



The Australian Maritime Logistics Research Network (AMLRN) 2020 Symposium

RMIT University, Melbourne, Australia

Thursday, December 10th 2020

Hosted by



**RMIT
UNIVERSITY**

**School of Accounting, Information
Systems & Supply Chain**

College of Business & Law

Table of Contents

Welcome from the Symposium Chair	3
Symposium Organising Committee	4
Symposium Agenda	5
Symposium Keynote Speakers	7
Symposium Industry Discussion Panellists	10
Symposium Moderators	12
Abstract of Presentations	16
Session 1: Post-COVID Strategies	16
<i>The role of maritime informatics in decarbonising maritime supply chains</i>	16
<i>Blockchain adoption in container shipping: Decentralization and reglobalization in action</i>	17
<i>The emerging spectrum of maritime security</i>	18
<i>The Impact of COVID-19 on Maritime Transport, Logistics and Supply Chain Management: Challenges and Opportunities</i>	18
Session 2: Shipping and Port Operations	21
<i>Determining the guide leasing price of empty container in the shipping network</i>	21
<i>Effects of altering planning decisions on the efficiency of container terminals</i>	21
<i>Impact of Real-Time Yard Planning Decisions in Determining Yard Locations at Container Terminals</i>	22
<i>Port strategies to deal with global shipping alliances and independent carriers</i>	23
Session 3: Supply Chains	25
<i>Evaluating the Role of Dry Ports in the Port-Hinterland Logistics: A Conceptual Framework and Empirical Studies in Vietnam from a Multi-stakeholder Approach</i>	25
<i>The Role of the Regional Comprehensive Economic Partnership (RCEP) in the International Supply Chains from ANZ's Perspective: Opportunities and Challenges</i>	25
<i>Shipping connectivity modelling: an application of flow matrix</i>	26
<i>Implications of Logistics Cluster Benefits: An Australian Case study</i>	27
Session 4: Sustainable Development	29
<i>CSR Leadership and CSR Culture as Antecedents of CSR Performance: A Study of the Transport Logistics Industry in Australia</i>	29
<i>Towards Port Sustainability: A Comparative Analysis and Implications</i>	30
<i>Barriers in implementing sustainable development goals in seaports</i>	31
<i>The Impact of Logistics Activity on the Environment Sustainability at the Muscat Industrial, Oman</i>	31
Special Issues of Supporting Journals	33

WELCOME FROM THE AMLRN 2020 SYMPOSIUM CHAIR



Chair of the AMLRN 2020 Symposium Associate Professor Vinh Thai

School of Accounting, Information Systems and Supply Chain,
RMIT University

On behalf of the Organising Committee, we would like to warmly welcome all academic and industry participants, founding members of the AMLRN, distinguished guest speakers, industry discussion panellists, and paper presenters to the Australian Maritime Logistics Research Network (AMLRN) 2020 Symposium.

Australia relies heavily on the vibrancy of its maritime industry i.e. shipping, port, and supporting sectors. Maritime logistics is therefore critical to Australia's economy. The AMLRN was established in 2019, after the successful Inaugural Symposium hosted by RMIT University, to connect academics with academics in the field of maritime logistics, as well as with industry professionals and organisations that have an interest in maritime logistics research and related activities to achieve the synergy in research grant applications, advocacy and advice to Government dealing with maritime logistics policy issues, joint conduct of research and industry projects and others. The annual symposiums and periodical research workshops jointly participated by both academics and industry professionals will provide excellent platforms to achieve this objective. During 2020, three very well attended webinars have been organised, featuring important topics of '*Impact of COVID-19 on Maritime Supply Chain and Post-Pandemic Mitigation Strategies: Implications for Australia*', '*Maritime Risk Management in the Future*', and '*COVID-19 and Shipping and Port Operations*'.

The theme of the AMLRN 2020 Symposium is '*Maritime Transport and Logistics in an Era of Reglobalisation - Contemporary Issues and Interfaces*'. In the aftermath of COVID-19 and other global trends, there have arisen critical issues both in maritime transport and logistics domains and their interfaces with international trade which need further research investigation. On this note, the AMLRN Annual Symposium 2020 will be an excellent opportunity for AMLRN members and other prospective participants to get together and exchange practical experience, research results, ideas, commentary, feedback in various forms of engagement e.g. keynote industry presentations, paper presentations, case study presentations, and industry panel discussion.

We are thankful to the supporting journals of *International Journal of Physical Distribution and Logistics Management*, *Maritime Business Review* and *International Journal of Logistics: Research and Applications* whose special issues provide platforms of submission for the full papers of presentations at the AMLRN 2020 Symposium. We also appreciate that the Symposium will feature presentations not only from academics and practitioners in Australia but also from those from other countries e.g. Singapore, New Zealand, Oman, Vietnam, Sri Lanka, South Korea and Sweden.

While the AMLRN 2020 Symposium is organised online with the great support from the School of Accounting, Information Systems and Supply Chain of RMIT University, we do hope you will enjoy the online symposium and look forward to seeing you again in the AMLRN 2021 Symposium!

SYMPOSIUM ORGANISING COMMITTEE

- **Symposium Chair**

Associate Professor Vinh Thai, School of Accounting, Information Systems and Supply Chain, RMIT University

- **Members of Symposium Organising Committee**

- Dr Sobhan Asian, La Trobe University
- Professor Prem Chhetri, School of Accounting, Information Systems and Supply Chain, RMIT University
- Professor Shams Rahman, School of Accounting, Information Systems and Supply Chain, RMIT University
- Associate Professor Victor Gekara, School of Accounting, Information Systems and Supply Chain, RMIT University
- Dr Muhammad Abdulrahman, School of Accounting, Information Systems and Supply Chain, RMIT University
- Dr Zaheed Halim, School of Accounting, Information Systems and Supply Chain, RMIT University
- Associate Professor Peggy Shu-Ling Chen, Australia Maritime College, University of Tasmania
- Associate Professor Johnny Fei, Australia Maritime College, University of Tasmania
- Professor Michael Bell, University of Sydney
- Associate Professor Richard Oloruntoba, Curtin University
- Dr Yong Wu, Griffith University

- **AMLRN Secretariat**

- Associate Professor Vinh Thai, School of Accounting, Information Systems and Supply Chain, RMIT University
- Dr Thuy Nguyen, School of Accounting, Information Systems and Supply Chain, RMIT University
- Dr Aswini Yadlapalli, School of Accounting, Information Systems and Supply Chain, RMIT University
- Dr Priyabrata Chowdhury, School of Accounting, Information Systems and Supply Chain, RMIT University


THE AUSTRALIAN MARITIME LOGISTICS RESEARCH NETWORK (AMLRN) 2020 SYMPOSIUM PROGRAM


AGENDA


10.00 – 10.15	Opening Ceremony
	<p>Teams host: Assoc Prof Vinh Thai, <i>School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i></p> <p>Teams link: Click here to join the session</p>
	<ul style="list-style-type: none"> • Opening Remark Prof David Smith, <i>Dean, School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i> • Welcome and Acknowledgement of Country Prof Nava Subramaniam, <i>Deputy Dean R & I, School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i>
10.15 – 12.15	Keynote presentations
	<p>Chair: Prof Prem Chhetri, <i>Head of Department of Supply Chain & Logistics Management, School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i></p> <p>Teams link: Click here to join the session</p>
	<p>10.15 – 10.45</p> <ul style="list-style-type: none"> • “Digital Transformation and the Maritime Professional - Stemming the tide or catching the wave?” Ms Jillian Carson-Jackson, <i>President, the Nautical Institute</i> <p>10.45 – 11.15</p> <ul style="list-style-type: none"> • “From essential service to lockdown” Mr Sal Milici, <i>Head of Border and Biosecurity at Freight & Trade Alliance (FTA) and the Australian, Peak Shippers Association (APSA)</i> <p>11.15 – 11.45</p> <ul style="list-style-type: none"> • “Impediments to rail mode shift to/from ports – Can we get more freight on rail?” Mr Tristan Anderson, <i>Market Sector Leader – Transport, GHD Advisory</i> <p>11.45 – 12.15</p> <ul style="list-style-type: none"> • Q & A <p>Moderator: Prof Prem Chhetri, <i>Head of Department of Supply Chain & Logistics Management, School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i></p>
12.15 – 13.00	Break
13:00 – 15:00	Parallel paper presentation Session 1, Session 2, Session 3, Session 4
15:00 – 15:15	Break

