

Marketplace Perspectives

Marine Terminal Operations in the Global Supply Chain – Critical Factors and Requirements

AAPA Marine Terminal Management

October 20, 2008

Baltimore, MD



An Economics and Business Perspective



Countries and Regions

Global Insight provides detailed national and subnational analysis of more than 200 countries around the world.



Industries

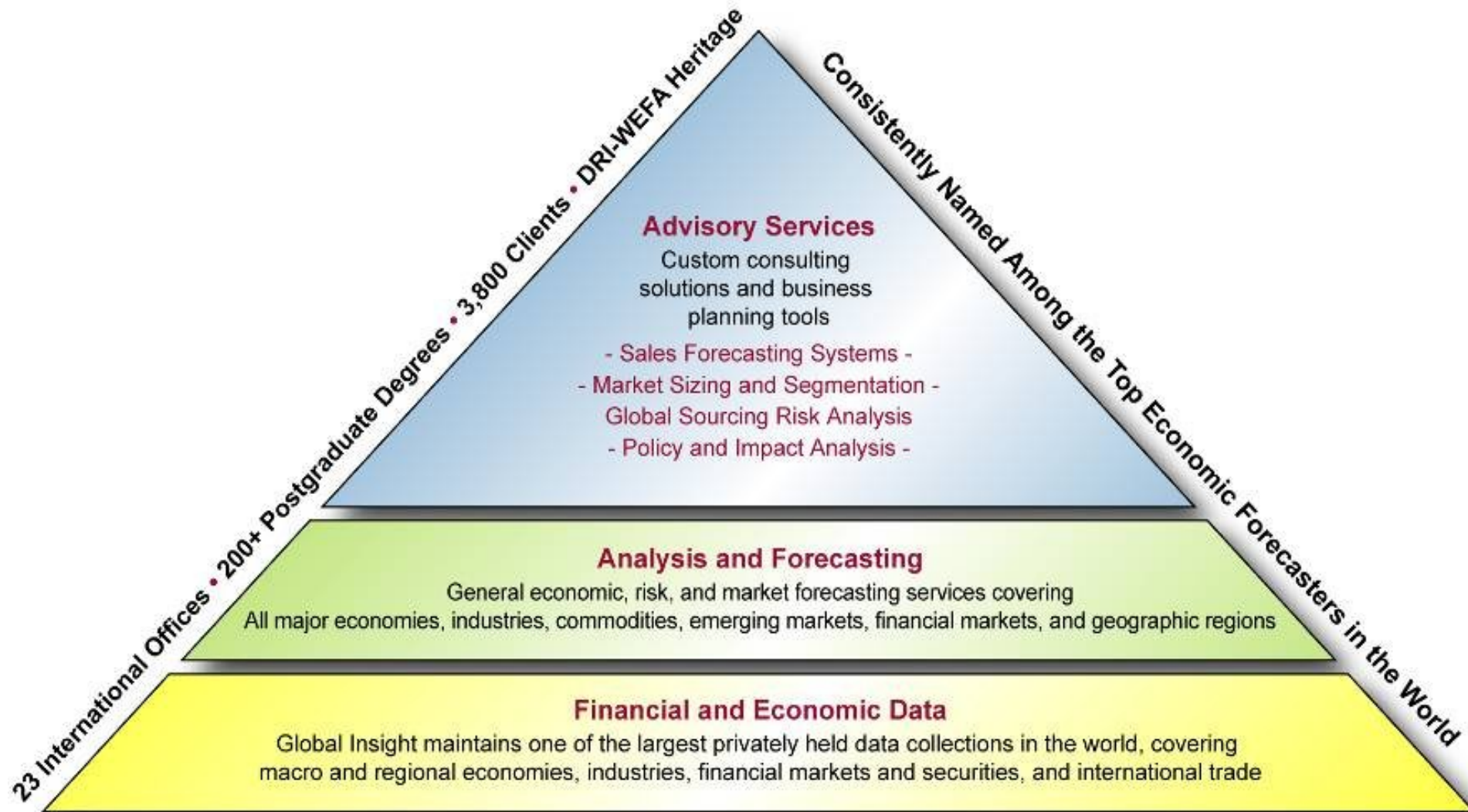
Global Insight provides deep expertise across 70 industries including, retail and consumer markets, energy, tourism, manufacturing, automotive, trade and transportation, steel, and construction.



