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Be a part of Supply Chain Asia Corporate Endorser Programme (CEP) and support our work to raise the profile and professionalism of the supply chain and logistics industry. As a not-for-profit entity, SCA relies on the goodwill of many organisations to build up a community that shares knowledge, improves networking and enhances the image and career development of professionals in the most dynamic industry. As a member of CEP, you can expect SCA’s unequivocal support in various areas, such as advertisements in our widely read SCA magazine, co-hosting of events as well as active participation in various major events and activities. If you are keen to find out more about our CEP, you can reach out to us at admin@scasia.org. Together, we can make the industry an even more exciting and passion-driven sector in the region.

JOIN US IN OUR QUEST TO RAISE THE PROFILE OF THE SUPPLY CHAIN & LOGISTICS INDUSTRY

ABOUT US
Supply Chain Asia is a not-for-profit professional body dedicated to bringing supply chain and logistics professionals in Asia together. Our vision is to create platforms whereby members of the community can come together to network, share and learn from one another. Our focus is to enable the development of collaborative relationships and partnerships. Our mission is to make Supply Chain Asia your community of choice.

VISION
Connect. Communicate. Collaborate. By empowering members with platforms to apply these three crucial Cs, Supply Chain Asia intends to be the Community of Choice for Logistics and Supply Chain Professionals living and working in Asia.

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Walmart & JD.com expand strategic cooperation

Strategic partners Walmart and JD.com are expanding their cooperation to further integrate their platforms, supply chains and customer resources in China.

Coinciding with the launch of the first JD-Walmart 8.8 omnichannel shopping festival on 8 August, the new initiatives aim to offer shoppers throughout China faster and more convenient access to high-quality authentic products through multiple channels.

Walmart and JD.com established their pioneering partnership one year ago, combining the strengths of Walmart and China’s largest online retailer to generate exciting new e-commerce and retail initiatives. The collaboration is helping to boost the popularity of US-made products in China and allowing shoppers to directly buy goods from Walmart stores on the JD.com platform.

Job creation priority for region

The 20th anniversary of the Asian financial crisis and 10th anniversary of the North Atlantic financial crisis brought back a sense of déjà vu – we have been here before.

Since last year’s Brexit and Trump election, unpredictable politics was the major disruptor. But the underlying cause was the insecurity of the working class – adjusted for inflation, American median weekly earnings are today no higher than they were in the 1980s. Meanwhile, the CEO in an Indian IT firm earns 400 times the wages of his average worker.

The job situation is perilous in many countries. McKinsey estimated that 45 per cent of the global working-age population is under-utilised, namely, unemployed, inactive or underemployed. Furthermore, more than 75 million youth are unemployed, many in the high population growth, low GDP income areas and vulnerable to social unrest.
Artificial intelligence’s role to transform pharmaceutical industry

The availability of big data in life sciences and a rapid progression in deep neural networks led to a wave of AI-based start-ups focused on drug discovery sweeping through the biopharma industry over the last three years. A number of significant AI-big pharma collaborations were announced in 2016-2017, including Pfizer and IBM Watson, Sanofi Genzyme and Recursion Pharmaceuticals, and GSK and Exscientia, among others.

As of today, there are no AI-inspired, FDA-approved drugs on the market. Also, it is important to realise that while AI-based data analytics can bring innovation at every stage of drug discovery and during the development process, this data will not magically serve as a substitute for chemical synthesis, laboratory experiments, trials, regulatory approvals and production stages.

What AI can do, though, is optimise and speed up R&D efforts, minimise the time and cost of early drug discovery, and help anticipate possible toxicity risks or side effects at late-stage trials to hopefully avoid tragic incidents in human trials.

Dell Technologies research explores the next era of human-machine partnerships

In 2030, every organisation will be a technology organisation and as such, businesses need to start thinking today about how to future-proof their infrastructure and workforce, according to a report published by Dell Technologies.

The research, led by the Institute for the Future (IFTF) alongside 20 technology, academic and business experts from across the globe, looks at how emerging technologies, such as artificial intelligence, robotics, virtual reality, augmented reality and cloud computing, will transform our lives and how we work over the next decade. The report, titled The Next Era of Human-Machine Partnerships also offers insight on how consumers and businesses can prepare for a society in flux.

For the first time in modern history, global leaders cannot predict how their industry will fare further down the line. According to Dell’s Digital Transformation Index, 61 per cent of APJ business leaders have experienced significant disruption to their industries as a result of digital technologies. And more than half of businesses believe there is a possibility their company will become obsolete within the next three to five years.

Crown opens new facility in South Korean growth hub

To continue to meet growing demand for its lift trucks and fleet management technology, Crown Equipment has upgraded its South Korean operations following a move to a larger facility in one of the country’s fastest growing logistics hubs.

Located in Icheon, Gyeonggi-do, the new facility supports Crown Korea’s experienced, factory-trained team of material handling specialists, including the sales and service technicians and support staff who assist customers countrywide.

The new branch is located for greater convenience and features larger sales and rental forklift fleets, better stock capacity and improved inventory management for faster parts turnaround. The Icheon facility is the third major demand-driven expansion in Asia for Crown in the last 12 months, following recently completed facilities in Johor, Malaysia and Rayong in Thailand.
New technology for greater transparency and more secure processes in the warehouse

As part of its B2B logistics services, Arvato is focusing its packaging process across Europe on camera technology for the first time to further increase the already high process reliability in the supply chain.

To do so, cameras installed above the packing stations document whether each shipment is complete and contains the right contents in the right packaging.

Arvato runs the European central hub in Düren in North Rhine-Westphalia and is responsible for all B2B logistics for the world’s largest photography and imaging company. In addition to warehousing, order picking, shipment packaging and transport management, the services Arvato provides in part of the 75,000 m² logistics centre today include the procurement of materials as well as numerous value-added services.

Swisslog reaps major contract from dm-drogerie markt

Swisslog has been awarded a major contract from dm-drogerie markt GmbH & Co. KG, Karlsruhe, Europe’s top-earning drugstore chain. Over the next two and a half years, an innovative logistics centre valued at nearly €100m will take shape on the greenfield in Wustermark, west of Berlin, in the German state of Brandenburg.

Swisslog is in charge of the intralogistics as well as all the construction work. “We are very pleased that our long-time customer has placed his trust in us again,” states Heinz Ennen, Managing Director of Swisslog GmbH in Dortmund and Director of Sales for Central Europe. “The new facility in Wustermark is already the third major contract that we have had the honour of building for dm.”

Over the past 15 years, the Swiss intralogistics specialist has built a logistics centre in Waghäusel, Baden-Württemberg und in Weilerswist in North Rhine-Westphalia for the drugstore chain.
UPS expands alcohol shipping to businesses and consumers across Asia Pacific

UPS can now ship wine, beer, and spirits (liquor) to businesses and consumers in 10 destinations across Asia Pacific, comprising China, Hong Kong, Japan, Korea, New Zealand, Philippines, Singapore, Taiwan, Thailand, and Macau. In Malaysia, only businesses can import wine and beer.

This expansion broadens the number of alcohol shipment destinations across UPS’s global network that permit the import of all three categories of alcohol – wine, beer, and spirits (liquor).

Additionally, UPS can now serve 24 of the top 35 wine importing countries, and nine of the top 25 spirits (liquor) importing countries globally.

US fashion chain store automates processes with Skyfall system

US fashion retail chain Stage Stores used a Skyfall solution to modernise its regional distribution centre in Jacksonville, TX. It boasts impressively high efficiency and reliability, and with 12 sortation lines and over 5,000 transport pouches, it is the first system of its kind that Swiss company Ferag AG has supplied to North America. The trading group uses Skyfall to handle its entire order fulfilment for 13 states across the American south, west and midwest.

Purchases of clothing, shoes and accessories have always been made through a wide variety of channels. Customers might buy the traditional way after trying on in a store, via the stubbornly surviving mail-order catalogue, by teleshopping, or instantly with a mouse click or swipe of a tablet or smartphone – of course these days, online ordering is gaining the upper hand. The Stage Stores chain, a fashion retail specialist, is no exception in this respect.

In fact, it runs a truly multi-channel operation. With more than 850 brick-and-mortar stores and several internet portals, its US customer offering includes shoe and textile labels, such as Calvin Klein, Clarks, Dockers, Jockey, Lee, Levis and Ralph Lauren.

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For the first time ever in Singapore, Supply Chain Week (SCW) hit our shores with an action-packed five-day event consisting of SC Hackathon, Supply Chain Asia Forum (SCAF), and industry site visits to some of the top manufacturing facilities in the country. Inspired by Europe’s Supply Chain Day, SCW aims to reach out to industry leaders, supply chain executives, logistics professionals, and aspiring individuals who want to learn, join and engage with others in the community.

This regional event will be held from Monday to Friday, 18-22 September 2017. Hosted by Supply Chain Asia (SCA), the main event will be held at Supply Chain City (SCC) at 8 Bulim Avenue. During the week, guests will also be invited to check out Supply Chain & Logistics Innovation Playground (SCLIP), an initiative by SCA that provides a platform for industry players to come together to try, test and launch new and innovative solutions.
### Day 1
**18th September (Monday)**
- 1300-1800hrs  Opening of Supply Chain Hackathon

### Day 2
**19th September (Tuesday)**
- 0800-1800hrs  Supply Chain Hackathon Boot Camp

Supply Chain Hackathon Paper Submissions:
- 0930-1100hrs  Supply Chain City (SCC)
- 1100-1230hrs  Trip will be from SCC to Centre of Innovation - Supply Chain Management
- 1330-1530hrs  Trip will be from SCC to Kuehne + Nagel
- 1530-1700hrs  Trip will be from Kuehne + Nagel to Schaefer Tech Centre

Supply Chain Hackathon Presentation:
- 0930-1700hrs  Supply Chain Hackathon Presentation

Supply Chain Hackathon Prize Presentation:
- 1730-1800hrs  Supply Chain Hackathon Prize Presentation

Supply Chain Open House:
- 0930-1100hrs  Trip will be from SCC to IBM Singapore Technology Park
- 1330-1500hrs  Trip will be from SCC to Hub Distributors
- 1530-1730hrs  Trip will be from Hub Distributors to Commonwealth Food Services
- 1600-1730hrs  Trip will be from Commonwealth Food Services to Yang Kee Logistics

### Day 3
**20th September (Wednesday)**
- 0900-1600hrs  Green Freight Asia Forum (no transportation provided)

### Day 4
**21st September (Thursday)**
- 0830hrs  Opening of Supply Chain Asia Forum - Registration
- 0920hrs  Opening by Mr Peter Woon, Chairman, The Procurement Council
- 0930hrs  CPO Presentation by Mr Graham Wright, VP of Procurement, IBM
- 1000hrs  CPO Dialogue - Industry 4.0 and its Impact on Procurement
  - Moderator: Mr Peter Woon, Chairman, The Procurement Council
  - Panelists:
    - Mr John Lim, General Manager, Supply Chain & Procurement, Asia Pacific, Middle East and Africa, ConocoPhillips
    - Mr Tiow Wei Yeong, Global Procurement Director, Diageo
    - Mr Thomas Holenia, President, Henkel Singapore
    - Mr Graham Wright, VP of Procurement, IBM
- 1130hrs  Lunch and Tour of SCLIP
- 1330hrs  Supply Chain Financing 2.0: Technologies and Trends by Ms Daphne Ng, Founder & CEO, JEDTrade
- 1400hrs  The Future of Digital Procurement by Erich Winsloe, Head of Operations, AP, SAP Ariba
- 1430hrs  Networking Break
- 1500hrs  Panel review on Adaptive Procurement
  - Moderator: Mr Lin Chee Kin, Principal Consultant, EZ Solutions
  - Panelists:
    - Mr Michael Koh, Head of Procurement, Asia Pacific, Dimension Data
    - Mr Philippe Ruffier, Supply Chain Director, Mundipharma
    - Mr Erich Winsloe, SAP Ariba, Head of Operations, AP
- 1630hrs  Event Ends