15:15 – 16:15	Industry panel discussion
	<p>Moderator: Prof Shams Rahman, <i>School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i> Teams host: Assoc Prof Vinh Thai, <i>School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i> Teams Link: Click here to join the session</p>
	<p>COVID-19 and Maritime Logistics and Supply Chains: Contemporary Issues and Solutions <u>Panel members</u> Mr Brett Charlton, <i>State Manager, Agility Logistics and Chair of Tasmanian Logistics Committee</i> Mr Dave Coughlin, <i>Branch Manager, Mainfreight Air & Ocean, Melbourne</i> Mr Jarrad Cayzer, <i>Port Optimisation & Logistics Manager, NSW Ports</i></p>
16.15 – 16.30	Certificate Award and Closing
	<p>Moderator: Assoc Prof Vinh Thai, <i>School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i> Teams host: Assoc Prof Vinh Thai, <i>School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i> Teams Link: Click here to join the session</p>
	<ul style="list-style-type: none"> • Award of Certificate of Appreciation and Certificate of Participation Assoc Prof Vinh Thai, <i>School of Accounting, Information Systems and Supply Chains, RMIT University, Australia and Symposium Chair</i> • Concluding remarks Assoc Prof Victor Gekara, <i>School of Accounting, Information Systems & Supply chains, RMIT University</i>



SYMPOSIUM KEYNOTE SPEAKERS


	<p style="text-align: center;">Ms Jillian Carson-Jackson FNI, FRIN</p> <p style="text-align: center;"><i>President, the Nautical Institute and Managing Director JCJ Consulting</i></p>
<p style="text-align: center;">Biography</p>	<p>Ms. Jillian Carson-Jackson FNI FRIN commenced her career in the Canadian Coast Guard, graduating from the Canadian Coast Guard College as a navigation officer. With over three decades in the industry, Jillian has worked both afloat and ashore in the CCG, including 10 years as an instructor at the CCGC. Following an active role at IALA in the development of VTS Training, she moved to France to work with IALA as Technical Coordination Manager. She then moved to Australia to work with the Australian Maritime Safety Authority (AMSA) as Manager of Vessel Traffic and Pilotage Services.</p> <p>In 2016 Jillian left AMSA to set up her own consultancy, focusing on maritime technical advice and education. In May 2020 Jillian was appointed a Director of GlobalMET. Jillian represents The Nautical Institute at IALA as chair of the Emerging Digital Technologies Working Group (ENAV Committee) and the Personnel and Training Working Group (VTS Committee).</p>
<p style="text-align: center;">Keynote Overview</p>	<p>The maritime industry is known for innovation and creative solutions to address practical, real world problems. This ‘can do’ attitude has led to exploration of the oceans, developments of navigational aids and the implementation of aids to navigation. The skill set of the maritime professional has evolved at each stage in the development of technology. The pace of change continues to accelerate. Is this creating a digital divide? There are approximately 1.6 million trained, qualified and highly skilled seafarers worldwide. As we continue to see the digital transformation of the maritime industry, how is this influencing the role of the maritime professional and the skills required to fulfil that role. Skill sets that were once considered critical are becoming obsolete, while new skill sets are emerging. The presentation will look at developments in digital data and information exchange within an increasingly connected world.</p>

	<p style="text-align: center;">Mr Sal Milici</p> <p style="text-align: center;"><i>Head of Border and Biosecurity at Freight & Trade Alliance (FTA) and the Australian Peak Shippers Association (APSA)</i></p>
<p style="text-align: center;">Biography</p>	<p>Mr. Sal Milici is the Head of Border and Biosecurity at Freight & Trade Alliance (FTA) and the Australian Peak Shippers Association (APSA). FTA is a peak advocacy body for the international trade sector with a vision to establish a global benchmark of efficiency in Australian border-related security, compliance and logistics activities. FTA represents 420 businesses including Australia’s largest logistics service providers and many major importers. APSA is the peak body for Australia’s containerised exporters and importers designated under Part X of the Competition and Consumer Act 2010 and by the Federal Minister of Infrastructure and Transport. APSA represents many of Australia’s largest shippers and provides advocacy support to a number of industry associations.</p> <p>Based in Melbourne Sal provides member support as well as engaging with key stakeholders such as the Australian Border Force, Department of Agriculture, Water Resources & The Environment, and the Port of Melbourne. Sal is also instrumental in the preparation of formal submissions and is a regular commentator in trade media. Sal is a licensed Customs Broker professional, of some 20+ years standing, as well as having a breadth of experience in international freight forwarding and supply chain logistics. Sal has previously held senior brokerage roles at a number of global logistic providers including Mainfreight International, Damco and most recently Rohlig Logistics. All of which have him well versed to provide his professional advice and support to the International trading community. Importantly, Sal has played a key role in developing FTA/APSA’s response and advocacy to the COVID-19 pandemic. He is a passionate advocate of technology, innovation and efficiency to support the development of more efficient supply chains for FTA/APSA members, all cargo owners and by extension the broader Australian community.</p>
<p style="text-align: center;">Keynote Overview</p>	<p>This keynote will provide a retrospective analysis of the pandemic from a personal and broader logistics industry perspective.</p>

	<p>Mr Tristan Anderson GAppFin, BCom, CMILT</p> <p><i>Market Sector Leader – Transport GHD Advisory</i></p>
<p>Biography</p>	<p>As an accomplished port, logistics, infrastructure, property and finance professional, Tristan has held commercial, analytical and strategy development roles within major transport asset owners and operators in Australia and New Zealand including at Port of Auckland, Fonterra and the Port of Melbourne. Tristan actively contributes to national debates via published thought leadership pieces on topics ranging from property development trends, decarbonisation and digitisation of the supply-chain. Tristan is GHD Advisory’s Market Lead for the Transport Sector and is based in Brisbane.</p>
<p>Keynote Overview</p>	<p>As Governments and Ports look to move a greater share of freight on rail in order to increase landside transport network capacity and leverage the environment and amenity benefits of rail, the Australian Railway Association (ARA) have commissioned GHD Advisory to undertake research and analysis into the impediments to rail mode shift. Tristan will present some of the initial findings of this work as presented to the wider rail industry at last week’s AusRail 2020 conference.</p>

SYMPOSIUM INDUSTRY PANELISTS

	<p style="text-align: center;">Mr Brett Charlton</p> <p style="text-align: center;"><i>State Manager, Agility Logistics and Chair of Tasmanian Logistics Committee</i></p>
<p style="text-align: center;">Biography</p>	<p>Mr. Charlton has been involved in international logistics for over 30 years. He is currently the General Manager of Tasmania at Agility, Chairman of the Tasmanian Logistics Committee, National Board Member of the Australia China Business Council, and a Board Member of the Tasmanian Agricultural Producers Group. Mr. Charlton has experience with ports, shipping lines, logistics consulting and freight forwarding and is a regular commentator on freight trends and issues in local and national industry media.</p> <p>Mr. Charlton has been a regular supporter of the need to engage academia and industry and is a regular guest lecturer at the Australian Maritime College. Further, through Agility Logistics, an annual award for excellence in logistics and maritime management studies is awarded to a student at the Australian Maritime College and has recently passed the ten-year anniversary.</p> <p>Mr. Charlton has a unique view of shipping and logistics trends as his involvement in the movement of goods around the planet for a diverse range of industries provides an unbiased understanding of challenges and opportunities in many aspects of the supply chain.</p>
	<p style="text-align: center;">Mr Dave Coughlin</p> <p style="text-align: center;"><i>Branch Manager, Mainfreight Air & Ocean, Melbourne</i></p>
<p style="text-align: center;">Biography</p>	<p>Mr Coughlin has been involved in International Trade since the early 1990s. He started his career in International Banking with Westpac in Adelaide and then has moved into International Logistics in mid- 90's. From there he worked his way through each Product area of International Freight Forwarding/Customs Brokerage and Container Transport, including Container Freight Station and Warehousing. He initially started with Mainfreight when it was ISS Express Lines here in Australia in the early 2000s, as part of a joint</p>


