talent pool. In Malaysia, the journey towards becoming a digital nation with the adoption of a digitally-integrated lifestyle has received positive support, with significant investments by venture capital funds in the life sciences, information and communications technology (ICT), and manufacturing sectors, increasing from US\$0.78 billion in 2006 to US\$1.5 billion in 2016².

CONVERGENCE OF BIG DATA AND CLOUD COMPUTING

Big data has a set of characteristics, often defined by the five "V"s:

- Variety Harnessing different types of unstructured and structured data
- Veracity Acquiring data from trustworthy and credible sources
- Value Leveraging data and insights to generate value
- Volume Processing high volumes of data
- Velocity Collecting and processing data on a real-time basis

This set of characteristics offers substantial benefits to organisations who are willing to take advantage of it. Among the benefits of big data are improving design and development, optimizing supply chain management, streamlining operations and enhancing consumer experience.

While there is no doubt that big data has brought about considerable benefits to organisations, the challenges lie in data storage due to a lack of infrastructure, and data management due to multiple sources and formats. Moreover, the growth of data dramatically increases the challenges of scalability and flexibility. To address these challenges, cloud computing may be a fitting solution.

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction. Cloud has transformed the way organisations manage scalability, resiliency and cost efficiency, so organisations should consider leveraging the cloud when using big data.

WHAT DO THE COMBINATION OF BIG DATA AND CLOUD COMPUTING OFFER?

If an organisation is to succeed in the digital age, big data alone is not sufficient; hence, the calls for the adoption of cloud computing in order to be more impactful. One benefit of adopting cloud is the availability of a simplified, flexible and scalable infrastructure that allows organisations to be nimble and ready for changing consumer expectations.



¹ Global WAM Trends: Big Data and Analytics, EY, 2018

² Staying Ahead of the Curve – Industrial Revolution 4.0, EY, 2018



The enormous volume of data that grows by the day raises the need for a significant commitment of hardware and processing resources. Organisations could leverage cloud instead of investing in physical infrastructure to accommodate peaks in data traffic and storage. Cloud is a flexible infrastructure that can be scaled according to needs, which makes it easier and more convenient to manage workloads with minimal management. Hence, cloud computing is a perfect partner for big data

Big data and cloud computing deliver value to organisations by reducing cost. There is no upfront capital expenditure since cloud computing is a pay-as-you-use solution, allowing end-users to pay only for what they use. This solution reduces capital expenditure (CapEx) and moves the cost to operating expenses (OpEx). Cloud enables organisations to drive costs down without the need to invest heavily in setting up and maintaining hardware infrastructure.

In the digital age, digital media are increasingly making an abundance of information available to anyone; and with the convergence of web and mobile, increasingly more consumers are using smart devices to access sites and services. Organisations can therefore use cloud computing to improve access (omnichannel access) and allow services to be available anywhere. Cloud adoption has been on the rise, with a growth from 93% in 2015 to 96% in 2018, as found in a 2018 survey by RightScale³. With cloud computing technology on the rise, organisations can now leverage the cloud to perform complex analysis of data, allowing organisations to benefit from the integration of data computing services and a cloud platform.

IMPLEMENTING A FRAMEWORK IS KEY TO OVERCOMING CHALLENGES

Despite the advantages offered by the combination of big data and cloud computing, it also creates a new unfamiliar platform that raises some concerns and that needs to be tested.

"

If an organisation is to succeed in the digital age, big data alone is not sufficient; hence, the calls for the adoption of cloud computing in order to be more impactful." Organisations need to employ the right measures to prevent data leakage and loss.

The fundamental challenge is security and control in the cloud environment. In the cloud, organisations face numerous security and data privacy challenges related to identity and access management (IAM), multi-tenant architectures, service availability (malicious insider, external threats to service), data loss and leakage, data privacy issues and security governance. Big data deployments in the cloud require the deployment of new security tools and platforms (authentication, access control, encryption, event logging and monitoring).

Another key challenge is the loss of control and performance when adopting cloud. The control ownership varies depending on agreements between cloud providers and organisations. Since organisations lack the visibility of the underlying computing resources, organisations face risks in meeting Service Level Agreements (SLAs) or availability requirements. Organisations and cloud providers need to work together to define SLA specifications to ensure that quality, availability,

³ RightScale 2018 State of the Cloud Report, 2018

reliability and performance are up to the organisations' expectations. Moreover, the type of cloud an organisation chooses matters. Not all cloud service providers offer the same level of controls and trust levels. A more rigorous control environment is required for mission-critical applications, infrastructure and platforms.

To overcome these challenges and effectively move ahead with their business goals, organisations should have a framework to enable a secure and trusted ecosystem. The first part of the framework is to assess and monitor the profile; organisations should periodically examine their risk profile and develop a plan to address any key areas of exposure. The next part of the framework is to certify and comply,

> Big data is critical in driving better, smarter, real-time decisions that will enable organisations to compete in the marketplace.

where organisations should focus on the legal, governance, compliance and audit aspects to confirm that using cloud computing for big data does not violate any laws or agreements. Finally, the last step in the framework is to improve and enhance any new capabilities, so that organisations can transform data in the cloud into enterprise information assets and one true source of data to yield added business value for the organisations.

FUTURE OF BIG DATA AND CLOUD COMPUTING

No matter what industry an organisation is in, a key success factor for organisations is the availability of relevant data at the right time. However, data is only a tool, and organisations need to know how to analyse and utilise data to move ahead in the digital age. Big data is critical in driving better, smarter, real-time decisions that will enable organisations to compete in the marketplace.