### Day 5
**22nd September (Friday)**
- 1330hrs  Registration
- 1430hrs  SC & Logistics Education Development Dialogue
  - Moderated by SCA
  - Panelists:
    - Dr Wang Jianguo, Director, School of Engineering, Republic Polytechnic
    - Mr Peh Wee Leng, Director, School of Business & Services, ITe College East
    - Ms Cheryl Wee-Teo, Assistant Director, School of Business, Temasek Polytechnic
    - Mr Robin Moens, HR Director, Kuehne + Nagel Pte, Ltd.
- 1600hrs  Education Development Networking – IHLs, Industry Training Institutions & SSG
- 1700hrs  Event ends

Note: Information is correct at time of print.
A Time to hack, disrupt & challenge

With the advent of Airbnb and Uber, disruption has forced industry players to change the way they think or do business. It compels them to look at things in a different perspective, turning challenges into opportunities in the process. Before we can push the logistics industry to adopt, implement and embrace innovation, we need to first ask ourselves: ‘How can innovation drive logistics businesses in 2017 and beyond?’

For SC Hackathon 2017, participants will be presented with a bold problem statement to brainstorm ideas and solutions to inspire logistics companies, supply chain professionals, and businesses to innovate, adapt and drive business growth within the next five years. Open to local tertiary students from polytechnics, institutes of technical education, and universities, SC Hackathon will feature 18 teams of three students each battling it out for the coveted winner’s trophy.

Teams will receive guidance from senior executive professionals to mentor them throughout the competition to prepare them for the final showdown on 20 September. Participants will then have to present their solutions to an esteemed panel of industry veterans before the ultimate winning team is announced on the afternoon of 22 September.

The Cycle of Hackathon Competition

18 September (Opening)  
19 September (Boot Camp)  
20 September (Judging Round)  
22 September (Prize Presentation)

The Finalists

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<tr>
<th>Institution</th>
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<td>NP Team A</td>
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<td>Republic Polytechnic</td>
<td>Dreamworkz</td>
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<td>Temasek Polytechnic</td>
<td>TP Team 1</td>
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Adopting a spirit of thoughtful learning

Learning in a plain classroom setting can only take you so far. By taking part in SCW site visits tour, guests will learn firsthand the technologies and operations that today’s manufacturing facilities use to stay ahead of the competition.

Centre of Innovation for Supply Chain Management (COI-SCM)

The site visit will include a presentation by COI-SCM, sharing of case studies, show and tell of development projects in progress, as well as a tour of the centre’s facilities. The first is the Supply Chain Lab, which demonstrates how supply chains are not unique to any particular industry but are an inherent part of every business. Through the adoption of simple innovations, the Supply Chain Lab will shed light on how companies can achieve greater efficiency and leaner manpower. The second facility is the Productivity Lab, which is jointly developed with McKinsey and showcases technologies aimed at enabling lean manufacturing.

Venue: Level 2, Republic Polytechnic Industry Centre
9 Woodlands Avenue 9, Singapore, 738964

Commonwealth Food Services (CFS)

The site visit includes a showcase of a purpose-built 300,000 ft food production cum logistics in a ISO 22000 certified and Green mark GOLD standard facility. Guests will learn about food production covering a complete assortment of artisanal bakery production lines, central kitchen, meat processing, ice cream plant with automation in production lines and warehousing system. The facility is designed with varying best practices and some firsts in Singapore implementation.

Venue: Commonwealth Capital Building
7 Buroh Lane #06-01 Singapore 618291

Hub Distributors

HUB Distributors Services Pte Ltd was established in 1988. The company has grown from a local transporter with four vehicles to a full-fledged third-party logistics company, providing an extensive range of services across the supply chain. The site visit will include an introduction and history of HUB business units across the supply chain. There will also be a visual showcase presentation, as well as a tour of their warehouse, which is currently the traditional model in preparation to be disrupted and upgraded with the new implementations of the prototypes currently in trial at SCLIP: Voice picking & Smart Glasses wearable technology.

Venue: HUB Distributors
2 Clementi Loop #01-04 Singapore 129809

IBM Singapore Technology Park

The site visit will include a tour to IBM Singapore Technology Park (ISTP), a manufacturing facility for its System z mainframes and high-end POWER systems. This facility was opened at a ribbon cutting ceremony in Tampines by Singapore’s Minister for Finance, Mr Tharman Shanmugaratnam, and Mr Rod Adkins, IBM senior Vice President and Group Executive, IBM Systems & Technology Group. The facility serves as IBM’s manufacturing and fulfilment centre for IBM’s high-end systems clients across Asia, Africa and Europe. During the plant tour, the IBM team will showcase IBM’s Supply Chain Transformation Journey along with Supply Chain Analytics and Cognitive Solutions.

Venue: IBM Singapore Technology Park
6 Tampines Industrial Avenue 5 Singapore 528760
Green Freight Asia Forum (GFA 2017)

The GFA 2017 Annual Forum this year highlights proven green freight technologies. Industry experts will share their knowledge, experiences and ideas in advancing sustainable road freight in Asia Pacific.

Venue: National Design Centre
111 Middle Road Singapore 188969

Kuehne + Nagel

The site visit will include a tour of the hub’s pharmaceutical and healthcare facilities, the Kuehne + Nagel Logistics Control Centre, as well as an overview of our industry-leading digital solutions. The Singapore logistics hub is Kuehne + Nagel’s largest investment outside Europe. Aside from the standard freight and warehousing service offerings, the new facility will serve as a regional centre of excellence for high-tech, industrial, pharmaceutical and healthcare customers, offering supply chain optimisation and value-chain transformation solutions. More than 40 per cent of the logistics hub has been furnished with advanced chilled storage, redressing and postponement facilities to support the growing base of pharmaceutical and healthcare companies operating in Asia.

Venue: Kuehne + Nagel Singapore Logistics Hub
10 Pioneer Crescent Singapore 628566

Supply Chain City (SCC)

The site visit will include a presentation of SCC, showcase of Fusionaris and site tour of the office.

Venue: Supply Chain City
8 Bulim Avenue Singapore 648166

SSI Schaefer

The site visit will include a presentation, featuring a brief introduction of SSI Schaefer and a presentation of storage and order picking system, as well as a demo in the Tech Centre on various piece picking systems, followed by a demo in warehouse for mobile racking, channel storage system and LOGIMAT Vertical Storage Lift.

Venue: Schaefer Systems International Pte Ltd
73 Tuas Avenue 1, Singapore 639512

Yang Kee Logistics

The site tour will start with an introduction to the growth story of Yang Kee Logistics and how the company has succeeded to become a leading total logistics player globally. This is followed by a warehouse tour to DG facility and a showcase of Contract Logistics capabilities.

Venue: Yang Kee Logistics
8 Jurong Pier Road Singapore 619180
Sharing of ideas, knowledge and network

September is not complete without SCAF. In this year’s SCAF happening during SCW, guests will be treated to a series of dialogues and presentations that allow them to learn about different sectors under the supply chain umbrella.

SC & Logistics Education Development Dialogue

The SC & Logistics Education Development Dialogue is co-organised by Supply Chain Asia (SCA) and SkillsFuture Logistics Sector Coordination Team (SCT) comprising of five polytechnics, Institute of Technical Education (ITE) and Centre of Innovation of Supply Chain Management (COI-SCM). The dialogue will discuss the educational and training options in logistics and supply chain management available to full-time and part-time students at all the five polytechnics and ITEs. In addition, the panelists will also share details of the new Logistics Skills Framework and how different stakeholders, like individuals, employers and training providers, can use the framework. The emerging trends in logistics and supply chain management, such as Industry 4.0, robotics, will also be discussed. Last but not least, the institutions will share ideas on how they can enhance the linkage with the industry.

Moderator: Mr Paul Lim, Founder/President, Supply Chain Asia

Panelists:
Mr Wang Jianguo, Director, Republic Polytechnic
Ms Cheryl Wee-Teo, Assistant Director, Temasek Polytechnic
Mr Peh Wee Leng Director, School of Business & Services, ITE College East

CPO Dialogue - Industry 4.0 and its Impact on Procurement

Industry 4.0 will see the widespread integration of technologies and physical processes to revolutionise the manufacturing space, creating “smart factories” that push companies to higher-value manufacturing. Multinationals and larger companies have started implementing such technologies. What are the trends and speed of change we are seeing with implementing Industry 4.0? Is today’s Procurement geared up to be part of this revolution? Or will the Procurement function evolve to be yet another supporting function? Our panel of CPOs from renown international companies will offer a perspective on the topic, and share insights on their organisations’ transformation to Industry 4.0.

Moderator: Mr Lin Chee Kin, Principal Consultant, EZ Solutions

Panelists:
Mr John Lim, General Manager, Supply Chain & Procurement, APMEA, ConocoPhillips
Mr Tiow Wei Yeong, Global Procurement Director, Diageo
Mr Thomas Holenia, President, Henkel Singapore
Mr Graham Wright, VP of Procurement, IBM

Supply Chain Financing 2.0: Technologies and Trends

by Ms Daphne Ng, Founder & CEO, JEDTrade

The Future of Digital Procurement

by Mr Erich Winsloe, Head of Operations, AP, SAP Ariba

Panel Review on Adaptive Procurement

As industries and companies evolve to address the changing economic challenges (like Industry 4.0), the procurement function will have to adapt to the new norm. Are procurement organisations nimble enough to adapt to the newer environments? Are there challenges that can hold back procurement from keeping pace with industry transformations? What are some of the steps to mitigate these challenges and to create a more dynamic and adaptive procurement function? Our panel of experts and practitioners are drawn from a broad spectrum of the industry, and will offer their experience and views on how the procurement function can move in sync with, and even take the lead in some practices within the industries.

Moderator: Mr Lin Chee Kin, Principal Consultant, EZ Solutions

Panelists:
Mr Michael Koh, Head of Procurement, Asia Pacific, Dimension Data
Mr Philippe Ruffier, Supply Chain Director, Mundipharma
Mr Erich Winsloe, Head of Operations, AP, SAP Ariba
Oil and gas companies operate in dynamic and complex environments, where they face constant challenges especially in terms of supply and demand. Now with the oil prices at historic lows, and with no signs of early recovery, the time has come to evaluate the supply chain and procurement techniques and costs. Oil and gas companies need to focus not only on their product supply chains, but also on the non-hydrocarbon supply chains that handle the parts, materials and services required to run the business. The non-hydrocarbon supply chain is very critical to deliver the equipment and services required to find, extract, refine and finally market the oil and gas. Procurement and supply chain strategies are set to be in the forefront of critical issues plaguing oil and gas companies especially with the current downward spiral of oil prices.