	<p>venture in Adelaide and began with Mainfreight itself in 2012, where he was Branch Manager of the Adelaide Air & Ocean Team, winning the coveted Mainfreight Branch of The Year Australia award in 2016. In 2017 he has moved to Melbourne (with Mainfreight) to run the Air & Ocean Branch here in Tullamarine.</p>
	<p style="text-align: center;">Mr Jarrad Cayzer</p> <p style="text-align: center;"><i>Port Optimisation & Logistics Manager, NSW Ports</i></p>
<p style="text-align: center;">Biography</p>	<p>Mr. Jarrad has over 10 years’ experience in supply chain & logistics in industries including mining, rail and ports. Jarrad is the Port Optimisation & Logistics Manager for NSW Ports who are the leaseholders of key strategic assets of Port Botany, Port Kembla, Enfield Intermodal Logistics Centre & Cooks River Intermodal in NSW. Jarrad’s role requires the use of performance data and analytics to identify optimisation and improvement options across all of NSW Ports assets and to ensure a safe and efficient logistics network.</p>

Panel Discussion - COVID-19 and Maritime Logistics and Supply Chains: Contemporary Issues and Solutions


1. **Risk and Resilience**: The year 2020 has been challenging for all sectors of the maritime industry with risks brought about by the COVID—19 pandemic. Do you think the risk mitigation strategies employed by shipping, ports and other maritime sectors have been effective so far? What can be done further?
2. **Sustainability**: What are the challenges in the development and implementation of sustainable solutions in the global supply chain and maritime transport and logistics contexts? What should be done to overcome those challenges?
3. **Technology**: How do you think contemporary technological developments can be applied to supply chain and maritime transport and logistics in the aftermath of COVID-19 to deal with similar risks in the future? Challenges and opportunities?
4. **Global logistics and supply chain**: What are the key challenges in capacity management of the various maritime supply chain sectors to adapt to the fluctuating market demand in the aftermath of COVID-19? What should be done to overcome those challenges?
5. **Wrapping up**: What are the implications of the changes in risk management strategies, focus on sustainability, application of technology and other changes in operations and management on competency requirements in the maritime industry? What should be done, particularly concerning the academic and industry collaboration, to address these implications?

SYMPOSIUM MODERATORS

Opening Remark


	<p style="text-align: center;">Professor David Smith</p> <p style="text-align: center;"><i>Dean, School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i></p>
<p style="text-align: center;">Biography</p>	<p>David Smith is Dean of the School of Accounting, Information Systems, and Supply Chain at RMIT University. He has previously held professorial appointments at the University of Queensland and Monash University. David has published in leading journals including Accounting, Organizations and Society, Management Accounting Research, Accounting, Auditing and Accountability Journal, Behavioral Research in Accounting, and Journal of Accounting Literature. He is an Editor at Behavioral Research in Accounting and Accounting and Finance. He also serves as a member of a number of editorial boards, including the following ABDC A*-ranked journals: Accounting, Organizations and Society, Contemporary Accounting Research, and Management Accounting Research. David is a former member of the board of directors of the Accounting and Finance Association of Australia and New Zealand (AFAANZ) and was a former chair of the Chartered Institute of Management Accountants (CIMA) Centre of Excellence, Australasia, panel.</p>

Acknowledgement of Country


	<p style="text-align: center;">Professor Nava Subramaniam</p> <p style="text-align: center;"><i>Deputy Dean R & I, School of Accounting, Information Systems and Supply Chains, RMIT University, Australia</i></p>
<p style="text-align: center;">Biography</p>	<p>Professor Nava's research interests cover corporate sustainability and governance, Sustainable Development Goals (SDGs); management controls and assurance, and the accounting profession. She has led two ARC-Linkage funded research projects in the areas of 'Corporate Governance in the</p>

	<p>Public Sector’ and ‘Carbon Emissions Risk Management’. Her recent industry studies cover measurement and disclosure of the SDGs by Australian businesses.</p> <p>Her research work has been published in journals such as <i>Management Accounting Research</i>, <i>Journal of Accounting and Public Policy</i>, <i>AAAJ</i>, <i>International Journal of Accounting</i>, <i>International Journal of Auditing (IJA)</i>, <i>Accounting and Finance</i>, and <i>Journal of Business Ethics</i>.</p> <p>She is a CPA, and a member of the Editorial boards of AAAJ, IJA, Managerial Auditing Journal and Accounting Forum. Nava has held positions research centre directorships at Deakin University as the Director of the Centre for Sustainable and Responsible Organisations (CSaRO), and at Griffith University. She is also an adjunct professor at Amrita University, India.</p>
--	--

AMLRN 2020 Symposium Chair

	<p style="text-align: center;">Associate Professor Vinh Thai</p> <p style="text-align: center;"><i>Founder, AMLR Network School of Accounting, Information Systems and Supply Chains, RMIT University</i></p>
<p style="text-align: center;">Biography</p>	<p>Dr Vinh Thai is currently an associate professor at the School of Business IT & Logistics (BITL) of RMIT University. He is currently an Associate Editor of the <i>Asian Journal of Shipping and Logistics</i> and have published widely in leading academic journals e.g. <i>Transportation Research Part E</i>, <i>Transportation Research Part A</i>, <i>International Journal of Logistics Management</i>, <i>International Journal of Shipping & Transport Logistics</i>, <i>Maritime Policy & Management</i>, <i>Maritime Economics & Logistics</i>, etc. He was also involved in consultancy projects for ASEAN Secretariat, Japan International Cooperation Agency (JICA), World Bank in Vietnam, World Bank in Indonesia, etc. Prior to joining academia, he worked for various companies in the maritime logistics industry including Asian Pacific Shipping, P&O Nedlloyd Shipping Line, and Vietnam International Container Terminal (VICT).</p>


Moderator of Keynote Presentations

	<p style="text-align: center;">Professor Prem Chhetri</p> <p style="text-align: center;"><i>Head of Department of Supply Chain & Logistics Management, School of Accounting, Information Systems and Supply Chains, RMIT University</i></p>
<p style="text-align: center;">Biography</p>	<p>Dr Prem Chhetri is professor of geo-logistics, Head of the Department of Supply Chain and Logistics Management. Prem is known internationally for the research in spatially-integrated analytics and urban logistics. His recent research focused on port logistics, climate change, urban modelling, tourism potential mapping, emergency response, skills and training, and the application of GIS and GPS in transport, infrastructure and logistics planning.</p>

Moderator of Industry Discussion Panel

	<p style="text-align: center;">Professor Shams Rahman</p> <p style="text-align: center;"><i>School of Accounting, Information Systems and Supply Chains, RMIT University</i></p>
<p style="text-align: center;">Biography</p>	<p>Professor Rahman, a former British Commonwealth scholar, has worked with several universities in Australia, United Kingdom, and Thailand. He is an expert in the in the field of supply chain logistics and he is frequently called upon to make presentations for various professional bodies and senior executives on issues such as supply chain sustainability, talent management in logistics, lean six-sigma and quality management, reverse logistics, and theory of constraints. Professor Shams Rahman has published over 165 research papers which include articles in international journals, book chapters, and papers in international conference proceedings.</p>