To be more competitive and efficient, organisations need to use better tools to reap the benefits of big data. Integrating new technologies like cloud technology and big data will allow organisations to gather data in the cloud, analyse it No matter what industry an organisation is in, a key success factor for organisations is the availability of relevant data at the right time."

in real-time and use this information to obtain insights to improve product and service quality and efficiency. With the convergence of big data and cloud computing, there is a world of possibility ahead where organisations can take their products or services to an entirely new level.

Ling Kay Yeow is a Partner at Ernst & Young Advisory Services Sdn Bhd. The views in this article are those of the author and do not necessarily reflect the views of the global EY organisation or its member firms.



The Fourth Leap | Business Meets Pleasure



A DIFFERENT TAKE ON MEETINGS AT RENAISSANCE KL HOTEL

Elevate meetings through fuelling creativity that excites the senses.

Ideally located at the corner of Jalan

Sultan Ismail and Jalan Ampang, the hotel boasts a flexible 37,000 square feet of convertible event spaces.

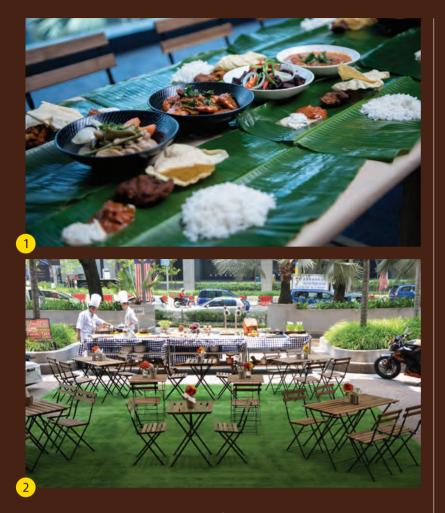
Housing over 20 unique and versatile spaces from a Grand Ballroom which accommodates up to 1800 guests to intimate spaces for 10 guests by the outdoor Gazebo Poolside, overlooking an Olympicsized swimming pool, Renaissance Kuala Lumpur Hotel is an ideal venue for hosting small scale social events to large-sized conventions and meetings in the heart of the city.

The hotel distinguishes itself by taking a different approach to planning events and customises each of it based on the meeting purpose. Setting themselves apart from other city hotels, the hotel's dedicated event team takes pride in designing and recommending intriguing concepts that tell a story and convey a message through engaging and captivating set-ups.

SPARING NO EXPENSE

In today's digital culture of Instagram-worthy moments, meeting planners pay close attention to details in order to captivate the attention of guests from the moment they enter the venue. Inspired by endless possibilities, the hotel has exciting settings for meeting along with themed breaks and luncheons complete with creative food and beverage offering that engages and inspires attendees. Approaching events with innovative concepts sets the tone of the event flow and transforms conventional meetings, delivering more than a meeting but an experience.

Planning a well-crafted, productive and inspiring meeting has become an art for limitless possibilities. Depending on the event agenda, meeting planners can decide



on having a creative atmosphere for brainstorming sessions, theatre-style seating for presentation, casual meeting setting with plush bean bags, outdoor poolside events and more. The hotel's team of experts will design and deliver those extraordinary experiences through innovative and modern concepts. Be it outdoors or indoors, an

intriguing setting for a coffee

break will add new dimensions to the occasion. A garden set-up allows attendees a breath of fresh air while the food truck concept offers a casual and modern dining experience. Meanwhile, bakeology and live counters allow attendees to experience the thrill of watching a dish being prepared, encouraging open dialogue with the chefs and enjoy an interactive experience.

ALL-PURPOSED ROOMS

Boasting a separate entrance from the hotel's driveway to the enchanting Grand Ballroom and over 10 convertible function rooms, the Convention Center ensured an exclusive and elevated sense of arrival.

Set over 1,430 square metres and with the capacity to accommodate up to 1,800 guests for a cocktail reception or 750 guests for a sit-down banquet, The Grand Ballroom also features a spacious adjoining foyer perfect for pre-function reception area. For smaller meetings and events, the ballroom can be flexibly configured into two separate rooms.

The R-Studio is an intriguing lifestyle event space, ideal for inspirational business meetings or social get-togethers. Comprising of R-Studio 1, R-Studio 2 and a spacious sit-out balcony, the space is able to accommodate up to 300 guests.

The Poolside Gazebo by the outdoor Olympic-sized swimming pool provides an enchanting backdrop for evening events, such as cocktail receptions or intimate gatherings.

All venues are equipped with state-of-the-art audio and visual technology, teleconferencing equipment, high-speed internet access and intelligent lighting.

The way people work is changing and the hotel is staying ahead with transforming meeting experiences through engaging technology, flexible workspace and intriguing concepts to encourage collaboration and innovation.

> Renaissance Kuala Lumpur Hotel Corner Of Jalan Sultan Ismail & Jalan Ampang, 50450 Kuala Lumpur, Federal Territory of Kuala Lumpur Tel: +603 2162 2233 Email: rhi.kulrn.sales@renaissancehotels.com Website: kirenaissance.com



Pic 1: Cultural immersion with local banana leaf rice.

Pic 2: Outdoor garden-style seating for themed luncheons and coffee breaks.

Pic 3: Meticulously prepared food for guests dining pleasure.



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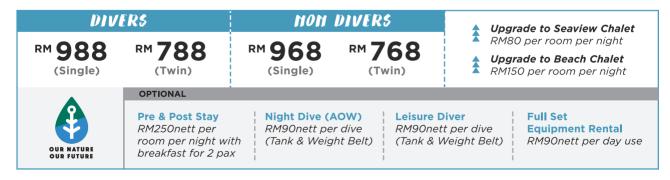


OUR MATURE, OUR FUTURE





Berjaya Tioman Resort welcomes you to be a part of our journey in restoring our beautiful ocean and our land while playing our part in preserving the sanctuary of Tioman Island to make it an exceptional destination.



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