Concept Coverage

Our standard and custom forecasting models cover the complete range of economic, demographic, financial, income distribution, and socio-economic variables.

Expertise Built Upon a Solid Foundation



Supply Chain Consortium

Supply Chain Consortium Background

- Tompkins Associates is a **global supply chain consulting firm** that manages, facilitates, and maintains the Benchmarking & Best Practices program for the **Supply Chain Consortium**.
- Tompkins has worked with the Consortium **since 2004**.
- The Consortium database consists of **over 5,500 questions, yielding 17,000 data points** in all elements of the international supply chain.
- The driving philosophy of Consortium members is to **identify gaps in company performance and implement initiatives** to improve supply chain practices and processes.
- There are currently **200 Consortium member companies** from retail, manufacturing and distribution/wholesale operations.

Supply Chain Consortium

Supply Chain Consortium Background

1-800-flowers.com

7-Eleven, Inc.

99 Cents Only Stores

Ace Hardware Corporation

ACH Food Companies, Inc.

Advance Auto Parts, Inc.

AJC International, Inc.

Albertson's, Inc.

American Gypsum Company

Andrew Corporation

AnnTaylor Stores Corporation

Aramark Corporation

Army and Air Force Exchange Service

AutoZone, Inc.

Avon Products, Inc.

Barnes & Noble Inc.

Bar-S Foods Company

Bealls Inc.

Beiersdorf, Inc.

Berwick Industries LLC

Best Buy Co., Inc.

Big Lots Inc.

BJ's Wholesale Club, Inc.

Blair Corporation

Borders Group, Inc.

Bozzuto's, Inc.

Brach's Confections, Inc.

Burt's Bees, Inc.

Cabela's, Incorporated

Campbell Soup Company

Canon U.S.A Inc.

Casual Corner Group

CBRL Group, Inc. (Cracker Barrel)

Celestica Inc.

Charming Shoppes, Inc.

Chico's FAS, Inc.

Coty, Inc.

Croscill, Inc.

Dick's Sporting Goods, Inc.

Dillard's, Inc.

Do It Best Corporation

Dollar General Corporation

Driscoll Strawberry Associates, Inc.

Ducati North America, Inc.

Eddie Bauer Fulfillment Services

Electrolux Home Products - North America

Euromarket Designs Inc. (Crate & Barrel)

ExxonMobil Lubricants

Family Dollar Stores, Inc.

Famous Supply Companies

Faurecia Exhaust Systems, Inc.

Fingerhut Direct Marketing, Inc.

Florida's Natural Growers

Food City

Fred's, Inc.

Fresh Brands, Inc.

Galyan's Trading Company, Inc.

Gap Inc.

Giant Eagle, Inc.

H.E. Butt Grocery Company

Hallmark Cards Inc.

Harcourt Trade Publishers

Harris Teeter, Inc.

Harry & David Holdings

Helzberg Diamonds

Henry Modell & Company, Inc.

Herbalife International of America, Inc.

Hewlett-Packard Company

Home Hardware Stores Limited

Home Interiors & Gifts, Inc.

Honeywell International Inc

Hudson's Bay Company

Ingram Micro Inc.

Insight Enterprises, Inc.

J.C. Penney Company, Inc.

Jo-Ann Stores, Inc.

Johnsonville Sausage LLC

Kerry, Inc.

KI

Kimberly-Clark Corporation

Kohl's Corporation

Kraft Foods, Inc.

Kwik Trip Stores

Land's End

Levi Strauss & Co.

Lifetime Brands Inc.

Limited Brands, Inc.

Liz Claiborne, Inc.

Loblaw Companies Limited

Supply Chain Consortium

Supply Chain Consortium Background

Longs Drug Stores Corporation

Mannington Mills Inc.