Concluding Remark

	<p style="text-align: center;">Associate Professor Victor Gekara</p> <p style="text-align: center;"><i>School of Accounting, Information Systems and Supply Chains, RMIT University</i></p>
<p style="text-align: center;">Biography</p>	<p>Dr Gekara is an Associate Professor of Logistics and Supply Management in the School of Business IT and Logistics at RMIT University. His research focuses on at changing technologies, industrial transformations and the implications for the future of work and workforce skills needs across different industries. Some of his looks at container terminal automation and the changes to work and employment, the use of new technologies in seafarer training and assessment, the global regulation of seafarer certification and Australia's digital transformation and the implications for industry skills needs.</p>

ABSTRACTS OF PRESENTATIONS

Session 1: Post-COVID strategies

Presentation 1: 13.00 – 13.30

<p>Title: The role of maritime informatics in decarbonising maritime supply chains</p> <p>Authors: Mikael Lind^a Jillian Carlson-Jackson^b Singh^c André Simha^d</p> <p>^aResearch Institutes of Sweden (RISE), ^bThe Nautical Institute, ^cUniversity of Trinidad and Tobago, ^dMSC (Mediterranean Shipping Company SA)</p>	<p style="text-align: center;">Abstract</p> <p>Maritime Informatics identifies how digitalisation can contribute to the efforts of innovating and improving maritime activity. At its core lies digital collaboration, which brings the many parties closer together, supporting data-driven decision-making to provide opportunities to balance capital productivity and energy efficiency. Maritime informatics is thus concerned with taking a holistic approach to ensuring efficiency, sustainability, resilience, and safety along maritime supply chains.</p> <p>Maritime supply chains are pursued within the self-organising ecosystem of maritime transport. This means that there is no overarching (operational) body taking responsibility for the coordination and synchronisation of the transport operations pursued by the maritime transport provider. A port with its operator, a shipping company, a ship agent, or a terminal operator operating at different geographical places, all rely on information provided by others to optimise its capital productivity. In this myriad of complex, interdependent operations, operational performance of one actor can determine the level of efficiency achieved by all. Each autonomous, often competing, actor therefore need to collaborate to secure that the resources are utilised as efficient as possible. Information exchange across the Maritime Logistic chain is still very traditional in the majority of the developing world. However, the demand and recognition of reducing GHG emissions within the logistic chain is increasing every day. The initial IMO GHG Strategy, adopted in 2018, sets ambitious targets to halve GHG emission from ships by 2050, compared to 2008. The strategy includes operational measures such as speed optimisation, speed reduction, just in time arrival including operational energy efficiency measures for both new and existing ships in short and mid-term to further reduce emissions and help achieve the targets in the strategy, in particular 40% reduction of carbon intensity from shipping by 2030. Maritime informatics can support the efforts of decarbonising maritime supply chains by providing high level of predictability to the actors along the transport chain while pursuing these operational measures.</p> <p>The presentation will highlight the value of maritime informatics to support effective, efficient, and pollution free shipping for the many actors within the maritime ecosystem.</p> <p>¹Lind M., Watson R., Hoffmann J., Ward R., Michaelides M. (2020) <i>Maritime Informatics: an emerging discipline for a digitally connected efficient,</i></p>
--	---

	<p>sustainable and resilient industry, Article No. 59 [UNCTAD Transport and Trade Facilitation Newsletter N°87 - Third Quarter 2020] (https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2456)</p> <p>²Lind M., Watson R., Chua C. P., Levy D., Theodossiou S., Primor O., Picco A. (2020) <i>A Primer for a Profitable and Sustainable Maritime Business</i>, Smart Maritime Network, 2020-09-09 (https://smartmaritimenetwork.com/2020/09/09/prime-considerations-for-shipping-success/)</p> <p>³www.maritimeinformatics.org</p> <p>⁴Watson R. T., Lind M., Delmeire N., Liesa F. (2020), <i>Shipping: A Self-Organising Ecosystem</i>, in M. Lind, M. Michaelides, R. Ward, R. T. Watson (Ed.), <i>Maritime informatics</i>. Heidelberg: Springer (https://www.springer.com/gp/book/9783030508913)</p> <p>⁵Lind M., Gogh van M., Becha H., Kouwenhoven N., Lehmacher W., Lund E., Mulder H., Murphy N., Simha A. (2020) <i>Information Sharing Communities for Digitally Enabled Supply Chain Visibility</i>, Article No. 64 [UNCTAD Transport and Trade Facilitation Newsletter N°88 - Fourth Quarter 2020] (https://unctad.org/news/information-sharing-communities-digitally-enabled-supply-chain-visibility)</p>
--	--

Presentation 2: 13.30 – 14.00

Title:	Abstract
<p>Blockchain adoption in container shipping: Decentralization and reglobalization in action</p> <p>Authors: Son Nguyen ^{a,b}, Peggy Shu-Ling Chen ^a, Yuquan Du ^a</p> <p>^aNational Centre for Ports and Shipping, Australian Maritime College, University of Tasmania, TAS 7248, Australia</p> <p>^bDepartment of Maritime Transportation Economics, Faculty of Economics, Vietnam Maritime University, Hai Phong, Vietnam</p>	<p>Blockchain has been advertised and promoted as the next big jump of the maritime industry after containerization. Combining data distribution and cryptography to reduce the need of established trust between economic entities, blockchain is emerging in the technological frontier of reglobalization. However, its journey to adoption in container shipping is currently rough with limited success. Our study investigates the industry's barriers in realizing the true potentials of blockchain, shedding light on those barriers in the context of re- and deglobalization. Thematic analysis was employed on a database of thirty-two interviews with experts in Information and Communications Technology (ICT) management and container shipping operation in port operators, shipping companies, and freight forwarders, revealed fourteen challenges of deploying blockchain-based solutions. Experts recommended eleven adaptive strategies for container shipping service providers and governmental/authoritative bodies and solution providers in utilizing blockchain to create mutual benefits along the container supply chain. The results deepen the knowledge about the industry's digital transformation under the mixed effects of reglobalization and deglobalization, directing further research efforts in blockchain applications' sustainability.</p> <p>Keywords: Blockchain application, Thematic analysis, Container shipping, Cyber-physical systems, Information flow</p>

Presentation 3: 14.00 – 14.30

<p>Title: The emerging spectrum of maritime security</p> <p>Author: Peter Cook</p> <p>Maritime Security Professional</p> <p>PCA Maritime Ltd.</p>	<p align="center">Abstract</p> <p>Maritime security is becoming a common term in our consciousness, but how many people understand the scope of diversity and complexities that constitute this area? Shortly after humans first started using the maritime domain in prehistoric times, criminals followed to exploit opportunities. In response to the terrorist suicide bomb attack on USS Cole in Aden Harbour and the 9/11 attacks, the US published a National Strategy for Maritime Security in 2005, identifying “maritime security” as a specific area of security concern for the first time. Other countries followed their lead. By 2010, piracy was booming around the tropics, terrorists had used the sea as their means for several waterborne suicide bombers and the attack on Mumbai (Nov 2008) which killed hundreds of people. The exponential growth of commercial shipping, driven by global demand, stimulated both legitimate economic growth and a parallel criminal entrepreneurship. This further exacerbated the complexity and inter-connected nature of organised crime and security at sea. Defining maritime security and how to manage it was initially limited to academic interest. However, as events at sea (Somali piracy, mass maritime migration, volume of plastic waste in the sea and environmental concerns) piqued international interest, a better understanding grew of the oceans and their importance. Maritime security threats are both visible (piracy, terrorism, smuggling/trafficking, mass maritime migration, naval hegemony) and invisible (maritime cyber security, climate change). The insatiable demand of a growing population with an increasingly large consumer class, combined with the affliction of “sea blindness” (and shrinking navies) resulted in neglected threat mitigation. Despite the global pandemic, the maritime supply chain continues to deliver. As the spectrum of maritime security continues to emerge, the need for a maritime industry security strategy becomes progressively important.</p>
---	---