We have found that oil and gas supply chain practices clearly lag behind (in certain geographies) those of some other industries that use advanced techniques such as optimised inventory management, collaborative supplier relationship management and so on. In this article, we provide a brief insight about the opportunities and areas where supply chain practices can be improved amongst the IOCs/NOCs, and highlights other industries that companies in the oil and gas space can learn from, including improved service to internal customers and reduced costs.
“I found Genco’s application of JDA Warehouse Labor Management to be a great example of how perceptive individuals, when digging into a project, can yield insights and performance improvements beyond the original intent.”

Clint Reiser, Senior Analyst
ARC Advisory Group

Start Reshaping your Warehouse Labour efficiency with a Self-Assessment: jda.com/wlmsa
To achieve significant increase in the profit margin, oil and gas companies should look at the following supply chain and procurement opportunities in order to deliver better supply chain value:

- Supply Chain Market Intelligence
- Supplier Relationship Management
- Supply Chain Solutions, Talent & Technology

Supply Chain Market Intelligence is the process of acquiring and analysing information in order to understand the present and future market; support current and future sourcing and market sector strategy execution; and enable the business to better anticipate changes in the external marketplace and react before others do. Supply Chain Market Intelligence is key to any industry and more so for the dynamic oil and gas industry. Effective supply chain market intelligence helps oil and gas companies deal with strategic supply chain challenges such as constrained capacity, infrastructure and volatile markets. It also helps companies make the right decisions about which markets to buy from, how to determine the right price to pay and what benchmarks and targets will provide the right competitive edge.

The oil and gas industry is heavily dependent on suppliers to provide complex services and critical equipment to support on-going projects and operations. More than often, contract management and supplier relationship management are not up to the mark, and as a consequence, the oil and gas companies take on supplier risks. To improve supplier relationship management, the companies should adopt a method of supplier benchmarking. Oil and gas companies need to measure the robustness and performance of different contractors for various spend categories, and constantly seek dialogue with them so that the suppliers are in unison with the necessary obligations in terms of safety, training, equipment and staffing requirements. For contract management, we have seen some oil and gas companies with non-efficient processes such as non-compliance of contracts with established suppliers.

Another method that can help the oil and gas company in pricing negotiations is the use of the Should-Cost model, and in addition, the Total Cost of Ownership (TCO) model. In the former, the total acquisition cost for a particular equipment or service is arrived at by taking into account the design cost, supplier operating cost, supplier margin, and transaction and acquisition costs. The Should-Cost model for different spend categories will empower oil and gas companies to effectively negotiate contract terms and conditions with the suppliers. In the case of the TCO approach (more suitable for long lead and critical capital intensive equipment), the different costs including the acquisition costs, and operation and maintenance costs are arrived at before choosing the right supplier at the competitive price.

Modern supply chain solutions should cater for inventory management; demand forecasting, contractor management, master data management and e-procurement. Demand forecasting/planning coupled with inventory management and e-procurement form the crux of the oil and gas supply chain strategy. Oil and gas focused supply chain technology solutions have completely revolutionised the way supply chain planning is being carried out in different industries. There has been a paradigm shift in the way oil and gas companies have embraced e-procurement or shown interest in e-procurement systems.

Even with the best in class supply chain processes and systems, without the right people, the best in class supply chain practice cannot be sustained nor can the full benefits of supply chain really be enjoyed. As with any other industry, the oil and gas industry also has to grapple with the shortage of supply chain and procurement talent due to an aging workforce and growing skill shortages. Some of the measures that can be effectively adopted are training and grooming of talent in critical supply chain functions, establishment of supply chain centre of excellence and industry-academia collaboration to nurture supply chain talent.

The IOCs/NOCs to improve and deploy best in class supply chain practices can adapt and/or implement some of the practical measures listed below:

- Understand the “total value” of major spend categories. This requires thoroughly identifying costs and options across the supply chain for each category and determining appropriate interventions (e.g., seeking new supplier, changing specifications, altering contract terms)
- Build custom fit procurement processes that provide better clarity, engage suppliers early in the process. Moreover follow through to execution and into operations
- Manage risks across the entire spending portfolio—not just within individual projects or commodities, or splitting capital from operations spend
- Proactively manage the supply base, select relevant suppliers, focus on alignment and sustainability (i.e., dynamic relationships), and ensure company ownership and accountability is clear to suppliers
- Institutionalise the capabilities required for supporting procurement and supply chain activities. Today, these scarce skills are at a premium. In the next few years, it will be just as important to cultivate the right talent here as it will in the most critical technical and operational areas

Going forward, we realise that even though some of the supply chain best practices have trickled through the oil and gas industry, there is always still scope for further improvement. Better demand planning and optimised inventory management will help oil and gas companies maintain oil and gas equipment uptime and hence benefit from improved productivity. Improved spend category management and collaborative supplier relationship management coupled with increased automation of transaction processing, will lead to sourcing savings and identification of secondary saving opportunities. Effective deployment of supply chain best practices is the way forward for the oil and gas companies to reduce costs in this era of low oil prices and to focus on oil and gas production and exploration in the most optimised way. It will be really interesting to see how oil and gas companies can effectively manage local content sourcing coupled with the adoption of best in class supply chain practice in 2017.

About the Author

Having a background in Engineering and coupled with MBA, Vinod Raghothamarao is a supply chain and operations strategy and management consulting professional with 14+ years of work experience across different industry sectors. He has worked on supply chain and procurement strategy and implementation consulting assignments across USA, Latin America (Brazil), Europe, Middle East, Africa and Asia (including South East Asia).
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NO TIME TO WASTE IN E-COMMERCE

It is no secret that Singapore’s e-commerce landscape is thriving. The evidence is out in the open. Just this year, Alibaba partnered Lazada Singapore to launch its LiveUp loyalty programme that pools benefits from key lifestyle partners, such as Netflix, RedMart, Uber and UberEats, to rival Amazon’s launch of Prime Now service in July. Another e-commerce firm Qoo10 also launched Quick Delivery — a service that allows online shoppers in Singapore to receive products bought from local merchants within three hours of purchase.

Although internet sales in Singapore amount to only US$700m a year compared to China’s US$100bn, e-commerce firms say Singapore is a good base to test-bed strategies before they launch or expand into other Southeast Asian markets. Numerous global e-commerce companies have already set up operations in Singapore in order to penetrate the region.

Due to the increase in competition, retailers and distributors are under increasing pressure to deliver consumer products and perishables into cities, often within narrow timeframes. This has created a need for adequate delivery sites in and around dense urban areas to accommodate the growing consumer demand.

A strain on the traditional supply chain

As expected, preparing delivery operations to thousands of individual homes compared to stores is a challenge. Add the factor of a short delivery window and it seems an almost impossible task. As a result, distributors have altered their supply chains to augment the traditional logistics platform that relied on regional distribution, to one that includes an urban logistics schema with locations that serve consumer hot spots.

Before e-commerce, supply chains handled old-school, brick and mortar retail, where products arrived at warehouses in bulk, were moved around in pallets and selected by the case, and were shipped out to store in bulk. With e-commerce, it requires the process of receiving bulk orders, then inventorying and picking those SKUs as individual products. Therefore, e-commerce retailers have to find a way to standardise and synchronise business processes to have real-time access and insight to inventory movement. Often, with dozens of suppliers, multiple warehouses, and an extensive number of sales channels, the chances of a misplaced order are much higher.

But new technologies, such as order fulfilment innovation, have helped integrate the front-end and back-end of online retail. The back-end process is now a collaborative effort due to the creation of automated software and real-time fulfilment data. The alignment of important touch-points in the supply chain has reduced inefficiencies and helped...
20 of the 20 Top Logistics Service Providers
Get Better Results
identify redundant processes. However, completing the last mile in a short window in a densely populated city such as Singapore remains an unsolved challenge.

Managing change in consumer behaviour

Modern consumer behaviour has altered so drastically over the last few years. In Singapore alone, around 82 per cent of the country’s 5.7 million population access the internet on a daily basis. The lion city also has the highest internet speed in Southeast Asia region at around 18.2 mbps on average.

While having quick internet access has its many positives, it has also encouraged dependence on instant gratification. Any public information required can be googled online within seconds, and communication is easily carried out via Facebook, Whatsapp and even any web feedback form. Similarly, when it comes to online shopping, consumers want their purchase as soon as possible, if not immediately. Regardless of how difficult a two-hour or three-hour delivery windows may be, e-commerce are forced to offer these services to stay competitive.

In addition, customised e-commerce experiences are in demand. According to CBRE’s recent global survey, Millennials: Myths and Realities, when they do shop online, millennials prefer to have their purchases delivered to their homes. One-third of those surveyed always use this method; two-thirds use home delivery “always or very often.”

There are regional differences, however. The most marked result is a higher preference in Asia for third-party collection and office delivery. In most Asian countries, there is a close correlation between the ability to receive goods in the office and a preference for that method. Almost half of millennials surveyed in India and China, for example, opt for office delivery.

Crafting personalised e-commerce experiences and providing alternate delivery locations are helping retailers boost customer satisfaction, as backed up by the UPS Pulse of the Online Shopper study. Analysing what drives an online shopper’s full path to purchase, the global study shows that 48 per cent of Asian online shoppers embrace new shopping trends. The market has the second highest adoption of curated subscription services – the tactic retailers use to help consumers discover products based on their preferences and purchase history.

What’s next in online shopping?

It is obvious that last mile is a very challenging component in the supply chain. Customers expect speed and convenience, and logistics operators are compelled to give them what they expect in order to survive in this competitive business, especially in a small market such as Singapore. This is where technology comes into play. Given the abundance of information on hand and massive amounts of data, companies are able to improve delivery services and become more efficient.

The search for efficiency within the last mile continues to evolve as innovative strategies take shape to meet growing consumer demands. As millennials continue flocking to urban areas, they will drive the transformation of the supply chain with their spending habits. The consumer landscape as a whole has expanded rapidly with the help of e-commerce, and this will undoubtedly continue at a far more rapid rate.

Furthermore, big data has come into play as technological innovation allows retailers and industrial operators to better understand the needs of their consumers. Altogether, this is creating a perfect storm for city logistics to become an even more critical component in the supply chain. The industrial operators that want to find the right balance between their supply and demand fundamentals need to take a closer look at these growing trends to create a multi-faceted last mile strategy that keeps their customers happy and delivery costs low.

Source: CBRE
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DR ROBERT YAP
EXECUTIVE CHAIRMAN
YCH GROUP
PUSHING SUPPLY CHAIN TO GREATER HEIGHTS

Drive down the Pan Island Expressway towards Corporation Road exit and odds are, you will notice a distinctive building with a blue U-shaped logo that stands out in the distance. Approach the building at 8 Bulim Avenue and you will see the intricate design of Supply Chain City (SCC), a newly opened facility spanning two million square feet.

While it also represents the headquarters of YCH Group, a leading integrated end-to-end supply chain partner, it is designed with the industry in mind, not just to benefit one company.

“The aim of SCC is to create an ecosystem for all supply chain and logistics players to come together and collaborate with one another. I am very passionate about helping to push the industry forward, and I see SCC as an important piece of the puzzle that will make a difference in this aspect," says Dr Robert Yap, Executive Chairman, YCH Group, the mastermind behind SCC.