Marvin's Building Materials & Home Centers

McAfee, Inc.

Meijer, Inc.

Mervyn's

Metro-Richelieu, Inc.

Michaels Stores, Inc.

Miller Brewing Company

Molson Coors Brewing Co.

NAACO Materials Handling Group

Nash Finch Company

Nationwide Transportation

New York & Company, Inc.

Newark InOne

Newegg.com

NEX

Nintendo of America

Nordstrom, Inc.

NYK Inc.

OfficeMax, Inc.

Oldcastle, Inc.

O'Reilly Automotive, Inc.

Orgill, Inc.

Osram Sylvania Products, Inc.

Pamida Holdings Corporation, Inc.

Party City Corporation

Perdue Farms Incorporated

Philips Electronics North America Corp

Polaris Industries, Inc.

Polo Ralph Lauren Corporation

Price Chopper

Publix Super Markets, Inc.

Regis Corporation

Retail Ventures, Inc. (Value City)

Rite Aid Corporation

Ross Stores, Inc.

S.P. Richards Company

Safeway, Inc.

Saks Incorporated

Samsung Electronics America, Inc.

Schnuck Markets Inc.

Shaw Industries, Inc.

Shoe Carnival, Inc.

Shopko Operating Company, LLC

Simon & Schuster, Inc.

Smart & Final, Inc.

Sony Logistics America

Standard Register

Staples, Inc.

Steelcase, Inc.

Stihl Incorporated

Stock Building Supply

Stonyfield Farm, Inc.

Supervalu Inc.

Swagelok Company

Target Corporation

Tech Data Corporation

Tempur-Pedic International Inc.

The Bombay Company, Inc.

The Bon-Ton Stores, Inc.

The Coca-Cola Company

The Forzani Group, Ltd.

The Home Depot, Inc.

The J. M. Smucker Company

The Men's Wearhouse, Inc.

The North West Company, Inc.

The Pep Boys - Manny, Moe & Jack

The Timberland Company

The TJX Companies, Inc.

THQ, Inc.

Too, Inc.

Tootsie Roll Industries, Inc.

Toys 'R' Us, Inc.

Tractor Supply Co.

Trans World Entertainment Corp

Tree of Life, Inc.

TrueValue Company

Tyson Foods, Inc.

Unilever Home & Personal Care USA

United Supermarkets

Vans, Inc.

Von Maur

W.W. Grainger, Inc.

Walgreen Company

West Marine, Inc.

Whirlpool Corporation

Winn-Dixie Stores, Inc.

Wolverine World Wide, Inc.

Supply Chain Consortium

Supply Chain Consortium Background

Supply Chain Planning	Sourcing	Manufacturing	International Transportation	Domestic Transportation	Distribution Center	Sales and Service
Network Design	Supplier Management	Facility Design	Air	Parcel	Layout	Customers
Network Planning	Vendor Collaboration	Quality Systems	Ocean	LTL	Operations	Call Centers
Demand Planning	Order Control	Production Scheduling	Domestic Ports	Truck	Functional Practices	Stores
Sales Forecasting	INCO Terms	Human Resources	Order Control	Fleet	Labor Management	Website Features
Inventory Management		Information Tech	Third Party Services	Intermodal	Outsourced Distribution	
		Product Design	Customs Brokers		Outsourced Pool	
			Domestic Trade Management		Direct to Consumer	
Core Supply Chain Benchmarks						
Key Company Financial Benchmarks						
Technology						
Security						
Environmental / Sustainability						

