A Conceptual Model for Oil Port Sustainability Policy Research: A Case Study of Chinese Ports

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Agenda

- Background
- Research Question, Objectives, and Aim
- Approach: A systematic Literature Review and Policy Reading
- Findings (Conceptual Model)
- Research Methodologies to conduct Empirical Study
- Conclusions
Background I. Scope and Focus

- c.a. 90% of world trade is carried by the international shipping
- Great responsibilities
- Focusing on ships and trading
- linkage between sea and land transportation may cause environmental impacts to its surrounding area (inside and outside)
- Most focused port type
- Enormous trading quantity and profit
- Less researched
- More sensible
Research Aim:
To develop a conceptual model for the Chinese oil port sustainability policy framework

Research Question:
What are the potential measurement groups for the oil port sustainability policy framework?

Research Objectives:
1. To define the definition of sustainability in terms of port management
2. To find out the relevant international, national and local policy frameworks
3. To identify potential indicator groups for Chinese oil port sustainability policy framework
Approach: Systematic Literature Review and Policy Reading I.

- Systematic Literature Review and Policy Reading as a part of the Research

- How
  - Three Data Bases of: Google Scholar, China Stateoceanic Administration, Chinaports
  - Key-Word Coding
  - Exclusion Criteria
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<th>Author</th>
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<td>Handbook</td>
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<td>D, Andersson confirmed and J, Smith, in charge</td>
<td>Operating Regulations for the Oil Harbour (Port of Gothenburg)</td>
<td>Port of Gothenburg</td>
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Approach: Systematic Literature Review and Policy Reading II.

- Detailed Analysis of the literature on sustainability with the following research questions:
  
  - For what purpose has the term ‘sustainability’ been used in the context of port management?
  
  - What are the main relevant international, national, and local policies to port sustainability management?

  - What are the main sustainability indicators
Approach: Systematic Literature Review and Policy Reading IV.
Approach: Gaps in Existing Literature V.

- Few have covered oil ports
- Only focused on certain environmental or safety issues in oil ports
- No holistic sustainability performance examination
Findings: Conceptual Model

Environment
- Port Activities Specification
- Tankers
- Operation
- Emission Prevention
- Construction Monitoring

Green Port
- Stakeholder Involvement
- Strategies
- Cost Effectiveness
- Competition with other Ports

Social
- Oil Port Sustainability Performance
- HR
- Pollution
- High Skilled Labour
- jump ship; urbanisation of oil ports
- Safety
- Citizen Safety; Port Worker Safety; Seaborn Wildlife Safety; Safety Education and Training; Citizen Living Condition (Living Area)

Economic

Environment
- Ports
- Specification
- Oil Port

High Skilled Labour
- jump ship; urbanisation of oil ports

Hazardous, Noise
- Pollution

Sustainability
- Performance
- Port Activities
- Green Port

Citizen Safety; Port Worker Safety; Seaborn Wildlife Safety; Safety Education and Training; Citizen Living Condition (Living Area)
Research Methodologies to conduct Empirical Study

Qualitative
- Thematic Analysis
- Semi-Structured Interview

Quantitative
- Survey
- Analytic Hierarchy Process (AHP)
- Cluster Analysis (CA)
Conclusion

- Contributions
  - Specific Measures to assess Oil Port Sustainability
  - A holistic Oil Port Sustainability Framework

- Next Step
  - Empirical study via interviews and survey to collect data


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Thank you!