



**Latin America/Caribbean and Asia/Pacific
Economics and Business Association**

An initiative of the Inter-American Development Bank and the Asian Development Bank Institute

Fifth LAEBA Annual Meeting
Singapore – July 15th, 2009

Supply Chain Dynamics in Asia

Ruth Banomyong – Thammasat University

Sponsored by



**Inter-American Development Bank
Integration and Trade Sector
Institute for the Integration of Latin
American and the Caribbean (INTAL)**



Supply Chain Dynamics in Asia

Assoc. Prof. Ruth Banomyong (PhD)
Director, Centre for Logistics Research
Thammasat University, Thailand

Agenda

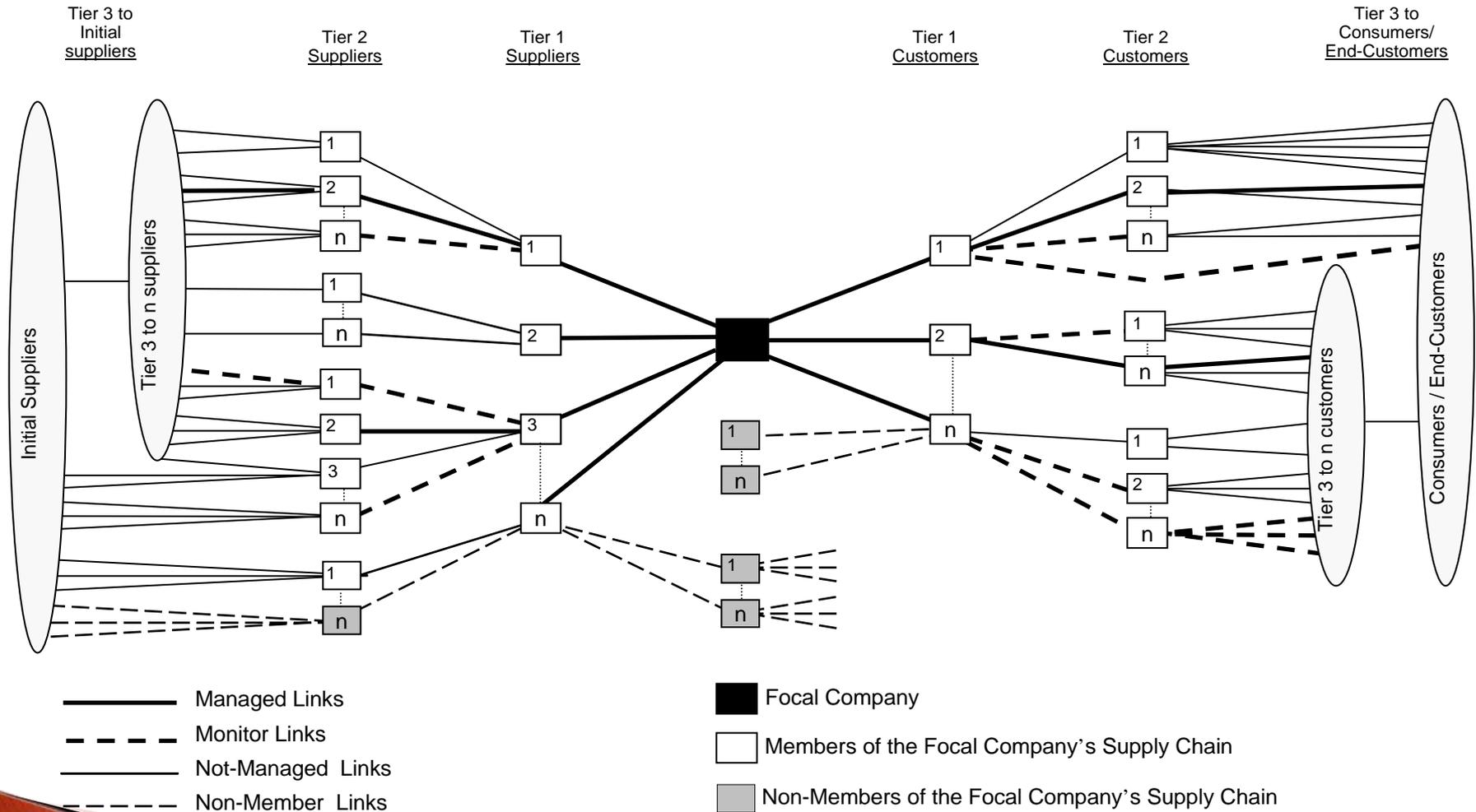
- ▶ Introduction
- ▶ Supply Chain Issues in Asia
 - Supply chain security
 - Supply chain competitiveness
- ▶ The role of LSPs in handling Supply Chain Dynamics
 - An example
 - Designing supply chains
- ▶ Asian SMEs involvement in global and regional supply chain: A Case Study
- ▶ Conclusions

