

E-Procurement

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Who am I?

- Associate Professor Ferry Jie has maintained a high quality of research throughout his academic career including international scholarly leadership in the areas of supply chain management and logistics, including being invited to be keynote speaker and to give public lectures at symposiums and international conferences in Indonesia, Malaysia, Vietnam, China, UK and Australia. From 2015 to now, published more than 52 refereed journal articles—including 21 articles in Q1 and 12 articles in Q2, and 18 refereed conference papers. Furthermore, Dr Jie has received research grants/awards adding up to over \$1.6 million between 2010 and 2020.

Recent Research Grants (1)

- Business continuity and resilience: capacity building and upskilling post-COVID-19, Department of Jobs, Tourism, Science and Innovation (JTSI), 2020 – 2021, \$208,423.
- Managing transport system investment risk: enhancing patronage predictions and adapting strategic asset management and appraisal processes to account for emerging trends and uncertainty, iMOVE Australia Limited, iMOVE CRC, 2019 - 2020, \$94,008.
- Optimising regional SME resilience and employment workflow by customer-led (DIY) re-engineering of financial planning and advisory services supply chains. , Edith Cowan University, ECU Industry Engagement Grant, 2019 - 2020, \$141,452.
- Examining residents waste source behaviour: an indication of the effectiveness of the three-bin rollout campaign by Joondalup City council, City of Joondalup, Grant, 2020, \$90,023.
- Planning intermodal and general logistics infrastructure for the future needs of Perth, iMOVE Australia Limited, iMOVE CRC, 2018 - 2019, \$321,200.
- RailSmart Wanneroo Planning Support System, Department of Industry, Science, Energy and Resources, Smart Cities and Suburbs Program, 2018 - 2019, \$777,000

Recent Research Grants (2)

- Preparation and Delivery of Research Reports on Current Rail Topics: a) Social Licence for Freight Rail b) Diesel Locomotive Energy Optimisation and CO2 reduction, Australasian Centre for Rail Innovation, Grant, 2019, \$10,000.
- Cross docking: A review of models and applications, Edith Cowan University, ECU Collaboration Enhancement Scheme - 2018 Round 1, 2018 - 2019, \$6,650.
- The Effect of Technology Readiness of Halal Meat on halal Meat Logistic Performance, Ministry of Research Technology and Higher Education of the Republic of Indonesia, International Research Collaboration and Scientific Publication Grant, 2018 - 2020, \$15,000
- Gauging Supplier Trustworthiness through Data Analytics: Towards an Ontology-driven Business Intelligence Framework, Edith Cowan University, ECU Collaboration Enhancement Scheme – 2017 Round 2, 2018 - 2019, \$8,787.

COVID-19 and SCM

- <https://www.youtube.com/watch?v=z-6XoIOtbEg> FAO
- https://www.youtube.com/watch?v=18S_3IE_MKBk
- <https://www.youtube.com/watch?v=ofr0LTFbFdw> COVID 19- the biggest challenge SC of all
- https://www.youtube.com/watch?v=TfUFVH_WIIP4 COVID 19-Global Food Security

What is a Supply Chain?

A **supply chain** consists of the flow of products and services from:

- Raw materials manufacturers
- Component and intermediate manufacturers
- Final product manufacturers
- Wholesalers and distributors and
- Retailers

Connected by transportation and storage activities, and **Integrated** through information, planning, and integration activities

Many large firms are moving away from in-house **Vertically Integrated** structures to Supply Chain Management

What is Supply Chain Management?

The planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities ... also includes coordination with channel partners, which can be suppliers, intermediaries, third party service providers, and customers.