Decision Points and Selection Criteria

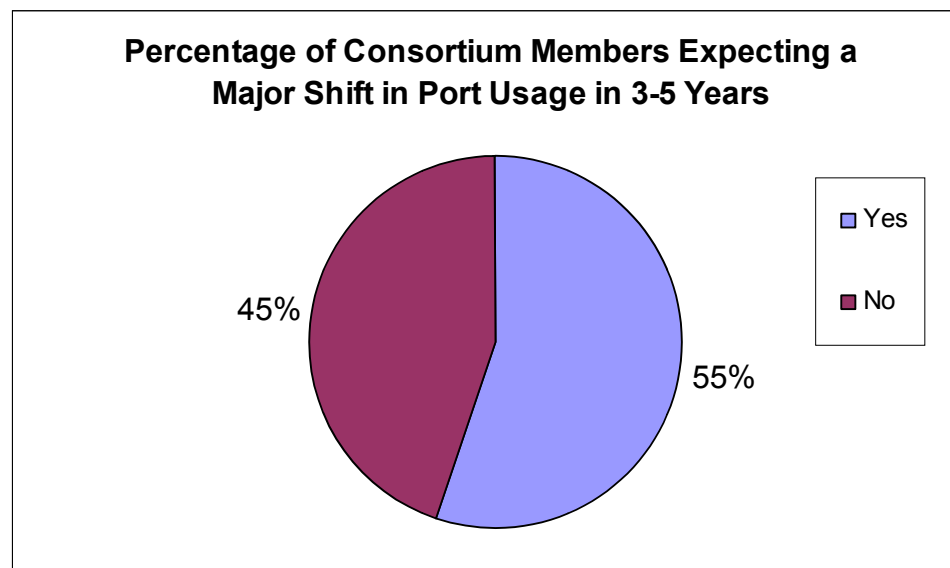
Port Selection – Consortium TEU Container Volumes

Current Consortium Port Ranking		Consortium Port Ranking - 3 Year Forecast	
Ranking Based on TEU Volume	Port	Ranking Based on TEU Volume	Port
1	Long Beach, CA	1	Long Beach, CA
2	Los Angeles, CA	2	Norfolk, VA
3	Seattle, WA	3	Los Angeles, CA
4	Norfolk, VA	4	Seattle, WA
5	Tacoma, WA	5	Tacoma, WA
6	New York, NY	6	New York, NY
7	Houston, TX	7	Wilmington, NC
8	Wilmington, NC	8	Vancouver, BC, Canada
9	Vancouver, BC, Canada	9	Houston, TX
10	Miami, FL	10	Baltimore, MD
11	Baltimore, MD	11	Oakland, CA
12	Charleston, SC	12	Savannah, GA
13	Oakland, CA	13	Halifax, NS, Canada
14	Savannah, GA	14	Miami, FL
15	Halifax, NS, Canada	15	Charleston, SC
16	Canaveral, FL	16	Canaveral, FL
17	Newark, NJ	17	Newark, NJ
18	San Pedro, CA	18	San Pedro, CA
19	Portland, OR	19	Portland, OR

Consortium data port by port varies some from published TEU volumes from sources such as the American Association of Port Authorities, but the trend is clearly toward increased east coast volume in the future. Who will get larger faster?

Decision Points and Selection Criteria

Port Selection – Extent of Consortium Company Port Shifts



East Coast Ports as Beneficiaries

A majority of companies are seeing major shifts in which ports they use. Many east coast ports are forecasted by Consortium companies to see major increases in the next three to five years. These projected increases in regional ports indicates an opportunity for growth in the east

Decision Points and Selection Criteria

Port Selection – Company Strategy Importance (Rating 1 to 5)

Company Strategies to Address North American Port Issues	Average Importance Rating
Moving imports on trans-pacific lanes away from the ports at Los Angeles and Long Beach to other West Coast ports	3.5
Moving imports from the Indian sub-continent and Southeast Asia to East Coast and Gulf ports through the Suez canal.	3.0
Applying pressure on our carriers, terminal operators and cartage agents to implement or accept more efficient operating practices at ports (e.g. expanded hours of operation)	2.9
Moving imports on trans-pacific lanes to East Coast and Gulf ports through the Panama canal	2.8
Working with vendors, carriers, consolidators and ports in countries exporting to North America, so that sailings can be used that arrive in ports on non-peak days	2.3
Working with port authorities in an active role to implement more efficient operations	2.2
Lobbying local, state and federal agencies for funding for port, rail and road infrastructure improvements	2.1
Moving product, raw material and component sources back to North America or re-evaluating plans to move current sources from North America to Asia	1.8
Moving product, raw material and component sources to Eastern Europe, Central America or other regions outside of Asia	1.8