Presentation 4: 14.30 – 15.00

<p>Title: The Impact of COVID-19 on Maritime Transport, Logistics and Supply Chain Management : Challenges and Opportunities</p>	<p align="center">Abstract</p> <p>The maritime transport, logistics and global supply chain management today are more complex than ever. It’s time to understand, act and adopt the unavoidable changes taking place. The maritime transport and logistics sector, severely affected at the initial stage of COVID-19 and further, on the other side, is emerging with a new purpose and confidence that digitalisation could be the positive legacy of the pandemic.</p>
---	--

Author: Jai Acharya^a

^aPrincipal Consultant, International Maritime Management & Consultancy Services (IMMC), and Director, International Ocean Institute (IOI), Singapore

COVID-19 isn't the only challenge the industry is facing. The looming introduction of the regulatory compliances by International Maritime Organization's (IMO 2020), capping marine fuel sulphur content, maritime cyber security management (IMO 2021), EU SRR (Ship Recycling Regulation) - 2021 under the guidelines of Hong Kong Convention, 2009 "Inventory of Hazardous Material" (IHM) Management and the US-China trade dispute made the year 2019 a particularly challenging year too. All of the above challenges are there in the backdrop of upcoming requirements for the maritime sector to decarbonisation of shipping.

It has been observed that during the severe impact of global pandemic, the importance for digitalisation of maritime sector realised considerably and this was an opportunity to assess the operational performance of vessels, ports and maritime logistics though in reduced traffic mode. Combining with maritime cyber security management (IMO 2021) compliance, the investment in new technologies took an interesting turn towards the digitalisation, operational technology (OT) and application of artificial intelligence (AI). Many corporate business strategists, CEOs and CTOs have plans in place for pandemic scenarios and moving towards the adoption new technologies enabling them to save money and enhance the service standards to their customers satisfaction.

Digitalisation in maritime transport, logistics and supply chain management will improve the business operations with the new technology tools such as IT, OT, AI and the Internet of Things (IoT) in the areas of ship chandelling, shipping agencies, warehousing, freight forwarding and supply chain security. Digitalisation is set to transform the global shipping freight sector. It will, and already is, resulting in the greater use of artificial intelligence and more widespread utilisation of data. The technology will improve the management of end-to-end supply chains and will prove too attractive to ignore.

In the process of transformation phase, the role of international organisations and self-governed associations will have to align with the changes taking place in the industry in this pandemic scenario and prepare for the readiness to keep abreast with post-COVID responsibilities.

The role of the World Custom Organisation (WCO), Secured Custom Trade Partnership such as, Authorised Economic Organisation (AEO) Program of various countries and EU, Transport Asset Protection Association (TAPA), C-TPAT (USA) and STP (Singapore Customs) are in process of continuous transforming phase in order to cope up with pandemic with innovative changes as digitalisation of maritime

	<p>transport, logistics and global supply chain security and management.</p> <p>Introduction of innovative tools such as e-Lock and e-Net for the cargo security with minimal change in existing operation are suitable for multiple applications, giving instant alert high accuracy for any tempering. These tools are available with reusable components and reduce workload for appearance check. Operating on high information transparency amongst all stakeholders and high data integrity with blockchain technology, e-Lock and e-Net use the latest 4G/5G mobile network, GPS and LoRaWAN IoT technology through Web Platform, Mobile App and RFID Card.</p> <p>Supply Chain Risk Exposure Evaluation Network (SCREEN) Intelligence of BSI reports that while COVID-19 matters remain a primary concern, the impact created a number of additional disruptions and risks which are impacting supply chains, including cargo thefts, smuggling, and child labour. The outbreak of pandemic has led to complex and varying responses by individual governments and businesses and has wreaked havoc on supply chain continuity.</p>
--	---

Session 2: Shipping and Port Operations

Presentation 1: 13.00 – 13.30

<p>Title: Determining the guide leasing price of empty container in shipping network</p> <p>Authors: H. Hu^a and B. Du^a</p> <p>^aSMART Infrastructure Facility, University of Wollongong, NSW, Australia,</p>	<p style="text-align: center;">Abstract</p> <p>Repositioning empty container and leasing container from leasing company are mainly due to the imbalance in trade flows. How to make decision between repositioning and leasing remains a challenge in running shipping service efficiently and economically. To address such challenge, this study aims to derive guide leasing prices to support decision making. If the realistic leasing price is lower than the guide price, shipping companies should consider leasing containers; otherwise repositioning empty container is a more economical option. Both time-varying short-term and long-term guide leasing prices are derived in a shipping network with consideration of empty container devanning and laden container transportation. A two-stage modelling approach is applied: first, an empty container repositioning model is proposed with consideration of holding, transportation and lifting-on/off costs; second, inverse optimization technique is employed to derive the guide leasing prices. A real-world shipping network is adopted to compare long-term guide leasing prices among different ports and short-term guide leasing prices on different paths between a pair of ports. The results show that short-term guide leasing prices at a deficit port vary on different paths and they are correlated to the schedule of vessels.</p> <p>Keywords: Empty container repositioning, perceived leasing price, inverse optimization</p>
--	---

Presentation 2: 13.30 – 14.00

<p>Title: Effects of altering planning decisions on the efficiency of container terminals</p> <p>Authors: Buddhi Weerasinghe¹, H. Niles Perera¹, and Phillip Kiessner²</p> <p>¹ Department of Transport and Logistics Management, Faculty of Engineering, University of Moratuwa, Katubedda, 10400, Sri Lanka</p>	<p style="text-align: center;">Abstract</p> <p>Alterations in the initial plan is a common problem for any tactical level operation in an area related to transport and logistics. This paper focuses on the impact of the altering nature of the initial tactical plan of the level operations in a container terminal. We explored this problem under three causes. The integrated planning perspective is the first cause that has been identified as a key factor to be considered in the literature (Kizilay & Eliyi, 2020). Subsequently, the crane breakdowns were studied as the main uncertainty within the selected time horizon. The planner's role has been identified as the agent who makes alterations between the initial plan and the actual plan. We developed a model using system dynamics to illustrate this dynamic environment as a model. The simulation results of our model show when the expected levels are changed in the initial plan in a considered berth, it influences other berths through the</p>
---	--

<p>² Technical University of Dortmund, Dortmund, North Rhine-Westphalia, Germany</p>	<p>actions of the planners. We started the model by considering crane breakdowns as the only significant factor for uncertainties. However, we found when the impact of crane breakdowns is none, the initial plan was uncertain, and a significant number of alterations have to be enacted. We found a feedback loop that influences the next hour operation as a collective impact from a considered hour. The planners have worked on the initial plan intending to minimize the negative impact or to maximize the positive impact. Simultaneously, it was found that the planner who had worked on the yard plan had a higher (approximately 45%) impact than the impact of the planner who had worked on the vessel plan. This study is significant since the terminal efficiency is examined considering the quayside and the landside as a single system.</p> <p>Keywords: Container terminal operations, planning alterations, crane breakdowns, terminal planner performance, system dynamics, uncertainty</p>
---	--

