

# Young Researchers Seminar 2009

Torino, Italy, 3 to 5 June 2009

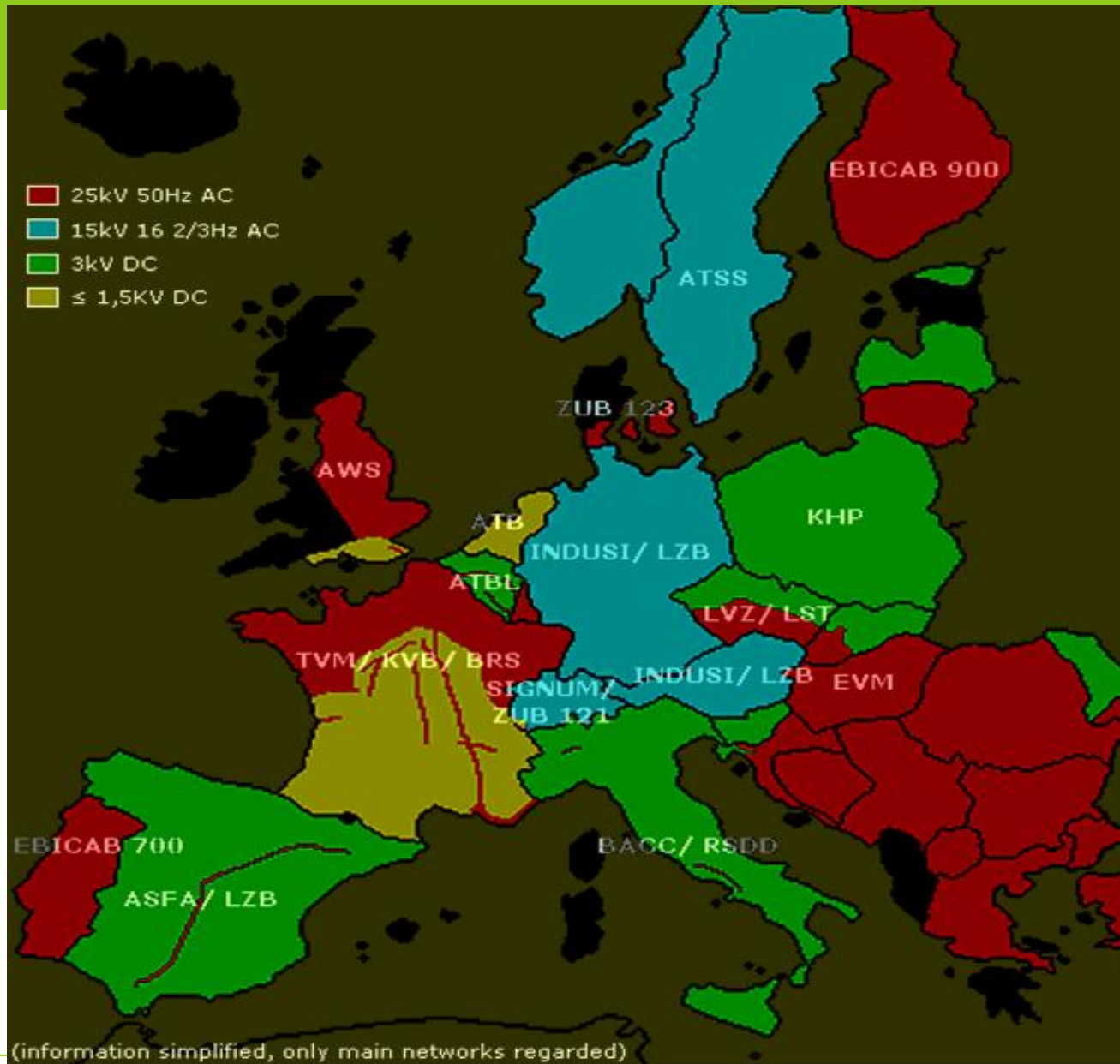
## Internationalisation of Rail Freight Service A Theoretical Assessment

Yu Bai



# presentation summary

- Background
- Research purpose
- Theoretical approaches
- Case study method
- Communication of results



## Internationalisation of Rail Freight Service Yu Bai



## International rail freight service provision

### Two alternative modes

	Carriers providing traction	Revenue/safety responsibility	Infrastructure paid by	Responsible carriers to clients
<b>Successive carriage mode</b>	Transfer to accepting railways Upon handover	Transfer to accepting railways Upon handover	Transfer to accepting railways Upon handover	Transfer to accepting railways Upon handover
<b>Single carrier mode</b>	Railways of origin	Railways of origin	Railways of origin	Railways of origin

# Research purpose

Successive carriage mode dominate freight service provision, then

*A theoretical explanation for rail operators' operating mode decision?*

# Transaction cost theory

- Behavioural assumptions: opportunism and bounded rationality
- Governance structure (market, hierarchy)
- Transactional characteristics: asset specificity and uncertainty
- Transactional characteristics and optimal governance structure

