Barriers to Global Maritime Trade

Business Perspectives on Trade Barriers and Frictions in the Pacific Rim

University of Southern California
Marshall School of Business

Busan, Korea
November 15, 2005
"With the relentless shift of global manufacturing to Asia, particularly China, container volumes will triple by 2020”
-Global Consulting Firm

"An 11 day shutdown of ports of Long Beach and Los Angeles in 2002 led to an estimated loss of US$15.6 Billion”
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“We had to wait 9 days for berths to open up at a West coast port. This delay and other lost voyages cost us US$ 27 million last year”
-Global Shipping Company

Trade volume increasing faster than system capacity

Extremely high transaction costs

Ripple effect through system
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Ripple effect through system
**Project objectives**

APEC establishes...

Bogor Goals

ABAC provides...

Business Perspective

USC researches...

Barriers to shipping and trade

Best practices to facilitate flow of goods

How new technology can be leveraged

How security concerns impact the flow of goods
Key messages for APEC

Conflict of interests and unique underlying factors within an economy cause barriers prevent companies from progress towards Bogor Goals.
Research scope & approach

78 interviews
CEOs
Managers
Academics
Attorneys
Consultants
Entrepreneurs

Korea

Mexico
Peru
Japan
Singapore
China
USA

Logistics
Shipping
Port/Cust
Truck/Rail

Importers/Exporters
What We Learned
Qualitative Research
Businesses had different concerns

**IMPORTERS & EXPORTERS**
- 24-hr rule causes issues in logistics
- Concern about sharing sensitive data

**SHIPPING COMPANIES**
- 24-hr rule helps Shippers plan
- Concern about smart containers

**FREIGHT FORWARDERS**
- Difficult to share information
- Few information standards

**PORTS & CUSTOMS**
- Capacity is a key issue
- Need education across economies

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**Objectives**

**Research Approach**

**What We Learned**

**Trade Barriers**

**Proposed Solutions**

**Illustrative Example**

**Summary**

**Questions**
Businesses had different concerns

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**PORTS & CUSTOMS**
- Capacity is a key issue
- Need education across economies
Economies shared some concerns

“Our company contracts with about 10 different carriers in Singapore… lack of common software becomes problematic and increases costs.”

Supply Chain Manager
Multinational, Singapore

“Our company is trying to compete globally but ...
... There are no guiding standards and lots of differences in the existing systems”

Major Exporter, Mexico
Notable findings

- Destination is bottleneck
  - Expansions are at origin and en route

- Technology advances facilitate information flow
  - Lack of communication and standards; digital divide widens

- Security driven by USA; Supported by others
  - New measures do not tackle theft/ contraband
Trade Barriers
Analysis of Findings
Trade is complex on a global & local level

Multi-directional flow of goods and information between constituents creates a highly integrated system

- Truckers
- Retailers
- Ports
- Railways
- Manufacturers
- Customs
- Consolidators
- Shippers
Power dynamics differ across economies

Conflicting Interests

Objectives | Research Approach | What We Learned | Trade Barriers | Proposed Solutions | Illustrative Example | Summary | Questions
Capacity restricted by more than lack of space

Capacity Constraints

- System-wide issue
- Conflicts among six forces
- Ex: USA Port of LB/LA environmental concern

Environmental concerns
Opposition to expand truck routes
Trucks waiting in queue
More pollution

Free Open Trade

Security Barrier
Information Barrier

Objectives Research Approach What We Learned Trade Barriers Proposed Solutions Illustrative Example Summary Questions
Lack of sharing & standards creates info barriers

**Information Barrier**
- Conflicts between two forces
- Lack of information sharing
- Few technology resources
- Few standards

**Objectives**
- Research
- Approach
- What We Learned
- Trade Barriers
- Proposed Solutions
- Illustrative Example
- Summary
- Questions
Customs initiatives can decrease efficiency

**Customs main concerns:**
- Duty collection
- Security
- Smuggling prevention

**Industry main concerns:**
- Lower costs
- Predictability & flexibility
- Efficient flow of goods

**Need for Information Sharing & Compliance with Inspections**

**Information Barriers result from:**
- Lack of training
- Changing regulations
- Different standards within same country
- Inflexible processes
- Costs and unpredictable delays

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**Objectives**
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Complexity in regulations creates security barriers

- Regulations
- Lack of education
- Different level of security concerns and regulations in different economies

Security Barrier

Free Open Trade

Capacity Constraints

Information Barrier

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Summary
Questions
Technologically advanced economies
• May lose some of their efficiency advantage (Japan)

AS OPPOSED TO...