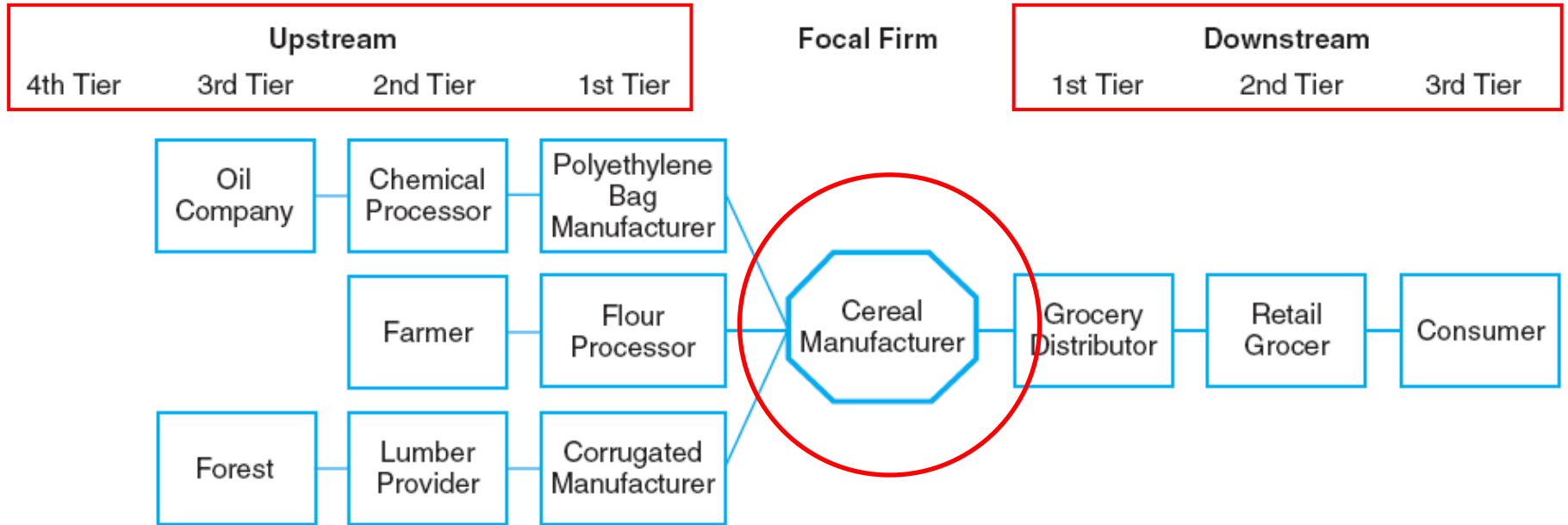
Council of Supply Chain Management Professionals

The design and management of seamless, value-added processes across organizational boundaries to meet the real needs of the end customer.