Introduction

- ▶ Shippers and consignees require efficient & effective logistics services in their supply chain.
- ▶ Linkages among countries in Asia need to be strengthened to facilitate trade and integrate supply chains for better access to the global market.
- ▶ Global economic integration relies upon efficient global supply chains but integration can only succeed if there is cooperation among trading nations

- ▶ Supply chain management is an integrative approach for planning and controlling the material flow from suppliers to end-users.
- ▶ The goal of supply chain management is to meet customer service objectives while simultaneously minimising transport, inventory, and other associated costs.
- ▶ The integration of supply chains in Asia can provide a foundation for further economic cooperation and development.

Supply Chain



- ▶ Supply chain security can be perceived as inconsistent with the objective of facilitating international trade
- ▶ All security conditions must be met and guaranteed in order for goods to move unhindered within supply chains.
- ▶ Supply chains are structured by an integration of services and transshipment functions to distribution functions at hub centres. The security of these hub centres as nodal links in the supply chain is of critical importance.

- ▶ Security is now considered one of the necessary pre-conditions for a high performance supply chain that is able to guarantee high economic performances.
- ▶ Supply chain security is leading to an increase in logistics costs.
- ▶ Supply chain security issues, if not dealt with properly can also become the main cause of delay and uncertainties.

Players in the Security Supply Chain

The Governments	Customs have the duty to protect the national economy and society instead of merely focusing on goods control at the border.
The traders	Reliable, secure and efficient supply chain will contribute to global trade expansion.
The ports	Security will represent a critical variable in terms of competitiveness.
The service providers	Key player in terms of security as they move goods and information.
The insurance providers	Increase security = less insurance premium.

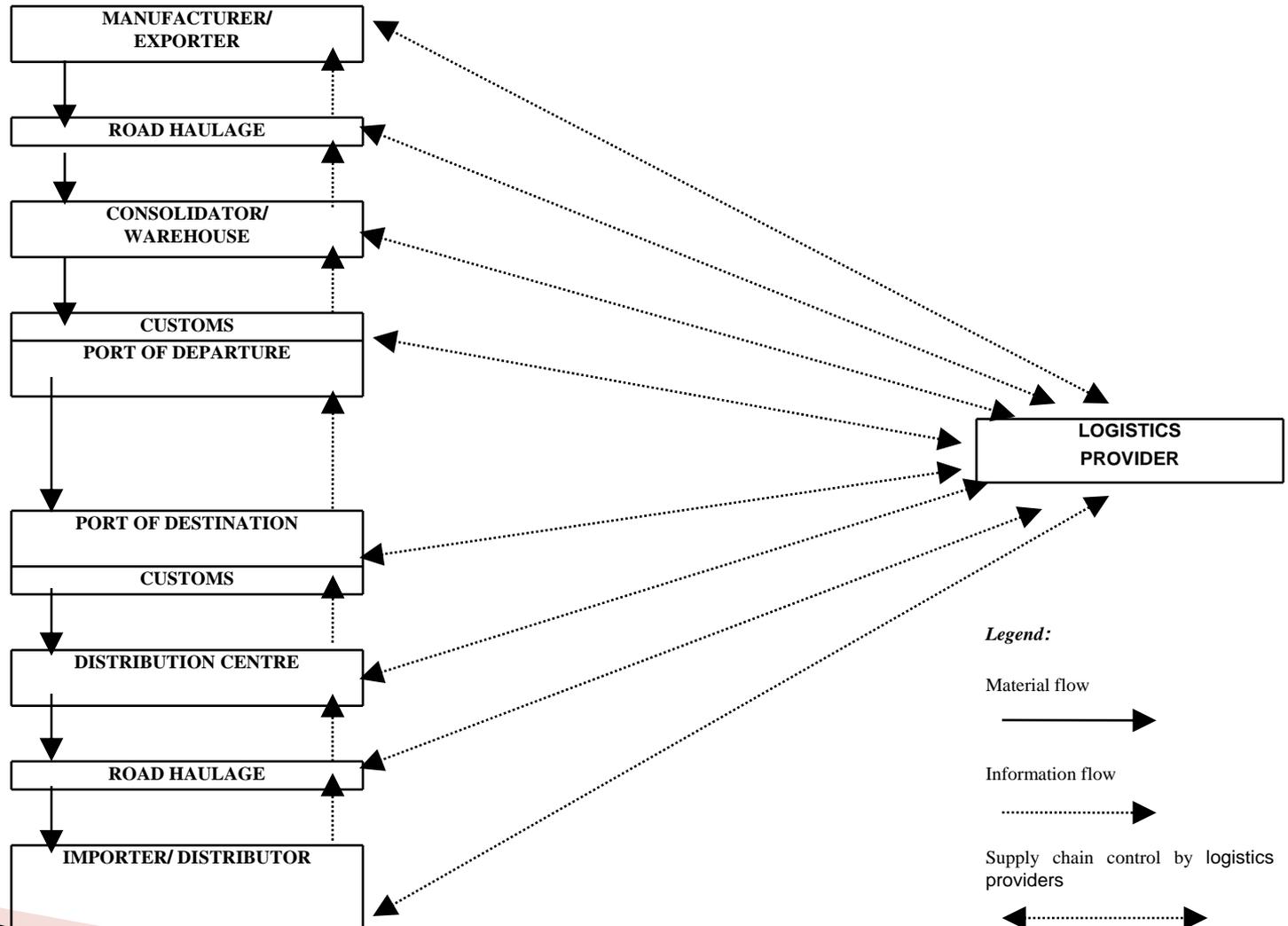
- ▶ The competitiveness of internationally traded products is greatly influenced by various factors, which build up the overall logistics cost within supply chains. Key factors are:
 - The cost associated with the physical transfer of the goods:
 - Transit Time.
 - Safety of Goods
 - Uncertainties
 - Security measures