Decision Points and Selection Criteria

Port Selection – Congestion Causing Port Shifts

Primary Causes for North American Ports Congestion	Average Importance Rating
Lack of rail equipment and capacity serving ports	3.8
Vessel arrivals concentrated on certain days of the week (e.g. Thursdays, Fridays and Saturdays)	3.7
Inefficient port operating practices that limit trucking productivity and create driver shortages	3.6
Limited hours of operation for gates, terminals and local truck operations	3.4
Lack of adequate port and terminal operations metrics to pinpoint problems and identify where available capacity might exist.	3.3
Road congestion entering and leaving ports	3.2

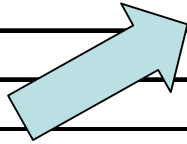
In order for Port operations to be viewed positively and influence companies selection decisions improvements to reduce congestion are needed. Companies see increased congestion resulting from a lack of transportation infrastructure (rail and road) and port operation inefficiencies and practices that create bottlenecks.

"Is America a weakling, to shrink from the work of the great world powers? No! The young giant of the West stands on a continent and clasps the crest of an ocean in either hand. Our nation, glorious in youth and strength, looks into the future with eager eyes and rejoices as a strong man to run a race."

Decision Points and Selection Criteria

Port Selection – Concern for Disruptions Influencing Port Decisions

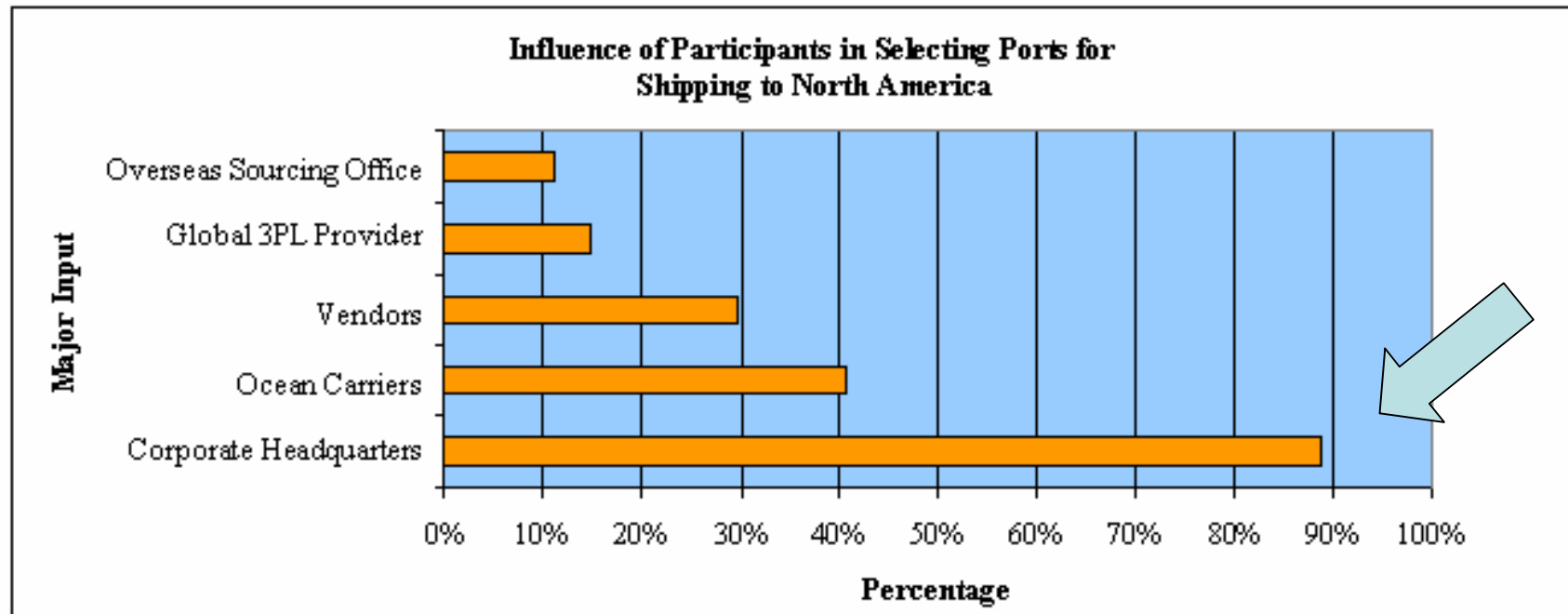
Strategies to Minimize Supply Chain Disruptions	Importance Rating (1 to 5)
Diversifying the Ocean Carrier Base	3.7
Diversifying the Number and Location of Ports	3.6
Developing Documented Contingency Plans.	3.5
Moving More Inbound Ocean Shipments Through East Coast Ports	3.4
Placing Orders Earlier	3.3
Using Air Freight	3.3