This issue of Supply Chain Asia magazine will touch on the iconic history of YCH, as well as Dr Yap’s dreams for SCC and hopes for Singapore’s supply chain and logistics industry.
The boss’ son and the coolie

Anyone familiar with YCH knows the story behind the growth of the company. YCH, taken from the initials of the late founder, Mr Yap Chwee Hock, was established in 1955 as a passenger transportation company. The company, however, faced a crisis in 1977 when it lost its main contract, which forced Dr Yap to join the company and help out even though he initially had no intention of joining the family business after graduation. Instead of simply looking to replace the main contract partner, Dr Yap decided to focus on higher margin cargo transportation business.

“While I first joined the family business, other workers looked at me as just the boss’ son, but I was truly determined to help turn the company around. When we won the Port of Singapore Authority (PSA) tender project, it was a good start to finally make use of the more than 100 idle trucks in possession. But more than that, it was a crucial point for us to use this opportunity as a launchpad to rebrand YCH,” says the Executive Chairman.

In the 70s, most of the cargo or freight are not palletised. Additionally, YCH drivers know how to transport passengers, but not how to move or handle the cargo.

“This was when I decided to make an example of myself. I rolled up my sleeves and started to carry the cargo into the trucks. When they saw me on the ground sweating and getting my hands dirty, that was when they joined in and helped to move the cargo. I still remember that hardship to this day, but that hardship helped in creating a good atmosphere and a positive working culture,” reminisces Dr Yap, who refers to the feeling as a strong gotong royong spirit – Malay expression to describe a community that mobilises itself to help each other.
When YCH received notice that its DistriPark will have to be torn down to make way for a train track, the Singaporean Executive Chairman decided that this is the chance to transform the company's headquarters.

“Over time, we transformed YCH DistriPark from an old-fashioned refurbished factory, into one of the most modern distribution parks in the country. It initially felt like losing a baby because we were very attached to it. But after some sleepless nights, I decided to turn the situation around. Should we just buy a piece of land and build the exact same thing? No, this is the time for us to build something better to put us on a different level,” says Dr Yap.

Instead of just building another headquarters facility, Dr Yap decided to develop the idea of bringing the different supply chain and logistics players as well as professionals together to connect, collaborate and form partnerships with one another. He developed the idea to create a “nerve centre with a human-focused environment designed for social interaction and knowledge exchange.”

“So SCC is designed as an ecosystem for all the right players to come together. This is why SCC is filled with spots for people to connect and host meetings. Currently, we have the foodcourt ready, but soon, we are looking at setting up a gym and cafes. We want people to find everything they need in SCC, we want people to live and breathe supply chain,” says Dr Yap.
With all the related supply chain partners and support systems under one roof, SCC aims to meet the following objectives:

**Living Supply Chain:** SCC needs to play its part by providing first class operations for the future of Singapore. With the country’s limited land and talent supply, SCC wants to encourage adoption of highly automated systems and future-ready solutions (such as robots, automated guided vehicles, and drones) to lead the transformation of a supply chain landscape.

**Experiential Workplace Learning:** Learning is a vital component to get ahead in the professional life. In order to boost talent in Singapore, the industry needs to embrace upgrading new and relevant skillsets. One institution at SCC is Supply Chain and Logistics Academy (SCALA), which aims to provide bite-sized learning programmes (such as modules for inbound/outbound, inventory management, familiarity with different picking technologies and ASRS).

**Asia Network of SC Thought Leaders:** Having a network of industry thought leaders is crucial to lead, advise and mentor young talent. This is where trade associations, such as Supply Chain Asia (SCA), come in. SCA encourages and supports Asian thought leaders by providing them with networking opportunities and the latest industry news. They also represent the community of supply chain and logistics professionals in the region.

**Reinvent Tomorrow:** Technology-focused companies, such as Y3 Technologies, that are focused on creating and introducing new, innovation solutions and ideas for the industry are highly welcomed at SCC.

**Nurturing Disruptive Innovators:** SCC is also opened to start-ups that aim to join this ecosystem and take advantage of the facilities and knowledge available. Supply Chain Angels, YCH’s venture arm, leads the way to ensure start-ups based at SCC have the right support that leads to success.
More than just the face of YCH

Dr Yap is not only the Executive Chairman of YCH, but also the president of Singapore National Employers Federation (SNEF), Singapore Chair of ASEAN Business Advisory Council (ASEAN BAC), founding chairman of SCA as well as chairman of SCALA. What motivates him to be so heavily involved in so many initiatives?

“The supply chain and logistics industry has given me everything to get me where I am. So I enjoy using my expertise to help others and to play a part in helping Singapore on the world stage by producing results and top talents. For example, for ASEAN BAC, I am excited to push our local small and medium enterprises (SMEs) to go global and succeed outside,” says Dr Yap.

For SNEF, Dr Yap believes “in the importance of tripartism”: Working together portrays an image of a very progressive country and with harder push for more investments to come in, the industry will grow and subsequently provide more jobs.

“I understand the importance of SNEF. It helps to ensure harmony in the industry. It also ensures that employers do not take advantage of workers and it promotes an inclusive society. I find my role quite rewarding to ensure tripartism remains an important pillar in Singapore,” says Dr Yap.

Dr Yap’s support for the industry began years ago, and he was one of the first people to support the formation of SCA by founder and president, Mr Paul Lim.

“When he approached me for SCA, I thought it was a good idea. At the time, the community was mostly only made up of logistics companies and a few brandowners. It was a very competitive environment and there is a general lack of collaboration. I did not expect SCA’s profile to grow this big after just 12 years. I credit Paul’s motivation and passion for the industry, which makes him the right guy for this mission. I supported him wholeheartedly,” says the founding chairman.

Keeping it in the family?

“I do hope YCH continues to stay as a family business. Ultimately, the business is very diverse. Our business involves logistics, technology, human resources, finance, training and more. They can choose any industry focus. However, I won’t force them if they do not have the passion for it. When you commit to something, you just want to do it well. Even my own father did not force me into the business,” says the father of six.

Referring to his father as the most influential person in his life, Dr Yap was ready to leave after the company found its footing again, but his father wanted him to stay.

“I did not expect myself to join the family business. I found it boring at that time because it was just a transportation business. When my father asked me what it would take for me to stay, I jokingly told him to retire. Amazingly, he did and I took over the company. The rest is history,” says Dr Yap, who initially wanted a job in the banking or technology sector.

Without his father, Dr Yap may not have ended up in supply chain and logistics, a sector which he has fallen in love with and dedicated his professional life to.

“After 40 years in this industry, I am still learning so much. This industry has so much potential and future, and for people who are ambitious and willing to make a difference, this is the industry for them to make something happen,” says Dr Yap.
MR TEE SENG CHUAN
MANAGING DIRECTOR
KION SOUTH ASIA AND
EXECUTIVE DIRECTOR
LINDE MATERIAL HANDLING
According to a new market research report published by MarketsandMarkets™, the automated material handling equipment market is expected to be valued at US$48.31bn by 2023, rising at a Compound Annual Growth Rate of 7.8 per cent between 2017 and 2023. The report also mentions robots accounting for the largest share of the automated material handling equipment market in 2016. These results show the importance of technology and innovation adoption in the industry, and companies need to get on board in order to keep up with the competition. Linde Material Handling understands this, which is why the company is fully invested in innovation.

“For Linde Material Handling, continuous product innovation is the lifeline of the company. We invest in lots of market studies and researches to ensure that we remain the trendsetter in the market. Take the example of Linde Robotics where we have the series production driverless forklifts using SLAM (simultaneous localisation and mapping) technology,” says Mr Tee Seng Chuan, who double-hats as Managing Director, KION South Asia and Executive Director, Linde Material Handling.

In this issue of Supply Chain Asia, Mr Tee shares his thoughts on the current mergers and acquisitions (M&A) landscape, the company’s operations in the region, and the talent situation in the industry.
According to your bio, you have more than more than 20 years of experience in the industrial products and solutions market. What is it about the industry that makes you stay?

This journey has been really interesting for me as I have always represented top brands in the market. It is my job to upsell the product or solution to maximise the value. This interesting challenge is what keeps me in the industry.

You are currently handling two portfolios. Can you share how the two roles overlap each other?

While we have operational synergies in these entities, they are structured quite differently to accomplish the different goals we have in the market.

KION South Asia is a platform to support the KION Group multi-brand approach into the markets. Here, I ensure that Linde, STILL and Baoli brands are well represented in the markets through various channel to market. While there are sometimes competition between brands in the market, there are also joint efforts between brands to win in the market.

My portfolio in Linde Material Handling is to lead direct sales and service operations in Singapore, Malaysia and Thailand. In this capacity, I have to ensure that we are able to serve our end-customers according to their needs in the full value chain – whether it is about new or used forklifts, sales or rental, and contracted service or ad-hoc service.

KION recently acquired Dematic. Is the company looking at more M&A opportunities? Can you comment on the increasing number of M&A in the supply chain & logistics industry?

While I cannot comment on KION's future M&A opportunities, it is clear that as the industry matures with many fragmented players in the market, there will need to be further consolidation. The key drivers for such M&As include sales channel or market coverage expansion, product or solution portfolio enhancement, and economies of scale to be more competitive in the market.

How does Linde Material Handling stand out from its competitors?

Linde Material Handling is often recognised as having the most innovative and best performing forklifts in the market. This is due to the long standing track record of having unique selling points in the product design, which translates into advantage and benefits for the end-customers above and beyond the market standards.

This includes productivity increase, energy savings, safety, ergonomics and comfort, where Environmental, Health, and Safety (EHS) aspects are becoming more important today and in the future for the supply chain and logistics industry.
Can you share more about Linde’s operations in the region? (e.g. are the equipment built here, how many facilities are there)

Since our company originated in Europe, we have several production facilities and R&D centres in Europe. In Asia Pacific, our regional headquarter is in Xiamen, where we have an established production facility and R&D centre established in 1993. This facility mainly caters to the needs of the Asia Pacific market as well as emerging markets around the world. Linde is well represented in most countries across Asia Pacific via direct entities as well as channel partners.

How important is innovation adoption for Linde?

For Linde Material Handling, continuous product innovation is the lifeline of the company. We invest in lots of market studies and researches to ensure that we remain the trendsetter in the market. Take the example of Linde Robotics where we have the series production driverless forklifts using SLAM (simultaneous localisation and mapping) technology.

Another example would be the use of new and renewable energy, including Li-Ion, Fuel Cell and even hydrogen driven forklifts.

We generally do not meet many Asians in very senior executive roles for European companies. Can you share how you rise to the top?

I believe that it starts from the company culture where we try to promote from within the organisation and to have local talents running the business as much as possible.

Personally, I believe that proven track record of strong execution, commitment to the company and the overall cultural fit are important elements for any company and KION Group is no exception.

How would you describe the talent situation in the supply chain industry? In your honest opinion, are there sufficient talent here?

Supply chain is quite a broad industry and within it is an area of material planning, procurement and handling/logistics. Honestly, I think that there is limited organised education and industrial training on this subject matter. Most of the knowledge are acquired through years of experience in the work life – learning by doing to be more specific. Therefore, most ended up being generalists as opposed to specialists in the industry.

With more of supply chain operations being managed autonomously, what must the next generation of supply chain talent offer to remain relevant?