- ▶ The relationships between traders, services providers and governments must be clearly identified for proper supply chain coordination to be established.
- ▶ The development of Asian supply chains will also demand the need for properly regulated logistics providers.

The Role of Logistics Providers in Handling Supply Chain Dynamics

- ▶ Due to the dynamic nature of the supply chain, amplifications and fluctuations occur, from suppliers all the way down the chain.
- ▶ A robust control system that is flexible enough to counteract any disturbances along the supply chain is needed.
- ▶ The selection of the right logistics service provider (LSP) is critical to supply chain competitiveness?

Role of Logistics Providers in a Supply Chain



Logistics providers' role in a regional supply chain: An example

- ▶ The client is only interested in having the goods delivered as per the agreed upon service levels.
- ▶ It is the duty of the logistics providers to find the optimal solutions that balances client's cost and time requirements.
- ▶ A contextual scanning is needed in order to find the most suitable option for clients' supply chains
 - Example of Thai–Vietnam SC routeing alternatives

Supply chain routing alternatives between Thailand and Vietnam



Designing supply chains: the role of logistics providers

- ▶ In Asia, supply chain control processes including production scheduling, shipment of product and inventory maintenance are frequently de-centralised and remote from each other.
- ▶ Slow feedback from the market place causes scheduled production to over or under manufacture in relation to the actual demand.
- ▶ LSPs can design and develop effective supply chains by integrating multiple service suppliers into a seamless distribution system.

Designing supply chains: the role of logistics providers

- ▶ Supply chain management practices have been widely implemented between multinational firms operating in Asian country but these practices have not yet reached the small and medium sized local suppliers
- ▶ Supply chain performance for most local firms is weak but with strong potential for improvement, as most business owners do not have a grasp of supply chain issues.
- ▶ SMEs in the region are not in control of their supply chain and are subject to the influence of focal firm which is usually a MNE.

Designing supply chains: the role of logistics providers

- ▶ The LSP cannot be successful on his own; he has to rely not only on his agency network and sub-contractors but also on his clients.
- ▶ The challenge for LSPs in Asia is to:
 - Identify essential transport infrastructure and networks
 - Appraise all logistics options that will allow the LSP to achieve and maintain an active and competitive role in providing logistical services by integrating global supply chains.