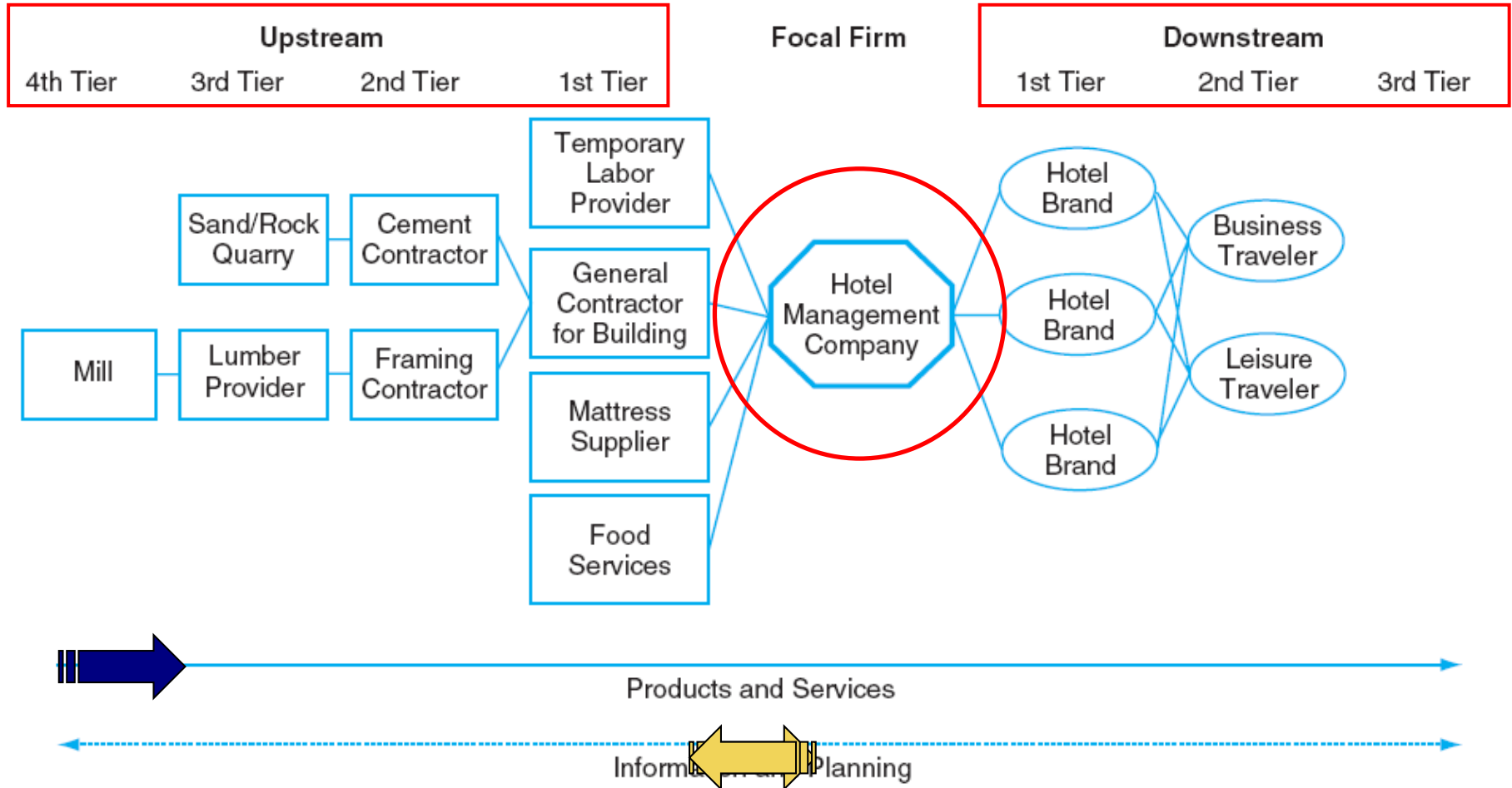
Institute for Supply Management

The design, planning, execution, control and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand, and measuring performance globally.

Supply Chain: Manufacturing Example



Supply Chain: Service Example



- **Purchasing**

- The transactional function of buying products and services. In a business setting, this commonly involves the placement and processing of a purchase order.

- **Procurement**

- Refers to the process of managing a broad range of processes that are associated with a company's need to procure goods and services that are required to manufacture a product (direct) or to operate the organization (indirect).

- **Strategic sourcing**

- Essentially, the strategic sourcing process is broader and more comprehensive than the procurement process. Strategic sourcing takes the process further, focuses more on supply chain impacts of procurement and purchasing decisions, and works cross-functionally within the business firm to help achieve the organization's overall business goals.

Managing Procurement Processes

- Determine the type of purchase
- Determine the necessary levels of investment
- Perform the procurement process
- Evaluate the effectiveness of the strategic sourcing process
 - Were the user's needs satisfied?
 - Was the investment necessary?

Procurement Price

- Sources of Price
 - Commodity markets
 - Price lists
 - Price quotation
 - Negotiation
- The objective of the procurement process is to purchase goods and services at the “best” price, which may not be the lowest price per unit at the vendor source.

Figure 13-11 e-Sourcing and e-Procurement

- **Industry Analysis and Supplier Identification:** Provides valuable information on supplier industries and facilitates development of candidate supplier lists for specific commodities, geographies, and product types.
- **Analytical Tools:** Supplier selection, bid, spend, and performance management analytics.
- **Management of RFI/RFQ/RFP Processes:** Electronic support for the preparation, submission, and evaluation of these repetitive processes.
- **Requisition and Purchase Order Process:** Provides needed automation of purchase order and of item selection from central resources such as online catalogs.
- **Online Negotiations:** Supports real-time sourcing, for example, through online bidding or reverse auction.
- **Collaboration Tools:** Used to support collaborative sourcing with other functions and divisions in same organization, with other organizations, and interaction and electronic connections with suppliers.
- **Logistics Procurement:** Responsibility for e-procurement of logistics services such as transportation, forwarding, etc. Utilizes a growing number of tools and technologies, for example, online bidding, to facilitate and improve efficiency of logistics procurement processes.
- **Project Management Capabilities:** By standardization and improvements in cost, quality, and time.
- **Knowledge Management:** Provides centralized, computerized availability of past, current, and future information relating to purchasing and sourcing activities. Serves as knowledge resource for those who are involved in e-sourcing and e-procurement.
- **Contract Management:** Fulfilling needs relating to legal contracts or agreements with suppliers.

- The use of electronic capabilities to conduct activities and processes relating to procurement and sourcing
 - Advantages
 - Disadvantages

Considerations for e-Sourcing & e-Procurement

- The use of electronic capabilities to conduct activities and processes relating to procurement and sourcing
- Which of These Solutions Should be Considered
 - Advantages
 - Lower operating costs
 - Reduced sourcing time
 - Improved control over inventory and spending
 - Disadvantages
 - Security
 - Loss of personal contact

Procurement Video Presentation

- <https://www.logisticsbureau.com/procurement-tips-2013/>

- Primary benefits of e-procurement include
 - Cost savings
 - Frees-up time to concentrate on core business
- eProcurement systems
 - Concentrate large volumes of small purchases with a few suppliers, using e- catalogues, available to the organization's users.
- Reverse auctions
 - Pre-qualified suppliers enter Web site & at pre-designated time & date, try to underbid competitors, monitoring bid prices until the session is over.

Advantages

Figure 13-12

Advantages of Electronic Procurement

Lower Operating Costs

- Reduce paperwork
- Reduce sourcing time
- Improve control over inventory and spending

Improve Procurement and Sourcing Efficiency

- Find new supply sources
- Improve communications
- Improve personnel use
- Lower cycle times

Reduce Procurement Prices

- Improve comparison shopping
- Reduce overall prices paid

Digital Supply Chain

- <https://www.logisticsbureau.com/the-digital-supply-chain-with-mathew-smith/>

- Thank you very much indeed for listening
- Any questions