I believe that everyone in the supply chain operations needs to continuously move up the value chain and perform value-added tasks as opposed to repetitive tasks which can be automated. The next generation of supply chain talents would need to continuously combine operational know-hows with top technologies (both hardware & software) in solving problems. Whoever can provide solutions that are scalable and flexible, and yet customisable for specific applications, will win in this competitive landscape.
TAKing AIM At Value

Avoid OverConfidence And look AgAIgn At Risk

by Dr Janson Yap, Regional Managing Partner, Deloitte Southeast Asia and Asia Pacific Risk Advisory

Most companies’ mission and vision statements are focused largely on growth and profitability on a sustained basis. At the same time, we operate a world where change continues to accelerate at an unprecedented pace.

As the business world continues to evolve with technological advancements and the risks associated with these changes, companies that have not taken steps to address these new and unfamiliar risks may experience disruptions to their business and operating models. Kodak, Compaq, MCI Worldcom, and Eastern Airlines are some well-known examples of companies with historical legacies that fell prey to technological disruptions.

Recent findings further reinforce the view that most companies are not ready to address the risk categories arising from the disruptive challenges and changing competitive environments. As a consequence, the aspirations of value encapsulated in the companies’ missions are compromised and not achieved.

What is risk?

Risks exist in every human endeavour and we are constantly exposed to varying degrees of risks. While some of these risks may seem trivial, others may make a significant difference in the way we live our lives. The ISO 31000 (2009) definition of risk is the ‘effect of uncertainty on objectives’. In this definition, uncertainties include events (which may or may not happen) caused by ambiguity or a lack of information. The common definition is “the possibility that something bad will happen.”

New game rules on the future of risk

While companies recognise the presence of risks, they often choose not to explicitly think about the associated risks and hope that the uncertainty does not happen to them. Most business strategies tend to focus on developing a roadmap and business case towards a positive aspiration, starting from a current baseline and working through a series of iterative steps. Risk assessment and mitigation is either a side conversation or not considered at all in strategy development.

However, the good news is that the strategic conversations around risks are changing. Today’s leaders view risk as a possible tool to create value and achieve higher levels of performance.

The ten risk trends

The influx of technology advancements has certainly propelled the world into a great transition from the physical to digital, bringing along a fair share of challenges, threats and risks. Organisations now require a proactive approach towards risks to mitigate their potential and develop a countermeasure strategy.

An overview of the present-age risk landscape indicates 10 risk trends:

1. Innovation paves way for regulations
2. Tech-driven cognitive acumen
3. Extensive and integrated controls
4. Increasing market collaborations and need for mutual risk management
5. Risk transfers and countermeasures expand in application and scope
6. Risk analysis on behavioural factors
7. Recognising disruptions at the C-Suite level
8. Increasing need for periodic risk vigilance
9. Risk as a means to drive performance
10. Amplifying risks to build reputation

The future of risk has arrived

In a Deloitte survey on global risks, companies responded that they are unprepared for risks beyond their control and this includes third party or extended enterprise issues (47 per cent), competitive attacks, hazard or catastrophe (44 per cent). They appear to be more prepared on risks regarding regulatory compliance (69 per cent) and employee / employer misconduct (> 60 per cent). Conduct risks and insider threats are specific use cases on the risk intelligent agenda. Reputation risk is identified as a more important risk than any other risk category by 88 per cent of surveyed executives.
Another survey listed economic conditions, cyber security and increased competition as the top three concerns keeping Asia Pacific risk managers up at night. Conduct risk, which can cause significant damage to the brand and creating reputation risks, occupies the fifth slot in the survey. This finding is consistent with a Deloitte/Forbes Insights 2016 survey which lists economic trends, business model and Reputation/Competition as the top three risks.

Cyber risk
“Russian spies behind 2014 hacking of Yahoo accounts: US”, “Intelligence agents whose jobs were to catch cyber criminals”, “N.Korean group likely behind cyber attacks: Semantec”, “Cyber thief who broke into Yahoo” are examples of news headlines with a common theme - information theft and abuse of privacy. These hackers are able to penetrate into corporate and governmental systems to hack, steal and abuse the information stored in the servers through sophisticated techniques.

Attacks of cyber nature are real threats to organisations’ integrity. Systems engineers and risk practitioners in the digital economy are working overtime to help their clients secure their infrastructure environments while vigilant in their approach in monitoring cyber threats.

Conduct and reputation risk
Ethical conduct in regulated industries like Banking and Securities, Life Sciences and Healthcare remain a priority and challenge. Unethical collusion between doctors and pharmaceutical companies promoting their drugs has come under scrutiny in recent years. The rigour of compliance in banking is even more stringent after continuous mishaps of financial crime and crises over the years. Although regulators subject banks and financial institutions to vigorous audits, non-compliance and significant breaches still do happen.

Laws, such as Anti-Bribery, Anti-Corruption law (ABAC) and Foreign Corrupt Practices Act (FCPA), are governing the commercial behaviours of organisations to promote free and fair competition. Violations of these Acts lead to conduct violations and reputation risks.

Acts of terror risks
The early recognition of terror risks was the coordinated attacks on 11 September 2001. However, such attacks are changing into multi-faceted ones, some planned and coordinated while others, randomised with individuals who embrace certain ideologies. In essence, these attacks can happen anytime, anywhere. The attackers lie beneath the surface and are difficult to detect. This low frequency and high impact black swan is truly a concern of all governments and security agencies across the globe.

Where to from here?
With risks becoming ever more dynamic, it is evident from the survey that not all companies are ready to deal with the changing nature of these threats. Hence, companies have to take a more measured approach, and avoid being overconfident.

It is about time organisations assess their strategic and operational models and make necessary improvisations. Risk has become inevitable and neither aversion nor taking flight is an option. Therefore, a smart approach to keep up with the trends and adopt a proactive risk management strategy, and hence, formulating the Risk Intelligent agenda, is essential.

In addition, despite the challenges that risk brings, it can also be used as means for groundbreaking innovations, as a performance accelerator, to create USPs and gain a cutting-edge in the pool of competitors. The Strategy Implementation Effectiveness Evaluation (SIEE) framework developed to address strategy implementation failures introduces the notion of continuous scanning and monitoring of risks in the business landscape to ensure strategy fitness during its implementation.

It is time to be risk intelligent, get smart in the process and be more successful. Only then will value be realised.

About the Author
Janson is the Regional Managing Partner of Risk Advisory practice in Deloitte Asia Pacific & South East Asia (SEA). He has more than 19 years’ experience providing management consulting and advisory services. In his capacity as management consultant, he has led several Business Transformation programmes, analysing and developing several go-to-market studies, development of new operating models, human capital programmes and technology implementations.
With profitability, compliance, globalisation and risk management high on executive agendas, demand for contract management is on the rise. Contract management includes negotiating the terms and conditions, as well as ensuring compliance with the terms and conditions, continual documentation and modification of the contract during its execution. Contract management is summarised as systematically managing contract creation, execution, and driving maximum financial and operational performance efficiency.

What do contracts mean?

According to Aberdeen Group study, 42 per cent of enterprises see that the top driver for improvements in managing contracts to better assess and mitigate risks. Sales contracts affect top line revenues. Supply contracts impact bottom-line results. Contracts are historically seen as legal documents that protect against the worst-case scenarios. In fact, the fundamental of contract management is to think from the customer’s well-being, not from the buyers or sellers. This reflects the ideal state where buyers and sellers work together to manage the lifecycle of the contract and minimise risks that result in project delays and unplanned cost.

It is reported that an overwhelming majority (95 per cent) of the Best in Class enterprises have standardised and formal contract lifecycle management processes are in place. They develop standardised automated contract creation methods to enable business users to create contracts based on pre-approved business rules. In short, a centralised organisation structure managing the contracts is a key characteristics of these Best in Class enterprises.
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Looking to procurement

From procurement leaders, Local Government Association (LGA) noted that almost £30bn was being spent on third-party contracts. It identified that better management of contracts could save local authorities between three and 15 per cent of contract value. From the LGA report, it is clear that good contract management is more than ensuring suppliers meet their contractual obligations. It also helps to identify and manage buyers and their suppliers’ risks.

In the study, Mr Rob Woodstock, a managing director from Accenture, says the same lesson is true for all organisations. A holistic approach to contract management can improve collaboration among the procurement, finance, legal, and sales teams, which helps shorten time-to-value, accelerate contract cycles and identify new revenue opportunities. Many times, contracts are dispersed throughout the organisation and stored in various departmental databases, thereby creating unnecessary complexity. These contracts may have legal oversight, however there is no procurement involvement. The fragmented contract management means organisations miss many efficiency opportunities. It also leads to difficulties understanding the pricing schedules across multiple contracts. They may find a large number of contracts are outdated and there is no visibility for when contracts are up for renewal. Hence, executives are looking to procurement for commercial governance to set contract standardisation to deal with different types of suppliers and their different types of contracts. Hence, procurement needs to be fast and agile to manage the contract lifecycle as a centralised function.

Embracing continual improvement in contract life cycle management

Further insights from Gartner share that Contract Lifecycle Management is evolving from an operational record-keeping system, primarily used for legal audit purposes, to an enterprise-level core system addressing business risk, costs and the pursuit of revenue maximisation. Chief Information Officers (CIO) and line-of-business management need to identify the right solution for their needs.

Contact Lifecycle Management is not a practice for the legal department, nor is it just a big-organisation issue. It requires the focus of CIOs and IT leaders. Although it is not an IT issue, it is fast becoming a big data issue for IT to support. Chief procurement officers, sales and supply management must take responsibility for the organisation’s Contract Lifecycle Management process competency.

In an article, EMC consulting discovered more than US$35m in uncollected royalties, which represented 10 to 20 per cent of a large pharmaceutical company profit. In a telecommunications company, a maintenance contract can include payments for supplier materials and equipment when used on site. The supplier kept tools running continually on site and profited nearly US$50m. This highlights the importance of managing the contract from start to renewal or end.

Accordingly to Questys, there are nine stages in the Contract Lifecycle Management. The nine stages are contract request, authoring, negotiation, approval workflow, execution, obligations management, amendment, audit and reporting, and renewal. A holistic approach to contract management is to think from the customer’s perspective and continually improve the quality of each of the nine stages’ outcomes.

Figure 1. A Global ICT Reselling Contract Structure involving customer, system integrator, service provider and hardware supplier
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In the ICT outsource model, it doesn’t mean outsourcing the project governance to the suppliers and partners alone. Customer needs to keep strong and capable in-house competencies to manage the suppliers in the ecosystem. The success of project delivery should not be on penalties and liabilities clauses. Contractual incentives should be designed to motivate the suppliers to work together and complete work ahead of delivery schedule, instead of competing for bigger revenue when others fail. Therefore, the customer procurement and delivery teams play an important role to manage the supplier ecosystem to be healthy throughout the contract lifecycle.

In an article published in APAC CIO Outlook, the future procurement sits on a myriad of data connecting the organisation to external. We are data scientists that draw business intelligence out from the mass amount of data, including contracts. We architect the business processes for software defined solution to improve productivity. We train our internal stakeholders to be smarter buyers than we are. We become a professional problem solver and lead business improvement as a champion. No matter how we change, we have to quantify our efforts from productivity, financial, quality and timeliness perspective. Procurement will be a profit centre and drive innovative initiatives from a portion of our cost optimised for the organisation. Hence, it is imperative that all procurement leaders share their experiences with the industry, and collaborate with C-Suites to make procurement awesome in this era of technology transformation.

