

**Future Research? Does Superior  
Service Performance Provided to  
Shipping Lines Improve the  
Perceived Value of a Port?**

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# The Data

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- Sample of 93 assessments of seven North American ports by *shipping line* representatives collected 2012.
- Overall evaluation of the effectiveness of service delivery on seven point scale
  - a 1 indicated very poor and a 7 indicated excellent performance.
- 17 performance criteria on seven-point scale
  - a 1 indicated very poor and a 7 indicated excellent performance.
- Two cost measures on seven point scales
  - Overall cost
    - a 7 indicated the port is very expensive
  - Reasonableness of the cost
    - a 7 indicated that the costs were very reasonable

# The Value Measures

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## Basic Value

- performance less cost (Woodruff, 1997; Prior, 2013)
  - creates a target variable ranging from -6 (low performance and high cost = low basic value) to +6.

## Value-Added

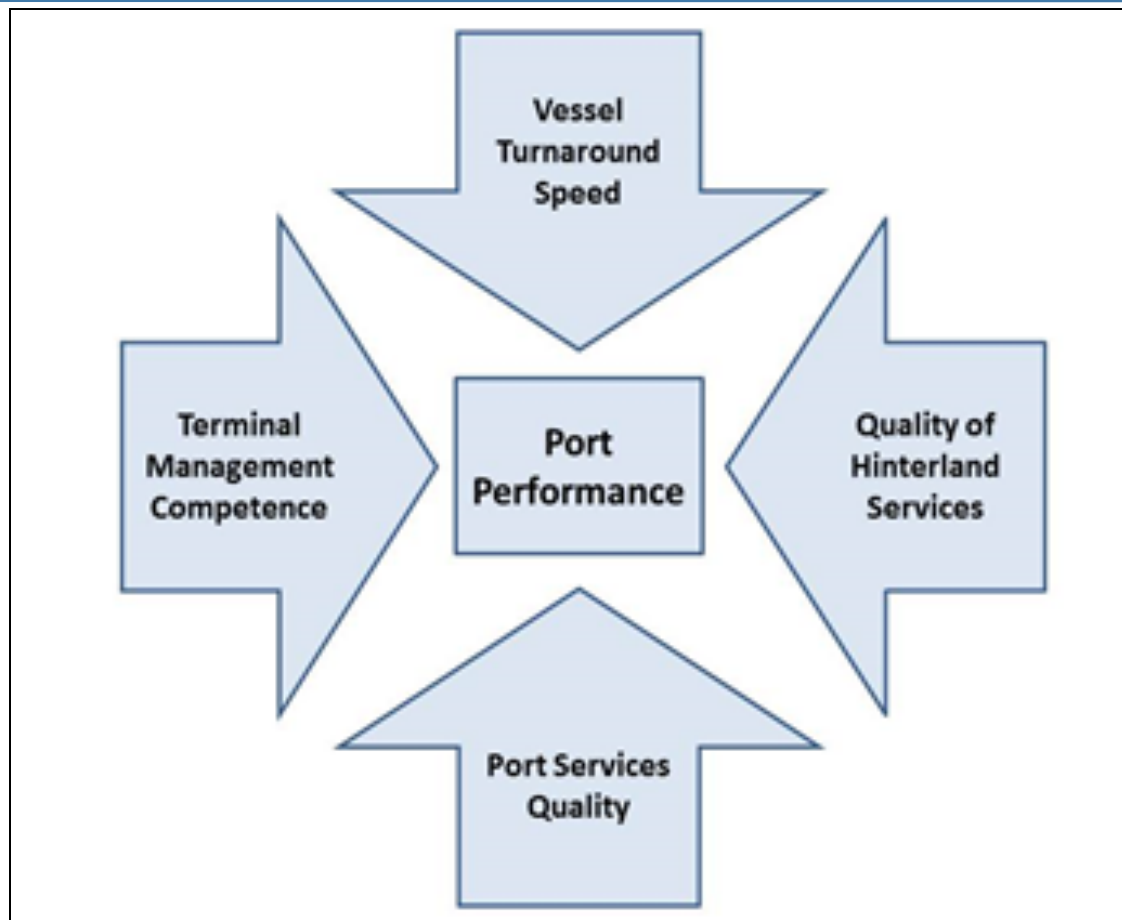
- Reasonableness plus perceived cost
  - Range 2 to 14
  - An expensive port whose cost is seen as reasonable is said to have value-added services

# Summary

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- North America ports vary substantially on all of these measures. - Ports offer different value propositions to shipping lines.
- Ports can offset high prices with superior performance leading to improved basic value and value-added.
- Basic value and value-added have different determinants

# Exploratory PCA of 17 performance criteria resulted in four performance dimensions



- All four are determinants of overall port service performance
- None of them are determinants of perceived cost.