Presentation 3: 14.00 – 14.30

<p>Title: Impact of Real-Time Yard Planning Decisions in Determining Yard Locations at Container Terminals</p> <p>Authors: J.A. Gunawardhana¹, Dr. H.N. Perera¹</p> <p>¹ Department of Transport and Logistics Management, Faculty of Engineering, University of Moratuwa, Katubedda 10400, Sri Lanka</p>	<p style="text-align: center;">Abstract</p> <p>The global container volume has been increasing over the past two decades due to the growth in seaborne trade due to globalization. To cater this massive demand container terminals tend to either expand their capacity or optimize the existing operations or consider both alternatives. To optimize the existing operations, Container Stacking Problem (CSP) is one of the decision problems which determines the exact yard locations for incoming containers. There are two approaches in CSP; Static Container Stacking (SCS) and Dynamic Container Stacking (DCS). This study aims to investigate the impact of real-time yard planning decisions in determining exact yard locations for incoming containers. Further, this research problem was addressed with the assistance of three research objectives; establish a real-time yard planning model to deal with a higher degree of uncertainty in container terminals; reduce container handling costs by minimizing yard crane travelling distance, horizontal-transport vehicle travelling distances and optimizing workload distribution of yard blocks; analyze the performance of DCS and SCS to identify the best approach to determine exact yard locations. Therefore, this study introduces a unique solution for DCS while considering both optimization and artificial intelligence approaches. The solution contains a three-step methodology which is based on a Rule-Based System. Additionally, the developed model determines yard bays for incoming containers in real-time at the</p>
--	--

	<p>point of container arrival while minimizing the container handling cost, considering the uncertainty and unexpected events in container terminals. The developed model has been validated for the discharging operation through data which were collected at a leading container terminal at Port of Colombo. However, computational test results reveal that container handling cost which are incurred from waterside horizontal-transport subsystem to storage subsystem are reduced significantly by the developed model. Further, this study emphasizes that comparing to SCS approach, DCS is the best approach for CSP.</p> <p>Keywords: Seaport container terminal; container terminal operations; dynamic container stacking problem; real-time decision-making; rule-based systems; optimization</p>
--	--

Presentation 4: 14.30 – 15.00

<p>Title: Port Strategies to Deal with Global Shipping Alliances and Independent Carriers</p> <p>Authors: Sithara Buddhini and Yapa Mahinda Bandara</p> <p>Department of Transport and Logistics Management, Faculty of Engineering, University of Moratuwa, Katubedda, 10400, Sri Lanka</p>	<p style="text-align: center;">Abstract</p> <p>The formation of shipping alliances is one of the very dominant developments in the liner shipping industry in the last two decades, and the same alliances have exerted some market power over ports and port areas. On the contrary, independent carriers compete with alliances to get into contracts with ports or terminals. As a result of the competitive shipping environment, ports are exposed to intra-port competition to bid for shipping services. Seaports have been experiencing the bargaining power of alliances in the stage of contract signing. To negotiate with shipping lines, ports have to devise strategies to retain and attract more shipping services both from the alliances and the independent carriers. This paper aims to identify strategies used by seaports in dealing with global shipping alliances and independent carriers. A questionnaire was designed to collect data from six industry experts working in managerial positions in port container terminals at Port of Colombo. The classical expert model was used as the analysis method of this research which gives the experts to make their judgments under three quantiles with different possibilities. This paper analytically investigated the current and future port strategies to retain and attract the services of global shipping alliances and independent carriers to the port. The paper revealed that giving offers to shipping lines from terminal operators, port connectivity (the frequency of berthing), and enhancing port efficiency are the main strategies to attract and retain services from both shipping alliances and independent carriers. Besides, the results showed the importance of the knowledge on global maritime trade-related knowledge especially about the variation of container ship size in the shipping industry to create operational and marketing plans to execute these strategies.</p>
--	---

	Keywords: Global Shipping Alliances, Independent Carriers, Terminal Operators, Structured Expert Judgment, Classical Expert Model, Port Strategies.
--	--

Session 3: Supply chains

Presentation 1: 13.00 – 13.30

<p>Title: Evaluating the Role of Dry Ports in the Port-Hinterland Logistics: A Conceptual Framework and Empirical Studies in Vietnam from a Multi-stakeholder Approach</p> <p>Authors: Lam Canh Nguyen^a Vinh V. Thai^b Duc Minh Nguyen^c</p> <p>^aInternational School of Education, Vietnam Maritime University, ^bSchool of Accounting, Information Systems and Supply Chain, RMIT University, ^cFaculty of Economics, Vietnam Maritime University,</p>	<p style="text-align: center;">Abstract</p> <p>The paper aims at developing a conceptual framework to evaluate the role of dry ports in the port-hinterland logistics performance. Based on an extensive literature review, we developed a hierarchy of evaluating criteria from the perspectives of three main stakeholder groups, i.e. dry port users, seaports and community. Dry port users include all parties who use the dry port services to move the cargo between the seaports and designated hinterlands, such as shippers, shipping lines, freight forwarders, transport companies, logistics companies and economic zone operators. These parties share the primary interest of logistics performance between the regional hinterland and the gateway seaports when using dry ports. The seaport group consists of maritime terminal operators, seaport-based companies and port cities whose interests in the dry port project are expanding further hinterland and relieving the seaports from overcapacity issue and negative social and environment effects. Finally, the community group are non-logistics parties who care about the social-economy impact of the dry port project, job creation and reduction of negative externalities. This group include the central and local governments, local residents and road users who influence and are influenced by the dry port project. A face validity was then carried out to validate the initially proposed framework given the context of Vietnam, followed by a survey gathering the evaluation of dry port role from the perspectives of three stakeholder groups. The empirical study pointed out that the most important group in developing dry ports is dry port users while the roles of seaports and communities are also significant and not much different from each other. An analysis of these criteria's weight from the perspectives of each group was given accordingly before the conclusion was presented.</p> <p>Key words: dry port, hinterland, Vietnam, multi-stakeholder, empirical, port</p>
--	--

Presentation 2: 13.30 – 14.00

<p>Title: The Role of the Regional Comprehensive Economic Partnership (RCEP) in the International Supply Chains from ANZ's Perspective: Opportunities and Challenges</p>	<p style="text-align: center;">Abstract</p> <p>International trade agreements play a vital role in the international supply chains operations. It is an international trade legal framework for governing trade among nations. It creates both opportunities and challenges for different counties. Recently, all ten ASEAN countries, China, Japan, South Korea, Australia and New Zealand signed the world's largest free trade agreement- Regional Comprehensive Economic Partnership (RCEP) in the Asia-Pacific region. The purpose of the research</p>
---	--

<p>Authors: Michael Wang¹ Bill Wang¹ Peter Shi² Geoffrey Chow³</p> <p>¹Department of Business Information System, Auckland University of Technology, Auckland, New Zealand</p> <p>^bDepartment of Management, Macquarie Business School, Macquarie University, Sydney, Australia</p> <p>^cNew Silk Road Global Institute, Melbourne, Australia</p>	<p>is to help both researchers and practitioners to understand the role of the RCEP in the international supply chains. The Australian and New Zealand researchers gathered to discuss the opportunities and challenges that relate to the agreement, which is an ASEAN-led initiative, aims to lower tariffs, open up trade in services, and promote investments across the different economies. Based on the discussion, and published literature on the RCEP, the study identified the relevant opportunities, RCEP enlarges and facilitates the international supply chain collaborations in the Asia-Pacific region. For instance, the firms with international supply chains might face tariffs even within an FTA because their products contain components that are made elsewhere. A product made in Vietnam that contains Australian parts might face tariffs elsewhere in the ASEAN free trade zone. Under RCEP, parts from any member nation would be treated equally, which might give companies in RCEP countries an incentive to look within the trade region for suppliers. This also may lead to increased demand for international logistics and trade in goods in the region. However, we found that RCEP may bring some challenges into the manufacturing sector in Australia and New Zealand. RCEP can further reduce national manufacturing competitiveness in ANZ. Moreover, although China already has a number of bilateral trade agreements, this is the first time it has signed up to a regional multilateral trade pact, the implications of China's involvement is not very clearly. Future researches may be conducted to mitigate the negative impacts of RCEP on New Zealand and Australia's economy from different perspectives. This paper may contribute to the international supply chain management literature.</p> <p>Keywords: International trade, supply chain, international logistics, RCEP, Asia-Pacific region</p>
--	---