Learning from project delays

From the Civil Service College Singapore report, the Singapore Sports Hub’s financial close was initially planned for August 2007, with construction target completed in 2011. Many of Sports Hub’s delays were unavoidable in the context of the 2008 economic climate — first, unprecedented global construction inflation in early 2008, followed head-on by the global financial meltdown that September.

With banks reluctant to lend, the Sports Hub was in the same boat as many Public–Private Partnerships around the world, each facing immense difficulties in securing debt finance given the tight liquidity constraints. The hub was then expected to be ready by 2013 for the 27th Southeast Asian Games, to be hosted in Singapore. Due to the unexpected delays, it had to withdraw its hosting rights. The Singapore Sports Hub began operations from mid-June 2014 when it hosted a series of sporting events. However, it faced a number of teething issues, such as the poor state of the stadium’s pitch and a leaking roof. After resolving these problems, the Singapore Sports Hub was officially opened by Prime Minister Lee on 25 July 2015.

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About the Author

Michael Koh is the Head of Procurement, Asia Pacific at Dimension Data. As a member of the NTT Group, we accelerate our clients’ ambitions through digital infrastructure, hybrid cloud, workspaces for tomorrow, and cybersecurity. Prior to his role, Michael served as the Head of Procurement, Asia Pacific, at T-Systems and Schneider Electric ITB.
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Swedish brothers Jonas and Robert af Jochnick quit their jobs in 1967 to start Oriflame; a nature-inspired beauty products company. They were discouraged by peers and family for giving up a stable career and plunging into the venture. Despite a fragile start, they persevered and worked tirelessly to build the business. Today, Oriflame is a listed company publicly traded at the Stockholm Nasdaq Exchange, and the world’s leading beauty company selling direct.

Deeply rooted in the history and heritage of the company, Oriflame has committed to inspire and offer people similar opportunities for achieving their dreams. Individuals can become Oriflame’s direct-selling consultants with low entrance fees and no risk; developing their career according to personal goals and circumstances. More than three million independent consultants in over 60 countries now market Oriflame’s products, and this network continues to expand.

Broadening the network to China

In 2006, Oriflame became the third foreign cosmetics company to be granted a direct sales license in China. Part of Oriflame’s strategy to grow its network and reach in the country is a robust support system for all of its local consultants. This includes brand marketing, provision of training, and more importantly, the timely delivery of Oriflame’s wide portfolio of Swedish, nature-inspired beauty products.

Oriflame has a strategic logistical network for the distribution of goods from its production sites to distributors, consultants and end-consumers in China. Apart from a central warehouse, domestic distribution sites responsible for the last-mile delivery are set up in key locations across the country. These distribution sites are critical touchpoints. They have to ensure sufficient inventory for all products while preventing obsolescence; and facilitate efficient dispatch.
To ascertain and maintain high-standards of operations and efficiency at these distribution centres, Oriflame worked with partners such as Arvato – a leading business process outsourcing provider. Arvato surrounded its solutions with IT integration and automation to manage the large variety of Oriflame products and fulfil the need for speed during dispatch. For instance, a centralised IT back-end system is utilised to allow Oriflame end-to-end inventory visibility across all its sites in China. Oriflame benefits from greater accuracy in demand forecasting and better inventory management that align with its country-wide sales strategies.

Computerised tools, such as the Pick-by-Light system; Radio Frequency (RF) scanners, and digital weighers are also used to ensure that orders are picked and packed with minimal human error. The enhanced efficiency brought by these digitised tools meant reduction of costs through elimination of excessive manpower.

Perfecting the sales and purchase journey

For Oriflame’s direct-selling consultants, a stable and efficient last mile fulfilment supports their sales efforts which also translates to better purchase experience for their end-consumers. The seamless flow of information for example, allows consultants to track their orders in real-time via the Oriflame app, WeChat app, or Short Message Services (SMS). This feature allows consultants to inform their customers the status of their orders with greater certainty.

Because of the scalability and flexibility built into the last mile distribution system, Oriflame’s consultants can also be sure that they can take full advantage of promotional periods, such as during China’s annual 11.11 Global Shopping Festival to maximise sales. Surge in order volumes are fulfilled with consistent efficiency and accuracy by virtue of Arvato’s digitised processes and computerised tools; maintaining a high standard of customer service.

Notably, the option for value-added services such as postponement strategies at the domestic distribution sites also contribute to Oriflame’s customer journey. Arvato inserts the promotional materials at the distribution sites only when an order has been placed. Customers and consultants therefore only receive the latest, most up-to-date marketing collaterals.

Towards bigger dreams

Oriflame’s direct-selling model has proven successful in helping millions of its consultants worldwide build a career and fulfil their dreams, with no exception in China. A key component in backing Oriflame’s network expansion has been its supply chain model. The agility and flexibility of its logistics has allowed Oriflame to adapt swiftly according China’s dynamic market environment.

As Oriflame continues to expand its network, their digitised supply chain will act as a strong foundation from which varied market strategies can be built upon; allowing more people to benefit from the Oriflame opportunity and fulfil their own dreams.
Supply chain and logistics industry is a lot of things, but is it trendy? It is fast becoming so, and this is good news for talent recruitment. Young workers and new graduates are now more technology-savvy and crave flexibility. The industry is currently in the midst of transformation, and this metamorphosis into a high-end industry will ensure that it continues to attract top (and young) talent.

So how exactly is the industry becoming trendy?

Robotics in warehouses

Automation is already well-established in many distribution centres around the world, but for most, it is limited to workflow automation managed by increasingly advanced warehouse management systems.

The situation is changing however, as more and more material handling equipment manufacturers bring warehouse robotics to market. Robotic solutions offer the ability to introduce automation into the distribution centre operations without the need for major structural alterations.

Amazon's warehouse robots are an essential part in its operations. Its Seattle operation aggressively uses robots for order fulfilment. The company operates a growing fleet of 30,000 robots. According to a Deutsche Bank study, Amazon's Kiva robots have saved it considerable time and space, as well as US$22m for each fulfilment centre that uses the Kiva robots so far.

Robots assist in loading everything from corrugated cartons to regular parcels. Half of supply chain managers expect to benefit from increasing logistics automation within the decade. Time and cost reductions are always at the top of any operations manager’s mind. These savings are even more desirable in today’s go-go supply chain, where time to market is critical for companies that compete globally for market share.
Driving driverless trucks

Autonomous truck development has been a trend that has grown over the last couple of years, but it still looks like it will be some time before autonomous goods vehicles are used in earnest.

At first glance, the opportunities and challenges posed by self-driving trucks might seem to merely echo those associated with self-driving cars. But trucks are not just long cars. For one thing, the economic rationale for self-driving trucks might be even stronger than the one for driverless cars. Autonomous trucks can coordinate their movements to platoon closely together over long stretches of highway, cutting down on wind drag and saving on fuel.

Where do truckers fit in a driverless trucking landscape? As long as self-driving trucks require a driver to remain on board to secure the goods, driving jobs seem safe. After all, driving a truck 11 hours a day is stressful. Besides being able to nap and relax in the cab, drivers could use the time away from the wheel to catch up on trucking’s heavy paperwork, locate a backhaul load that would pay for the return trip, chat with family and friends, learn a second trade, or run a business.

The rise of the virtual logistics team

The concept of remote working and virtual teams has become pervasive across many commercial sectors, enabling companies to access talent globally rather than locally and to cut down on travel expenses and real-estate needs. The potential future of the workforce is marked by corporations streamlining their approach on almost everything, from data storage solutions to communication platforms. With new, flashy tools and shifts in workplace culture, there is an almost unlimited potential for customisation, which allows technology to cater almost exclusively to the needs of an enterprise.

While telework has not reached full acceptance in the workforce yet, it does represent a cultural shift in developed countries. Studies however challenged the stereotype that teleworkers are less productive or lazy, noting that 91 per cent of workers surveyed believe they get more work done via virtual work than they would in an office setting.

As supply chain IT continues its transition to the cloud, 2017 might be the year in which supply chain and logistics organisations begin to look closely at the benefits of remote working for administrative and support staff.

Preparing for the next big thing

Sometimes it is difficult to predict what is going to happen next week let alone 14 or 15 years down the road. Technology, digitisation and automation are dramatically changing the supply chain. The cloud and massive streams and lakes of data are making for a vastly different way of managing operations. The manufacturing firms that continue (successfully) into the future must possess the talent with the right competencies, and the strategic thinking and problem solving abilities to deal with the new and increasingly more complex supply chain.

But how confident are firms that they will have this workforce at the ready? Not very. In Deloitte’s 2015 Supply Chain survey of 400 executives, only 38 per cent of respondents say they have the competencies they need today, and that does not even consider the future.

Organisations need to work collectively with colleges, universities and high schools to educate students on the benefits of working in the supply chain profession. For example, tout the fact that many of today’s supply chains use leading-edge technology to make the world’s best and most recognised products (including all those electronic devices millennials are so attached to). Traditional enterprise resource planning systems are also giving way to cloud-based supply chain planning software to drive unprecedented collaboration, cooperation and innovation.

It is one thing to transform the warehouses and supply chain operations, but it must also be followed up by great marketing to attract others to join the industry. Otherwise, the trendy industry, regardless of the depth of innovation used, will not reap the expected benefits.
LOOKING TO CLOUD SOLUTIONS
AS THE FOURTH REVOLUTION GETS UNDERWAY, IOT IS BECOMING A GAME-CHANGER IN THE WORLD OF MANUFACTURING

by Roselynda Afandi, Communications Specialist, Corporate Media Services

End-equipment markets today require shorter product life cycles, individually configured products and fast adaptation to changing consumer demands, prompting the need for more sophisticated systems that can optimise the 360 manufacturing process.

Flow customisation and enhancement, asset tracking, predictive maintenance and real-time inventory optimisation that form the core objectives of Industry 4.0 present enormous opportunities for growth, and innovative businesses recognise the potential benefits. From high tech to manufacturing and industrial equipment, production processes are being transformed by “digitisation.” New technologies such as smart sensors, big data, and cloud computing applications are driving significant advances in these sectors.

Embedded systems are increasingly being connected to networks in large and medium-size enterprises, where the usual targets for cloud computing assimilation are manufacturing and production planning systems. With integrated connectivity, manufacturers are better able to access information from the factory floor through their cloud systems, and can quickly detect and address issues long before the product leaves the factory.

“The concerted move to cloud comes at an opportune time, especially with the anticipated growth of IoT, which will see 20.8 billion connected devices in use by 2020. Cloud services are becoming inexpensive and widely available, and enterprises can move or transfer workloads within and between their own data centres easily,” says Nalin Amunugama, General Manager of BOGE Asia Pacific, a leading supplier of industrial air compressor systems.

Aside from storing and managing the ever-growing expanse of production data, cloud computing helps manufacturers to reduce costs, provide new services, increase agility, boost performance and ultimately drive profitability.
Factories of the future

No longer just a concept, the Smart Factory is increasingly becoming a principal feature of many businesses, helping them improve processes through automation and self-optimisation. Central to the operations of this smart environment are cloud-connected machinery and equipment that leverage collected data to monitor processes and keep production running optimally. The application of intelligence – in the form of sensors, motors and robotics – along the assembly lines also frees up manpower from repetitive tasks, and directs them to more urgent or complex roles.

