



## SCHOOL OF BUSINESS RESEARCH SEMINAR SERIES

### Building Circular Supply Chains for Fostering Sustainable Development

**DATE:** Friday 24 November 2023

**TIME:** 10:00am – 11:00am

**MEETING DETAILS:** Learning Studio 78, Level 7, IPSQ  
& Zoom Online (Meeting ID: 827 0803 7070,  
Password: 517712)

**RSVP:** COB, Thursday 23 November 2023

**CONTACT:** [business.research@westernsydney.edu.au](mailto:business.research@westernsydney.edu.au)

**PRESENTER:**

Dr. Rama K.  
Ramanathan

School of Business,  
Western Sydney  
University



**ABSTRACT:**

Recent studies conducted by international agencies, consulting firms, and think tanks, emphasise that the continuation of current consumption levels is likely to put many of Earth's resources at risk of being scarce by the mid- to late - 21st century with a surge in demand for many materials. It is in this context that a Circular Economy (CE), which is an industrial system that is restorative or regenerative by intention and design, is seen as a trillion-dollar opportunity, with huge potential for innovation, job creation and economic growth. Way back in 2014, The World Economic Forum report titled "Toward the Circular Economy: Accelerating the Scale-Up Across Global Supply Chains" had emphasised that, since supply chains are the bedrock of the world economy, the transformation of supply chains will necessarily have to be at the core of Circular Economy (CE) implementation and success. In January 2023, at the 12th UN Global Compact-Accenture CEO Study Launch it was revealed that global supply chains were responsible for 60% carbon emissions and that the supply chains of fashion, food, freight, automotive, and electronics industries make up 50% of the global emissions. Thus, considerable interest has emerged in recent years on possible approaches that can be taken to build circularity into global supply chains.

It is interesting to note that, in the Asia-Pacific region, the ASEAN member countries have reached consensus that they need a new economic model that looks beyond the traditional ‘take, make, use, dispose’ economy, and embraces resource efficiency. While they recognise that multi-dimensional initiatives are needed, one of their focus areas is on fostering the transformation of traditional supply chains (SCs) into circular supply chains (CSCs).

This presentation aims at sharing some of the ideas that have evolved during the applied research work that has been carried out by Rama K. Ramanathan for the Japanese Think Tank, “The Economic Research Institute for ASEAN and East Asia (ERIA)” and the ASEAN Secretariat over the past three years in the thematic area of “Building Circular Supply Chains for Promoting Sustainable Development in the ASEAN Region”. The presentation will initially conceptualise a CSC based on a survey of extant literature. This will be followed by a brief discussion on three distinct aspects, that need to be evaluated to examine the extent of circularity (EoC) of a SC. These are: CE enablers for a CSC; CE barriers for a CSC; and key areas that need to be looked at in building a CSC. This will be followed by a brief presentation of possible initiatives that have been taken to build circularity into supply chains based on examples from the ASEAN region. The presentation will conclude with a discussion on generic implementation approaches needed at the micro-, meso-, and macro-levels for CSC transformation.

## BIOGRAPHY:

Dr. Rama K. Ramanathan, has been associated with the Western Sydney University since 1998. He joined the University of Western Sydney (Nepean) in February 1998, and worked in postgraduate business management programs related to operations, technology, and quality management. When he left in 2006 to become the Head/Director of the United Nations ESCAP - Asian and Pacific Centre for Transfer of Technology (UNESCAP-APCTT), he was coordinating the Business Systems Program at the School of Management of the University of Western Sydney. After completing his assignment with the United Nations in 2012 and returning to Sydney, Rama has been a Teaching Academic on the MBA Program at the School of Business/SGSM at Western Sydney University, while continuing with his international consulting and research. He is currently an Adjunct Professor at the School of Business. His current postgraduate teaching, research and international consulting focus is on the transfer and application of Industry 4.0 technologies in operations, logistics, and supply chain management for enhancing competitiveness and promoting a circular economy.

Rama’s professional experience spans over five decades in industry, management consulting, academia, and the United Nations international civil service. He has produced Ph.D. students and supervised over 50 master’s theses in the field of management of technology. He has edited two books, contributed chapters to several books, and published in international refereed journals such as Technological Forecasting and Social Change, Technovation, Science and Public Policy, International Journal of Technology Management, IEEE Transactions in Engineering Management, Business Process Management, International Journal of Manufacturing Technology, and International Journal of Networking and Virtual Organizations. Over the past three decades, he has undertaken capacity building, research, and consulting assignments in management of technology for several United Nations agencies, the Asian Development Bank, the European Commission, Japanese and Korean think tanks, and the Ministries of Science and Technology of several governments in the Asia-Pacific region.