Presentation 3: 14.00 – 14.30

<p>Title: Shipping Connectivity Modelling: An application of flow matrix</p> <p>Authors: Lamphai Trakoonsanti^a, Prem Chhetri^a, Shahrooz Shahparvari^a</p> <p>^aSchool of Accounting, Information Systems & Supply Chain, College of Business and Law, RMIT</p>	<p style="text-align: center;">Abstract</p> <p>Abstract - In the recent decades, the global maritime supply chain and increased logistics integration in containerised trade have greatly affected port operations, inter-port relationships and business model in container shipping services. This research aims to develop a range of flow indices, including connectivity, centrality, accessibility and flow matrix to model liner shipping connectivity, visualise and map flow indices. Two sets of data as AIS, and GIS have been used in this research. The processed AIS data offer accuracy and a valuable source of vessel movement information. The GIS analysis data enables to analyse the quantitatively values for port, vessel flows and directions. Indeed, this research draws upon an advance in the current knowledge on port and shipping management by</p>
--	---

<p>University, Melbourne, Australia</p>	<p>integrating a set of tools for applying various flow indices in liner shipping industry. Further, early analyses of evolution on the containerised cargo transportation were highly theoretical innovation as it will test flow matrix to model global maritime shipping network. The outputs of this research will inform evidence-based decision making to help plan for future investment in port infrastructure, devise port-specific strategies to compete in a globalised market and improve demand management and scheduling.</p> <p>Keywords: Flow matrix, Visualisation, AIS, Liner shipping, Port Connectivity, Maritime Logistics</p>
---	--

Presentation 4: 14.30 – 15.00

<p>Title: Implications of Logistics Cluster Benefits: An Australian Case study</p> <p>Authors: Shanta Hallock^a, Vinh Thai^a, Konrad Peszynski^a</p> <p>^aSchool of Accounting, Information Systems & Supply Chain, College of Business and Law, RMIT University, Melbourne, Australia</p>	<p style="text-align: center;">Abstract</p> <p>Purpose: Data currently available from the Australian Logistics Council (ALC) indicate that the freight logistics industry contributes about 9% to Australia’s GDP with \$132 billion value-added and 1.2 million people employed in 2013, providing the context of logistics clusters. This paper aims to explore the impact on the firm’s logistics performance (FLP) of benefits derived from logistics activity in clusters, or logistics cluster benefits (LCB).</p> <p>Design/methodology/approach: This study empirically explores the outcomes of LCB on the firm’s logistics performance based on a conceptual framework developed from a literature review. An email survey was administered to a population of more than 5,000 firms in logistics, retail, manufacturing and agro-industries in Australia commencing in November 2018, over five months, with 289 usable responses received. Factor analyses (EFA and CFA) and structural equation modelling (SEM) were used for data analysis.</p> <p>Findings: LCB was confirmed to have positive relationships with constructs that represented FLP. These constructs were service quality (SERVQUAL) and internal efficiency (INTNLEFF).</p> <p>Practical implications/Originality/Value</p> <p>There are many implications of this research. In terms of academic contribution, this research is one of the only studies, to the best of our knowledge, which explores and empirically validates the outcomes on the firms’ logistics performance of LCB. This enriches the knowledge of clusters in general and logistics clusters in particular. The empirical findings from this research have produced measures of SERVQUAL and INTNLEFF that can be used by the firm in its strategic and operational decisions. Knowledge of the benefits to firms and industry can supplement decision tools used by policymakers when resourcing infrastructure investments, for logistics</p>
--	--

	<p>development, in Australia. Confidence in the beneficial outcomes to the industry also empowers policymakers in the formulation of strategies to assist the resilience of industry and supply chains.</p> <p>Keywords: Firm's logistics performance, firm's logistics service quality, firm's logistics efficiency, Logistics cluster benefits, SC resilience, Australia</p>
--	---

Session 4: Sustainable Development

Presentation 1: 13.00 – 13.30

<p>Title: CSR Leadership and CSR Culture as Antecedents of CSR Performance: A Study of the Transport Logistics Industry in Australia</p> <p>Authors: Schavana Phillips^a Vinh V. Thai^a Zaheed Halim^a</p> <p>^aSchool of Accounting, Information Systems & Supply Chain, College of Business and Law, RMIT University, Melbourne, Australia</p>	<p style="text-align: center;">Abstract</p> <p>Purpose - This study investigates the antecedents of CSR performance in the context of the Australian transport logistics industry. Specifically, this research aims to examine how corporate social responsibility in leadership (CSRL) and culture (CSRC) as antecedents, affect CSR performance (CSRP).</p> <p>Design/methodology/approach - This research employs a quantitative method of data collection. Based on a comprehensive literature review, a conceptual framework was proposed, upon which a survey questionnaire was administered with a sample of 83 managers in the transport logistics organisations in Australia. Subsequently, survey data were analysed using SEM technique.</p> <p>Findings - It was found that there is a significantly positive relationship between CSRL and both social and environmental aspects of CSRP as well as CSRC. Meanwhile, CSRC, as an antecedent, significantly influences environmental performance but not social performance. The contributions of this research are multi-fold.</p> <p>Research limitations/implications - The main limitation of this research is the small sample size, and the survey distribution and data collection were restricted in the context of Australia. In terms of theoretical contribution, this research, unlike others, identifies and refines the capabilities of a CSR Leader (CSRL) and reviews CSR cultural considerations (CSRC) through a systematic review of the literature and the empirical research findings. It contributes to the literature by explaining a full range of factors related to CSR performance.</p> <p>Practical implications This research may inform leaders on the design and implementation of a CSR culture that guides social and environmental policies to enhance performance and other outcomes. Findings from this research may also provide incentives for leaders and managers to invest resources in CSR focused leadership and culture awareness development so as to enhance CSR performance and other business outcomes.</p> <p>Value - First, to the best of our knowledge, this research is one of the first studies which conceptualises CSR leadership (CSRL), and CSR culture (CSRC) through a systematic review of the literature and validate these theoretical constructs through the research findings. Besides, this research also contributes to enhancing knowledge on how leadership and culture affect firm performance in the CSR-focused context.</p>
--	---

	Keywords: CSR leadership, CSR culture, CSR performance, Australia, Transport logistics
--	--

Presentation 2: 13.30 – 14.00

<p>Title: Towards Port Sustainability: A Comparative Analysis and Implications</p> <p>Authors: Saeyeon Roh^a Vinh V. Thai^b Gi-Tae Yeo^c Hyun-mi Jang^d</p> <p>^aUniversity of Plymouth, Plymouth, UK ^bRMIT University, Melbourne, Australia ^cUniversity of Incheon, Incheon, South Korea ^dPusan National University, Busan, South Korea</p>	<p style="text-align: center;">Abstract</p> <p>Purpose – The purpose of this paper is to explore the main factors that shape sustainable port development and their priorities in a comparative case study of Singaporean and Korean ports and examine how those ports implement sustainable development practices.</p> <p>Design/methodology/approach – The multi-phased mixed methods are adopted in this study, combining semi-structured in-depth interviews and Fuzzy Analytical Hierarchy Process (FAHP). Firstly, the main factors and associated indicators for sustainable port development were explored through a comprehensive literature review. Secondly, for validation purposes, semi-structured in-depth interviews were conducted with 69 port managers in Singapore and Korea. Lastly, FAHP was performed to analyse the priorities of the proposed sustainable port development factors.</p> <p>Findings – Port managers from both countries indicated that all proposed factors and associated indicators should be considered for evaluating sustainable port development. Through FAHP, port managers both in Singapore and Korea indicated that Optimized Operation Planning is the most important factor while Internal Social Program and External Environmental Program are the least important factor in Korea and Singapore respectively.</p> <p>Research limitations/implications – This study confined its scope of research to sustainable port development from the port managers’ perspective. Future studies can expand the research scope to include the view of different stakeholders of port operations and development.</p> <p>Practical implications – The validated sustainable port development factors and associated indicators provide insights to port managers on how their port should develop sustainably. Given the priorities ranked by the importance of these factors, port managers can identify the areas to be focused on so as to achieve sustainable port development.</p> <p>Value – This research contributes to theory building by having empirically identified and validated the sustainable port development factors and associated indicators considering all three aspects of sustainability i.e. economic, social and environmental development. The current research has also revealed the ranked important factors for sustainable port development from the port managers’ perspective, thus these can</p>
---	--