In efforts to embrace comprehensive horizontal, vertical and digital integration, semiconductor manufacturer, Infineon Technologies, is implementing its own Smart Enterprise Programme (SEP). Over the next five years, the company will invest S$105 million into building a Smart Factory at its manufacturing plant in Singapore. It has since introduced cloud robotics, like automated guided vehicles, to transport chips across different parts of the facility.

The delivery of lots to specific equipment, previously carried out by operators, is among various tasks that are now automated. Infineon’s investments in its smart factory are expected to expedite the replacement of manual, error-prone activities by its staff, enabling them to work on skills required for higher value-added activities. In the long run, the SEP will give the company a leap in productivity – in this case, chip output of four times – while helping it maintain its competitive edge in manufacturing.

Integrated shop floors

To tackle rigid back-end manufacturing, Tulip, a cloud-based operating system recently introduced a self-service technology that allows engineers to create customised apps that facilitate shop floor operations. Offering manufacturers a high degree of flexibility in creating their own digital solutions, the modular platform ensures customers’ unique, ever-changing needs are carefully addressed.

"Manufacturing software needs to evolve. Legacy applications neglect the human side of manufacturing and therefore suffer from low adoption. Tulip aims to change all this through our intuitive, people-centric platform," explains Tulip co-founder, Rony Kubat.

The system makes it easy for manufacturers to connect work processes with machines and backend IT systems, and feeds operators with real-time data on their smart devices. Insights based on advanced analytics enable workers on shop floors to respond to changes quickly, while they perform their production tasks. With integrated access to previously isolated data streams, businesses are better equipped to monitor operations, reduce downtime, increase savings and support process improvement.

The Tulip system has yielded positive results. In its first four weeks of operation at Jabil, a global provider of intelligent supply chain solutions, production rose by more than 10 per cent and manual assembly quality issues decreased by a significant 60 per cent.

Simulations through cloud

Small and medium-sized companies increasingly rely on engineering software and high computing power. CloudFlow, an EU project coordinated by Fraunhofer IGD, provides both. Forty-six partner institutions from 13 European countries are working together in this project. The idea is to provide these companies with the opportunity, by means of cloud computing, to use simulation software via the Internet on the CloudFlow platform. In doing so, the available servers provide very high computing power to solve complex tasks.

One example is the successful experiment carried out between software developer, Capvidia and BOGE. Through CloudFlow and Capvidia’s cloud-adapted computational fluid dynamics (i.e. simulations), BOGE was able to improve the characteristics of its air compressors. Using physical mock-ups and acoustics information from data collected, BOGE’s engineers were able to optimise fan performance, resulting in reduced power consumption and noise emission – both of which are especially important considerations in markets that require silent or ultra-energy-efficient compressors. The virtual simulations also help minimise design and engineering costs and time (from a week to mere hours). Such technical/physical improvements depend on cloud-derived information that would otherwise be undetected in physical experiments.

The experiment demonstrates how cloud-based simulations in the development phase go a long way in ensuring better economic predictions, faster time-to-market and higher quality air compressors. BOGE estimates that the successful application of computational fluid dynamics can increase its revenues by about €2m over the next few years.

Age of digital ecosystems

The digital platforms forming around all industries are accelerating the speed and impact of innovation. To survive, this requires embedding the ability to track, understand, evaluate and harness emerging technologies and innovation that are taking place within and across those platforms as part of a company’s continual strategic process. Supply chain ecosystems, and the processes that span them, will be among the biggest beneficiaries of cloud-powered IoT solutions.

“As cloud innovation continues to drive significant responses to ever-changing market dynamics, businesses that embrace the Cloud will not simply collect valuable data, but gain actionable insights that can result in preventive maintenance, huge quality improvements and positive sales forecasts,” emphasises Mr Amunugama.

Cloud deployment of software will not only gradually become the default, but it will continue to push the boundaries of connectedness and efficiency by empowering engineers, operators and whole businesses to build more coordinated data ecosystems and create more transparent and organised supply chains.

About the Author

Roselynda Afandi is a communications specialist covering technological trends in sectors like healthcare, logistics, engineering and industrial automation. Her articles focus on the latest tech innovations and applications impacting operations in these industries as they gear up for Industry 4.0.
RESPONSIBLE ELECTRONICS
HOW DIGITISATION AND LOGISTICS CAN HELP THE CAUSE

by Nidhi Gupta, Founder, Varehaus

We live in an age of devices, and there are bound to be an increasing number of devices that we cannot live without as we imagine the future. By 2022, the average household with two teenage children will own about 50 connected devices versus ten devices today, as per OECD estimates. To add to that, the rate at which we swap our devices for new models is getting dizzier by the year because of the attractive deals from service providers, the enticing new models launched almost annually by manufacturers and because it may not hurt the pocket as much anymore. Electronic products are, almost as if, designed for obsolescence.

What happens to the devices we no longer use or need?

Well, there are four main scenarios that you are probably following:

- **Do nothing** – Probably the most common scenario is that the device is just sitting unused in your home and soon you forget about it even being there.
- **Dispose (unsafely?)** – An unsustainable and potentially dangerous scenario is to dispose off the product in the dumping areas, landfills and even household bins. Few countries today have regulations and mandatory disposal processes for e-waste.
- **Exchange/ resale** – There are online marketplaces (e.g. Craigslist, Gumtree, and Carousel) and brick-and-mortar vendors to allow you to resell your usable electronics. There are also offers by service providers and manufacturers to exchange an older electronic product for a newer model, with some rebate.
- **Recycle** – How many of us would have actually taken the effort to dispose the electronic product at proper recycling places or to authorised scrap dealers?

There are not only environmental issues with the above processes, but also commercial. Improper disposal not only goes direct to landfills and contributes to pollution; but may also be dangerous given there are batteries and other inflammable components. Lack of proper recycling channels make it difficult to be able to extract useful components and commodities (e.g. gold, silver, tin, and copper) from unused products or extract parts that could be reused in a newer model.

Why is this still a problem?

There are two main root causes of the above:

1) **The logistics stops till the product reaches the consumer:** Broken reverse logistics (from consumer to recycler to manufacturer), limited number of drop points to drop your used electronic and hardly any pick-up models to pick the used product from your home.

2) **No mandated responsible entity for the reverse logistics** for sustainable recycling or reuse or disposal of the outdated electronic products: Consumers have no incentive or regulatory binding to dispose products safely, few governments have mandated e-waste disposal or made manufacturers liable for recycling and disposal and as for manufacturers, they gain more profit with ‘obsolescence’ and faster new product launches.
How then can digitisation and logistics help?

Apart from the usual levers, like raising consumer awareness, government regulations to demand a recycling fee from manufacturers (e.g. WEEE directive), there are ways digitisation and logistics can potentially solve this problem.

1) Reverse supply chain: For efficient reverse logistics, we need a hub and spoke structure – collection nodes (either home collection or drop points where consumer can drop off their products), sorting facilities (e.g. segregating usable products from scrap) and transportation to the right recipients (e.g. authorised recyclers, back to manufacturers, and registered scrap dealers). This can only happen if the manufacturers are made liable and hence have a reason to bring the relevant parties (e.g. logistics and recyclers) together to form and fund the supply chain network.

2) ‘Trash to Cash’ marketplaces or drop boxes: Online trade-in marketplaces fare much better in both ease-of-use as well as commercial returns to the consumer. The logistics model could vary or self-exchange (no logistics cost by marketplace).

3) Shared economy: An alternative to owning expensive new electronics (e.g. special camera for that safari trip or a VR gaming device for a fun marathon weekend) is renting it when you want it. That is the concept for various peer-to-peer electronic rental marketplaces such as Berlin-based Grover which has a subscription based model.

4) Sustainable product development:
In engineering-driven industries like automotive, industrial machinery, and medical devices, the contribution of spare parts sales and maintenance is almost 50-60 per cent of the total profits of the manufacturer. If spare parts for electronics become cheaper to replace and maintain, then we might see more sustainable, upgradable hardware in electronic products as well.

- Modular electronics: Even though modular phones have not seen success till date (e.g. modular smartphone Project Ara by Google was terminated in Sept 2016), there are start-ups working on similar concepts, which, if successful, will be revolutionary. For example, Nascent Objects, a modular consumer hardware startup, was acquired recently by Facebook. FairPhone, which attempts to make ethical and modular smartphones, raised $10m in crowd-funding in 2016.
- 3D printed spare parts: As 3D printing matures, allowing multiple materials to be used at cheaper total cost, electronic spare parts can be potentially manufactured in retail stores / warehouses close to the consumer; thereby also improving the reusability of electronics.

In the ever-busy world we live in, we need an incentive (like trash to cash) or a constraint (like regulatory measure) to think about sustainable electronics. The new digitisation models and logistics can help reduce the barriers to that.

About the Author

Nidhi Gupta is an experienced strategy and logistics professional. She has 10+ years of leadership and C-level consulting experience in Asia Pacific. Nidhi is passionate about digitisation and innovation in the supply chain and logistics industry. She is currently consulting with private investors in Asia Pacific and is part of an accelerator in Singapore co-founding a technology start-up in Singapore in the digitised logistics domain.
Globalisation, advancements made in communications, transportation, logistics and supply chain technologies have changed the way trade occurs. Businesses across the globe are exporting to an average of 30 to 40 different economies as compared to just three to four economies in the past. Today’s connected entrepreneur buys raw materials from one corner of the globe, manufactures a final product out of another, and then sells it off to consumers scattered all over the world. This is the new model of e-commerce; a far cry from just 50 years ago where many parts of the trade, logistics and supply chain were located in one country.

As e-commerce continues to grow, industry experts estimate that Southeast Asia’s e-commerce market will surpass US$25bn in revenue by 2020, more than double the total revenue in 2015. While moving goods across borders has never been easier, businesses may still find it a challenge to navigate the complex regulatory and compliance landscape across multiple countries. Businesses will need the right infrastructure to ensure reliable, efficient and speedy customs clearance, while ensuring compliance with various regulatory requirements.

Here are three reasons why businesses must take tradition out of trade and embrace digital platforms and solutions that further accelerate trade to save time and cost.
Simplifying complexity

Varying from country to country, the complexity of customs and trade rules form the biggest inhibitors to global e-commerce. “Trade complexity” can be defined by factors such as the number of products and countries involved in a business’ international network, trade regulations and tariffs involved in moving goods from country to country, or the time taken to clear goods through customs regimes.

Businesses today need to manage documentation and regulatory requirements for many different countries, all which may have different policies on what kind of goods can be traded, tariffs and regulations. In the past where businesses can only trade with a few countries, a manual approach to completing these regulatory requirements may have been viable. Today, a technology-based approach is needed.

A digital trade solution can harness a multi-node connection and enables firms to automate a majority of processes that would otherwise be conducted manually. For example, manually sourcing for and attaching the right Harmonised System Codes (HS Code, also known as The Harmonised Commodity Description and Coding System, a tariff nomenclature) for goods, filling up import/export, and other customs or compliance paperwork can be time-consuming and prone to errors. A Single Window platform ensures these processes are automated, allowing organisations to focus on the business of trade rather than the operations. The information can then also be transmitted seamlessly to multiple countries where the goods are heading.