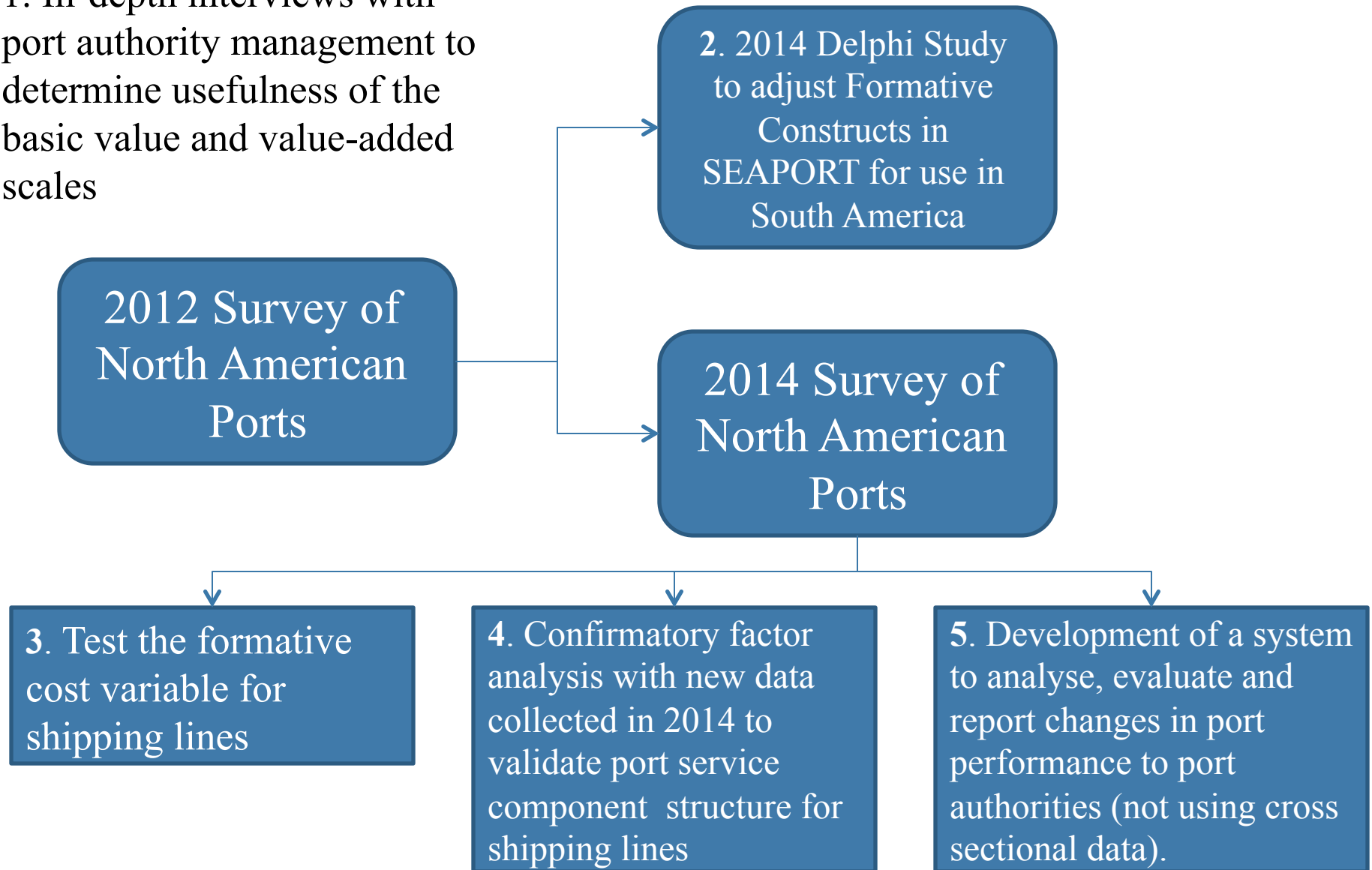
# The Importance of the Service Components for Basic Value and Value-Added

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- **Vessel Turnaround Speed**
  - The key determinant of *basic value*
  - *value-added*.
- **Terminal Management Competence**
  - Is a component of service only
- **Quality of Hinterland Services**
  - *basic value*.
- **Port Services**
  - *basic value*
  - The largest influence on *value-added*.

# Future Research

1. In-depth interviews with port authority management to determine usefulness of the basic value and value-added scales



3. Test the formative cost variable for shipping lines

4. Confirmatory factor analysis with new data collected in 2014 to validate port service component structure for shipping lines

5. Development of a system to analyse, evaluate and report changes in port performance to port authorities (not using cross sectional data).

# Shipping Line Cost Construct

- How do you rate the cost of using the port? (1 = very inexpensive and 7 = very expensive)



	Very Inexpensive							Very Expensive	No Exp
Cost of rail/truck/warehousing	1	2	3	4	5	6	7	<input type="radio"/>	
Cost of port charges	1	2	3	4	5	6	7	<input type="radio"/>	
Cost of terminal charges	1	2	3	4	5	6	7	<input type="radio"/>	
Cost of port services (pilotage, towage, etc.)	1	2	3	4	5	6	7	<input type="radio"/>	
Overall cost of using the port	1	2	3	4	5	6	7	<input type="radio"/>	



**Questions?**  
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Our thanks to:



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