Labor rich economies
• Can more easily absorb the added cost (China)

Shipping Companies
• Some shippers increased efficiency

AS OPPOSED TO...

Export Companies
• A large Japanese exporter lost ten years of progress
Three main barriers prevent free open trade

Capacity Constraints
- System-wide issue
- Conflicts among six forces

Information Barrier
- Conflicts between two forces
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- Few technology resources
- Few standards

Security Barrier
- Regulations
- Lack of education
- Different level of security concerns and regulations in different economies
Precision gained from separate analysis

Conflicting Interests

Government

Natural Limitation

Industry

Enviromentalist

Community

Labor Union

Objectives
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Summary
Questions
Proposed Solutions and Best Practices
Solutions to capacity barriers

Capacity Constraints

- Common goal negotiation
- Advanced equipment
- System-wide solution

Information Barrier

Free Open Trade

Security Barrier
Collaboration helps overcome capacity constraints

**Advanced Equipment**
- Multi-container hoist systems
- Gantry Cranes with longer reaches

**Common Goal Negotiation**
Off Dock Terminals
System wide solution

- Increase visibility
- Better planning
- Improve efficiency
Solutions to information barriers

Capacity Constraints

Information Barrier
- Information technology
- Standards
- Information sharing

Free Open Trade

Security Barrier

Objectives Research Approach What We Learned Trade Barriers Proposed Solutions Illustrative Example Summary Questions
Supporting common standards

Confusion costs money

Standards

Save money

• Cannot compare
• Enables false documents
• Inefficient transfer of info

Standards

• Easier to compare
• More quality
• Increased efficiency

Objectives Research Approach What We Learned Trade Barriers Proposed Solutions Illustrative Example Summary Questions
Promote information sharing

- Share Customs Info
  - Increases Efficiency
- Communicate Errors
  - Improves Processes
- Leverage Tiered System
  - Creates Incentives
- Communicate Priorities
  - Reduces Costs
Solutions to barriers

Capacity Constraints

Information Barrier

Free Open Trade

Security Barrier

- Technology • Standard • Coordination • Education
Overcoming security barriers

Container

- Smart containers
- Electronic Seals
- RFID

Transportation Route

- C-TPAT
- CSI
- WCO Framework of Standards
- RFID
- X-ray/ Gamma Gates and Portals
Illustrative Example
“Security checks add about 1 week lead time (3 weeks worst case) and sometimes force the exporting company to sell merchandise at a substantial discount to the retailer”

Chinese Exporter
Reducing port inspections as part of a wider effort

A systemic approach to reduce intrusive inspections and resulting delays.
Lack of resources to inspect contributes to delays

“Customs will randomly check about 5% to 10% of containers. But … there are few officers from US Customs. As a result the checks waste a lot of time.”

US Importer
“Information sharing across customs for background checks would help better target risky containers for inspections.”

US Security Specialist
"We must educate our clients by regularly distributing C-TPAT information, circulars and creating awareness about the 24 hr rule".

Freight Forwarder
Non-intrusive devices can reduce inspections

- Shipping companies in Singapore suggested setting up radiation portals
- Shipping companies in China suggested having an X-ray gate
Ports should not be the only point of inspection

- Supervised consolidation of cargo at Singapore
- Japan’s informal preferential clearance policy
Summary
Conflict of interest leads to barriers

**Barriers**
- Capacity constraints
- Information barriers
- Security barriers

**Solutions**
- Optimize & increase system capacity
- Increased integration/standardization of information resources
- Technology solutions
Alignment of interests will increase trade facilitation

- Decrease in transaction costs & friction
- Transparency

Secure Business Environment

Free Open Trade

Align incentives to break down barriers

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APEC needs to champion change

Responsibility

Coordinate interests

Support system capacity building

Promote education

Action

Align incentives, Establish priorities

Find ways to fund expansions

Support WTO/ WCO