	<p>be used as a guideline by port authorities and port operators elsewhere.</p> <p>Keywords Sustainable port development, FAHP, Green port, Singaporean ports, Korean ports, Comparative analysis.</p>
--	---

Presentation 3: 14.00 – 14.30

<p>Title: Barriers in Implementing Sustainable Development Goals in Seaports</p> <p>Authors: Hansini Charupraba Katuwawala^a and Yapa Mahinda Bandara^a</p> <p>^aDepartment of Transport and Logistics Management, University of Moratuwa, Sri Lanka</p>	<p style="text-align: center;">Abstract</p> <p>Sustainable development goals (SDGs) are considered as the blueprint to accomplish the ultimate objective of global prosperity by the year 2030. To accomplish those goals, all industries are needed to incorporate SDGs into their regular business processes. Seaports as multiproduct industries are critical in achieving global sustainability due to their ability to influence both landside and seaside service operators. Despite of their significance in the international supply chain, they are slow to adopt operational strategies aligning to SDGs in their operations. This paper aims at exploring barriers that deter seaports from incorporating SDGs into their operational strategies. The perception of port managers was used as the basis for the research along with an extensive literature review on the topic. The perception of the port managers was explored using semi-structured interviews and a questionnaire-based survey of 55 port managers representing two major international ports in Sri Lanka. Exploratory Factor Analysis was employed to derive significant barriers. A thematic analysis and a frequency analysis were also incorporated to explore the understanding of port managers regarding port sustainability. The research primarily revealed four constraints that discourage ports from implementing SDGs, namely, deficient collaborative policies, structural and managerial constraints, market constraints, and the absence of an established global framework for ports relating to SDGs. Further, the research also unveils the possibility of port sustainability being affected by the overall managerial attitude of organizations towards sustainability.</p> <p>Key Words: Sustainable Development Goals, Seaports, Barriers, Port sustainability, Exploratory Factor Analysis</p>
--	---

Presentation 4: 14.30 – 15.00

<p>Title: The Impact of Logistics Activity on the Environment Sustainability at the Muscat Industrial, Oman</p>	<p style="text-align: center;">Abstract</p> <p>Introduction: Logistics play a key role in carbon dioxide (CO₂) which among 63% of business customers who think that managing logistics will eliminate the pollution buildup. A good logistics system will contribute to the economic, environmental</p>
--	--

Authors: Noorul Shaiful Fitri Abdul Rahman^a, Mouza Nassar Al-Sariri^b and Abdelsalam Adam Hamid^c

^aAssociate Professor, Department of Logistics Management, International Maritime College Oman, Suhar, Sultanate of Oman.

^bJunior Researcher, Department of Logistics Management, International Maritime College Oman, Suhar, Sultanate of Oman.

^cAssistant Professor, Department of Logistics Management, International Maritime College Oman, Suhar, Sultanate of Oman.

security and increase mobility of freights and passengers which less of pollution.

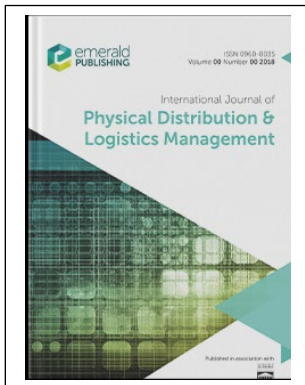
Purpose: The Muscat Industrial is rapidly growth as an industrial estate which configuring with the vision of Sultanate of Oman Logistics Strategy (SOLS) 2040. Due to this development, the logistics activity has dramatically changed from both inbound and outbound flow aspects which leads to the increase of pollution, particularly air pollution. Therefore, this research intends to study the impact of logistics activity on the environment sustainability in Muscat industrial, Oman.

Methods: A set of survey questions has been developed and distributed to the employees of the Muscat industries which directly involve to the logistics activity. In this study, the uses of a random sampling technique with the sample size of 100 respondents were analyzed.

Results: In the industrial area of Muscat, where the logistics are operating more traditional may reduce its adverse and treacherous effects. The result discloses that recycling process is one of the best option to control the pollution level while the implementation of the green logistics plan would also be beneficial for the environment and residents.

Contributions: This research will further support the Muscat Industrial to manage the logistics activity which enable to adapt the green logistic system for conservation of environment. Also, the enhanced value addition of Muscat industrial can be achieved by considering the green logistics through formulates a unique model. Finally, this study has also proposed an intellectual framework for the future researchers to examine these elements.

SPECIAL ISSUES OF SUPPORTING JOURNALS



Supply Chain Management in an Era of Reglobalization

Guest Editors:

Sobhan (Sean) Asian, La Trobe University, Australia

S.Asian@Latrobe.edu.au

Tsan-Ming Choi (Jason), The Hong Kong Polytechnic University, Hong Kong Jason.Choi@Polyu.edu.hk

Richard Oloruntoba, University of Newcastle, Australia

Richard.Oloruntoba@Newcastle.edu.au

URL:

<https://www.emeraldgrouppublishing.com/journal/ijpdlm/supply-chain-management-era-reglobalization>



Post COVID-19 Global Trade and Business Environment And Maritime Supply Chain

Guest editors:

Associate Professor Vinh Thai, RMIT University:

vinh.thai@rmit.edu.au

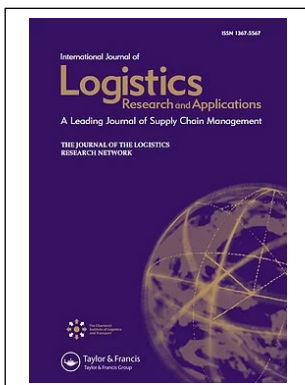
Professor Shams Rahman, RMIT University:

shams.rahman@rmit.edu.au

Professor Shuo Ma, World Maritime University: sm@wmu.se

URL:

<https://www.emeraldgrouppublishing.com/journal/mabr/post-covid-19-global-trade-and-business-environment-and-maritime-supply-chainm>



Enhancing Supply Chain Resiliency in an Era of Reglobalization

Guest editors:

Sobhan (Sean) Asian, Ph.D. (Co-Guest Editor)

Program Director-Supply Chain and Logistics, La Trobe Business School, La Trobe University, Australia

Email: S.Asian@latrobe.edu.au

Gang Chen, Ph.D. (Co-Guest Editor)

Professor, Shanghai Maritime University, China; Aalborg University, Denmark

Email: gc@mp.aau.dk

Guo Li, Ph.D. (Managing Guest Editor)

Professor, School of Management and Economics, Beijing Institute of Technology, China

Email: liguo@bit.edu.cn

Suresh P. Sethi, Ph.D. (Co-Guest Editor)

Eugene McDermott Chair Professor, Naveen Jindal School of Management, The University of Texas at Dallas, USA

Email: sethi@utdallas.edu

URL: <https://www.journalconferencejob.com/sc-resiliency-reglobalization>