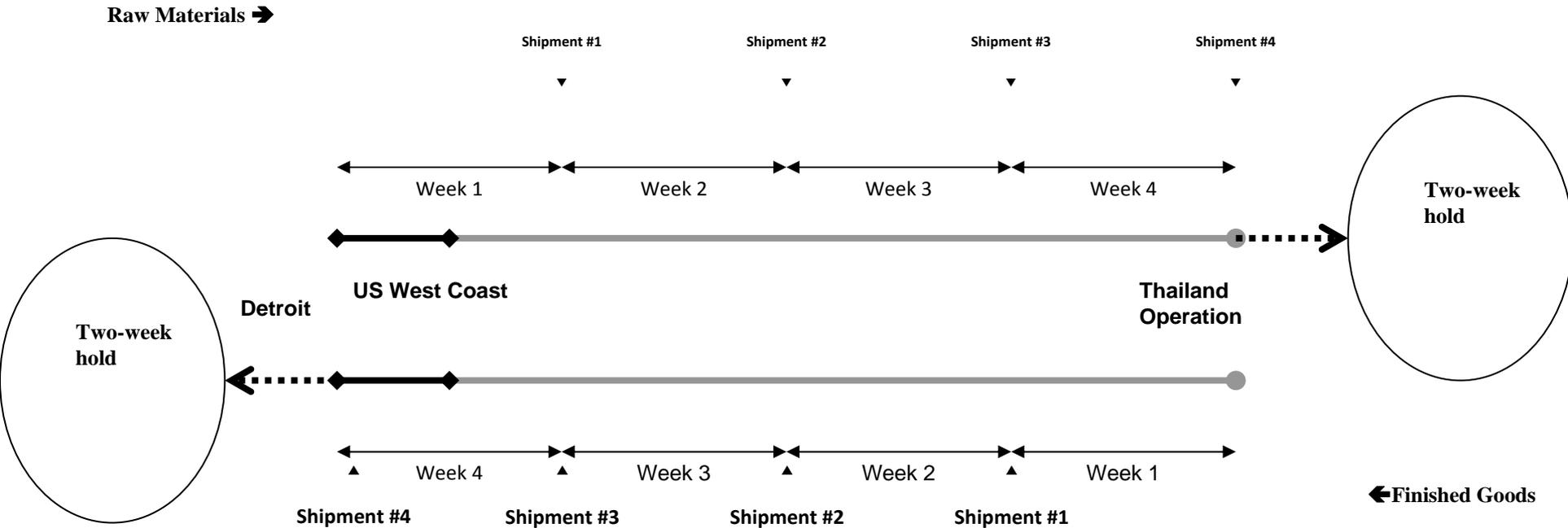
Asian SMEs involvement in global and regional supply chain: A Case Study

Thammasat
Business School



- ▶ An automotive global supply chain sourced raw materials (RM) from approved vendors in the US.
- ▶ The RM was transported over a 28-day transit time to a cut-and-sew operation in the North East of Thailand.
- ▶ Returned completed leather seat covers were then sent back to the US over another 28-day period.
- ▶ Delivery was to a seat assembly plant, which ultimately fed into a just-in-time (JIT) auto assembly plant in Detroit, USA.

Pipeline of weekly shipments between Thailand and the US



Source: Adapted from Rubesch & Banomyong (2005)

Comparison of cost components for one leather seat cover

Cost per seat cover, complete set (US\$)	Mexico	Thailand
Labour	88	15
Leather	199	185
Other materials	67	67
Packaging	2	6
Outbound logistics	4	21
Inbound logistics	2	8
Cost of inventory	-	3
Obsolescence allowance	-	9
Total Costs	362	314

Asian SMEs involvement in global and regional supply chain: A Case Study

Thammasat
Business School



- ▶ The case study presented here illustrates a deliberate supply chain competitive strategy that involved:
 - Selecting an eight-week transit time over a one-week transit time
 - Increased safety stock of four weeks, in order to utilise a more geographically distant supplier (i.e. in Thailand instead of Mexico for the American firm)
 - Offering better quality and better yield at lower cost.

Conclusions

- ▶ Supply chains are managed by focal member firm and their LSPs.
- ▶ Difficult for Asian SMEs to integrate into global supply chains.
- ▶ Cost is important but not the only factor...
 - Time
 - Reliability
 - Quality
 - Security
- ▶ Key support role can be played by LSPs but an understanding of supply chain requirements are needed.

ADDRESSING REVIEWER COMMENTS

BAD REVIEWS ON YOUR PAPER? FOLLOW THESE GUIDELINES AND YOU MAY YET GET IT PAST THE EDITOR:

Reviewer comment:

"The method/device/paradigm the authors propose is clearly wrong."

How NOT to respond:

✗ "Yes, we know. We thought we could still get a paper out of it. Sorry."

Correct response:

✓ "The reviewer raises an interesting concern. However, as the focus of this work is exploratory and not performance-based, validation was not found to be of critical importance to the contribution of the paper."

Reviewer comment:

"The authors fail to reference the work of Smith et al, who solved the same problem 20 years ago."

How NOT to respond:

✗ "Huh. We didn't think anybody had read that. Actually, their solution is better than ours."

Correct response:

✓ "The reviewer raises an interesting concern. However, our work is based on completely different first principles (we use different variable names), and has a much more attractive graphical user interface."

Reviewer comment:

"This paper is poorly written and scientifically unsound. I do not recommend it for publication."

How NOT to respond:

✗ "You #&@*% reviewer! I know who you are! I'm gonna get you when it's my turn to review!"

Correct response:

✓ "The reviewer raises an interesting concern. However, we feel the reviewer did not fully comprehend the scope of the work, and misjudged the results based on incorrect assumptions."