More delays, more cost

There are many different cost factors along the entire trade chain. These factors can be non-tariff regulatory measures, market access restrictions, trade finance availability and costs, and general impediments on doing business; crossing the border such as documentation and customs compliance requirements, lengthy administrative procedures and other delays; and across all stages of the international trade chain, such as transport infrastructure and logistics. The Organisation for Economic Co-operation and Development (OECD) has found that administrative delays can increase transaction costs by an estimated two to 24 per cent of the value of traded goods, a risk that can erode a firms’ competitive edge.

Often, larger firms are able to hire expert teams to ensure trade compliance, while smaller firms find themselves delayed by the overall process of meeting compliance regulations around cross-border trade. A global trade platform that can automate these routine compliance processes to reduce the overall reliance on human input, would certainly be a boon to the trading sector.

Maintaining proper systems of record to ease regulatory compliance

The free movement of people and goods across economies gives rise to increasing concern around safety and security. Governments around the world are growing more sensitive to what is being brought in and out of their country, and are leaving no stone unturned when it comes to their nations’ security. To conduct trade in this new state of heightened alert within the global economy, firms need to ensure transparency and accountability in their trade practices. While the fulfilment of trade compliance requirements is a crucial first step in building accountability, firms need to be answerable to the authorities at a moment’s notice.

A lapse in keeping proper records of goods moving between borders could result in catastrophes such as the Tianjin port explosions, which killed 173 people and led to almost 800 injuries. Improper records of the chemicals being stored in the Tianjin warehouse also meant that emergency responders did not know what they were dealing with, and actually caused a chain of severe and explosive chemical reactions as they tried to douse the fire with water, which reacted violently with the highly volatile chemical being stored.

While digital trade solutions enable easier trade across borders, it also acts as a system of record to ensure full accountability and transparency with concerned authorities. This system moves firms away from “ledger-style” systems of accounting, and moves them into current day where records can be accessed anywhere in the world, in a matter of seconds.

Digital trade, a case of cost versus opportunity cost

Without a doubt, going digital for trade is the way to go. Today’s digital trade solutions can operate on a subscription-based Software-as-a-Service (SaaS) operation model, and are able to deliver services over the cloud. This makes it easy to upgrade systems, install patches and update rules and regulations to the latest. To the user/shippers, it makes trade more accessible, predictable and easier to take on today’s complex trade challenges.

The accelerated pace of trade promised by digital trade solutions represent a win-win situation for all, and usher in an era of hyper-connected, hyper-efficient, hyper-productive global trade. Digital trade represents the next era of e-commerce, where the location of the new silk route might actually start with “www.”

About the Author

As CEO of GeTS (a subsidiary of CrimsonLogic), Kok Keong is responsible for all business operations, including setting the direction and strategy of the company. He also double-hats as CrimsonLogic ACEO. Kok Keong joined CrimsonLogic in 2006 as Vice President of the eGovernment Business Division. During this tour of duty, the company experienced strong growth especially in overseas business, with major project wins such as eJudiciary project in the United Arab Emirates and Qatar Customs Clearance Single Window.
MAKING YOUR BUSINESS WORK WITH VIRTUAL REALITY

At the very recent National Retail Federation (NRF) 2017 conference, Intel and Alibaba demonstrated the use of virtual reality (VR) to reinvent the customer experience.

VR was used during the last Singles Day to better engage with consumers. Potential customers can download an application into their phone and enter the VR world of retail. They enter a virtual store that is designed with aisles and products they can actually engage with, similar to an actual bricks-and-mortar store. The technology for VR retail is a major breakthrough for the fiercely competitive industry and provides big brands with a huge opportunity to take customer experience to the next level. For consumers, this new way of interacting with brands is mind-blowing – they can actually experience the nature of a store and products virtually, from the comfort of their own living room.

However, the real underlying value of this VR experience goes much deeper than the connection retailers are trying to make with consumers – it is the data that is derived from each and every trip to the virtual store. Think about all the information companies can gather by tracking and analysing every action, every move, every product that is viewed and considered. Companies will have the chance to understand each customer and make the right business decisions. All of this will ultimately have an impact on the supply chain.

What is a VR supply chain?

A virtual reality supply chain lets organisations to design and architect in 3D, evaluate designs and make critical decisions about new products and customer buying decisions. According to Industry Week, the value proposition of VR supply chains include:

- A complete 3D visual of the parts list, components, quotes and pricing for the proposed design or purchase option;
- Full supply chain integration from design, manufacturing, supplier management, distribution, customer delivery and installation;
- Improved velocity, quality and simplification in the order fulfilment cycle;
- Realisation of significant revenue growth, profitability and a superior customer experience.

Manufacturers, retailers, and distributors are beginning to assimilate this technology into their daily business models with immediate and impressive results.

Case study: McDonald’s

McDonald’s UK branch has opened the gates to its food sources, utilising VR and a 360-degree video to take viewers through its food production processes. The Follow our Foodsteps campaign looks to show the public a narrative behind its British and Irish process, from the farm fronts to processors and suppliers, as the brand looks to drum up interest in the farming industry, one that it spends £900m per year on.

One application Top of the Crop allows Oculus Rift users to try their hand behind the wheel of a tractor. Another takes viewers to the farms producing the brand’s dairy, egg and patty goods.

Case study: No Man’s Sky

While No Man’s Sky is just a game, the universe created is fascinating. The small team of programmers used artificial intelligence and procedural generation to self-create an entire galaxy with over 18 quintillion unique planets complete with their own geography, ecosystems, flora, fauna, and structures, for users to fully explore. The scope of the game has given some who have tried the demo a fuller appreciation of the size of the cosmos, and understandably a bit of existential angst.
The No Man's Sky approach is also another possibility that the logistics industry could wherein VR would be used to give customers a fuller, more comprehensive appreciation of all the moving parts that are involved in a supply chain. Basically, granting customers the ability to literally visualise the supply chain.

**Integrating VR into manufacturing operations**

VR technology has many useful applications, from improved worker safety to increased efficiency from both a process and product design perspective.

Firstly, when it comes to predictive analytics, VR has created a fresh approach to this trusted technology. One of the downfalls of the world we live in is the uncertainty of outcomes, of what the future holds. This is where predictive analytics takes the stage. The ability to anticipate an outcome before it happens is extremely valuable, and VR technology is making this much easier and more accessible. Engineers are able to design better products while customers can see final products pre-production, ultimately saving everyone precious time and money.

Secondly, when talking about VR and its potential to increase efficiency, this not only applies to a physical product, but also to the associated manufacturing processes. By designing and simulating production lines virtually, a production manager can identify bottlenecks, maximise efficiencies and reduce total waste before any physical work begins. As far as products go, VR simulation allows engineers to identify potential material weak spots or air flow issues in the early design stages when tweaks are simpler and less costly.

Safety is another key area where VR has the power to make waves. Simulating various production processes and assembly line configurations allows a user to identify potentially hazardous maneuvers and fine-tune workflows pre-production. Automotive giant Ford, a company leading the way in VR integration, has successfully reduced employee injuries by 70 per cent, according to TestDrivenTV.

As VR devices become more affordable and, thus, more accessible, gamers are not the only group looking for ways to get the most out of this incredible technology. Although adoption in the business world remains very low, interest is spiking as companies realise VR’s true potential.

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**THE KEY TO VR SUCCESS IS ROBUST TESTING**

Experiential approach in testing boosts the Acceptance ratio

Google Cardboard is offering users VR experience at a low cost

User interfaces for VR Apps are complex and must consider varied testing approaches

With intense human-machine interface, adopting a conventional testing approach is ineffective

Source: Gallop Solutions
Public nomination is now open.

http://supplychainasia.org/sca-events/awards-2017/

16 November 2017 | Mandarin Orchard Hotel
Singapore

Supply Chain Asia
Industry Night
Annual Awards Gala Dinner
2017
Supply Chain Innovation of the Year Awards
Nomination Form - Corporate Awards

Innovation is the theme for Supply Chain Asia Awards 2017. This year, we aim to recognise and award companies that have made the initiative to invest in innovative strategies and adopt effective technologies. All projects must be newly implemented during the period: 1 January 2016 – 30 June 2017. Nomination period will start in July 2017 and close by 22 September 2017.

Infrastructure
Supply Chain Innovation (Infrastructure) of the Year award is given to a company whose operations are infrastructure-related in terms of port (air and sea) operations, distribution or logistics park and facilities. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted in its set-up.

Nominee:

Software & Systems
Supply Chain Innovation (Software & Systems) of the Year award is given to a company that is focused on the provision of software and system applications related to the logistics and supply chain industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers.

Nominee:

Material Handling Equipment
Supply Chain Innovation (Material Handling Equipment) of the Year award is given to a company that is focused on the provision of material handling equipment and hardware applications related to the supply chain and logistics industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers.

Nominee:

Start-up
Supply Chain Innovation (Start-up) of the Year award is given to a company that is less than 5 years old and is in the business of providing services and solutions related to the supply chain and logistics industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers.

Nominee:

LSP (SME)
Supply Chain Innovation (LSP) of the Year award is given to a third-party logistics company and is in the business of providing services and solutions related to the logistics and supply chain industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers.

Nominee:

LSP (LLE/MNC)
Supply Chain Innovation (LSP) of the Year award is given to a third-party logistics company and is in the business of providing services and solutions related to the logistics and supply chain industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers.

Nominee:

Asian 3PL of the Year
Asian 3PL of the Year award is given to a third-party logistics company with an Asia Pacific presence in North and Southeast Asia and is in the business of providing services and solutions related to the supply chain and logistics industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers in the Asia Pacific region.

Nominee:

Global 3PL of the Year
Global 3PL of the Year award is given to a third-party logistics company with presence in at least 2 continents and an Asia Pacific HQ. The company’s business must be in the provision of services and solutions related to the supply chain and logistics industry. To qualify for this nomination, the relevant companies must show the innovation successfully applied and adopted by its customers globally.

Nominee:

Your Particulars

Name: ___________________________ Company: ___________________________

Appointment: ___________________________ Email: ___________________________

Country: ___________________________

If you do not wish to nominate a company for any of the categories, please leave it blank. To nominate, please scan and email this voting slip to admin@scasia.org. Online voting is available at http://supplychainasia.org/sca-events/awards-2017/.
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Formed in 2007, Supply Chain Asia magazine has evolved into one of the leading supply chain and logistics titles in Asia Pacific. The bi-monthly magazine informs a targeted global readership consisting of the world’s largest brand-owning companies, supply chain service vendors, and regulators of industry trends affecting the business of supply chains, logistics and Asia-related trade.

Jan/Feb [Supply Chain Trends & Success]
- Coverage of SCA Awards 2016
- Top Supply Chain Trends of 2017

Mar/Apr [Singapore Logistics Industry]
- What’s Next for Emerging Markets?
- ASEAN’s 50th Anniversary

May/Jun [Industry 4.0]
- Rise of the Smart Factory
- Augmented Reality in Retail & Supply Chain

Jul/Aug [Talent]
- The Changing Skills of the Typical Warehouse Worker
- The Dearth of Supply Chain Talent

Sept/Oct [Supply Chain in Asia]
- Evolution of e-Commerce Models
- Logistics Hubs in Asia

Nov/Dec [Top Players in Supply Chain]
- From Struggles to Success: Inspirational Stories in the Industry
- Coverage of SCA Forum 2017

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