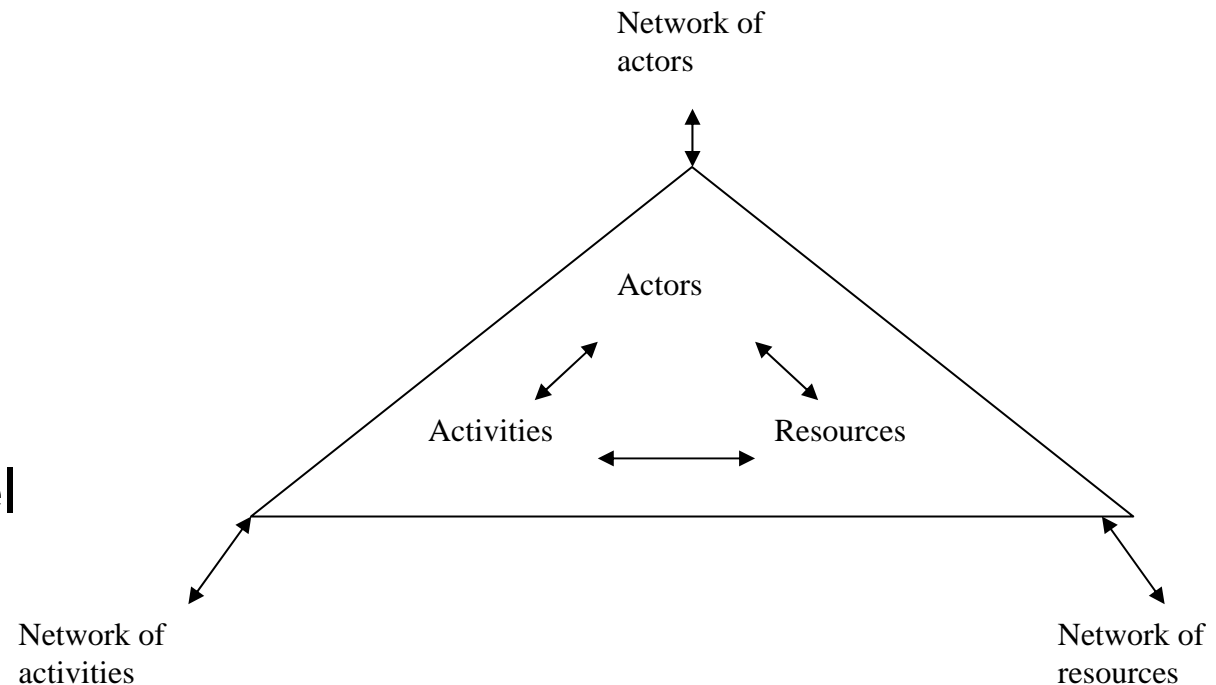
# Transaction cost measures

- Effort
- Monitor
- Problem
- advantage

(Source. Grover et al, 2003)

# Industrial network approach

- Governance mechanism: coordination between independent organizations
- Variables of Industrial network model
- Effects of actions in network context



# Case study

- Focal operator: operator A, privately owned
- Partner operator: operator B of adjacent country, national railways
- Data collection: exploratory questionnaire followed by semi-structured interview and site visit
- Informants: senior managers and employees who directly participate in executing cross-border freight transport

# Main interview topics

- Perceived pros and cons of operating mode choices
- Assessment of the partnership
- Envisioned relationship development (roles, attitude and approaches)

# Measurement 1: TC partnership

Effort	1. Pre-selection of potential partners, and defining the range of issues of the collaboration and individual responsibilities not difficult. 2. The short trial cooperation period on limited lines and limited number of trains was positive
Monitor	1. Agree upon the international agreements to abide by in addition to their bi-lateral agreement. 2. Conduct sampling wagon/load inspection
Problem	No dispute has occurred
Advantage	1. Mutual interest in collaboration with low risk of opportunistic behaviour. 2. Previous collaboration of operator B with other operators assessed positive.

## Measurement 2:gains of market entry

Efficiency gains	1. Modestly improved productivity of freight wagon fleet due to marginal increasing of hauling distance. 2. Handover procedures cut down being limited, since locomotive exchange remains. 3. Transit time saving may be seriously constraint/curbed by problems of getting preferable time slots and access service facilities.
Revenue gains	Opportunity of expanding geographical coverage of business but profit is less than domestic service provision

# Measurement 3: risks of market entry

<b>Asset specificity</b>	1. Locomotives operable on the network in question and personnel training costly. 2. License and safety certificate application costly and onerous.
<b>Uncertainty</b>	1. Legal and institutional conditions of the neighbouring rail market hard to manage. 2. High behavioural uncertainty of operator B (and its infrastructure manager), when its dominant position is challenged.

# Measurement 4: perceived value partnership

Direct effects in the dyad	1. Utilize operator B's knowledge and capability for service provision. 2. Duplication of activities and redundancy of resources reduced by integrating activities and process innovation.
Effects on network relationships	1. Increased interdependency and commitment to a close relationship. 2. Eschewing hostile measures by operator B and damaging effects. 3. Operator B as a conduit to access resources controlled by its infrastructure manager.

# Operating mode decision matrix

	<b>Single carrier mode</b>	<b>Successive carriage mode</b>
Cost element	Transaction cost associated with partnership: low	Risks associated with market entry: high
Value element	Perceived gains of market entry: low	Perceived value associated with partnership: high

Thank you for your attention!

*Comments? Questions?*

For details, please contact:  
yba@toi.no