Concern over supply chain disruptions are a major factor impact all decisions made with respect to ports, transportation and distribution operations. Companies are ensuring they have a diverse ocean carrier base, have the flexibility to shift ports when disruptions occur, have well thought out contingency plans and use east coast ports that have not had recent disruptions.

Decision Points and Selection Criteria

Port Selection – Port Selection Decision Makers



Decisions regarding port selection are often driven by a companies corporate Headquarters, but with some companies can also be left up to the discretion of ocean carriers, vendors and Global 3PL's. All of these groups play a role in port selection decisions.

Decision Points and Selection Criteria

Port Selection – Port Investigation Techniques



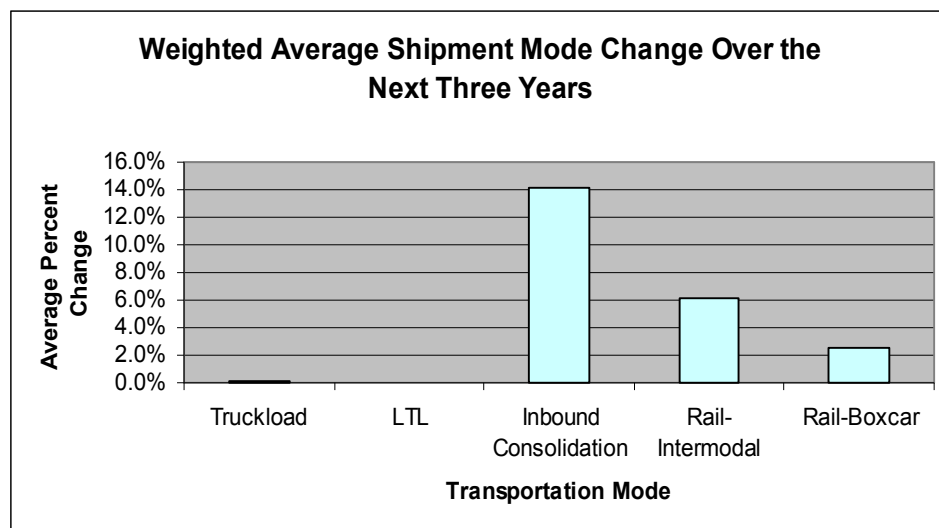
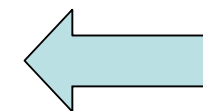
Techniques To Investigate North American Ports	Always	Usually	Occasionally	Rarely/Never
Visit the port and terminal when evaluating new ports	26%	26%	18%	30%
Visit the port and terminal at operations start up	22%	26%	22%	30%
Visit the port and terminal annually	7%	33%	15%	45%
Visit the port and terminal when there are issues	4%	44%	26%	26%
Talk with port authorities	11%	22%	41%	26%
Talk to local terminal operators	15%	26%	18%	41%
Talk with local cartage agents	30%	11%	27%	31%

Investigations into which ports to use don't always entail a site visit and talking with port authorities and terminal operators. Surprisingly many companies make these important decisions without first-hand knowledge of port facilities. This is a clear indicator of the need to make services and capabilities known through web sites, publications and other means.

Decision Points and Selection Criteria

Transportation and Modal Choices

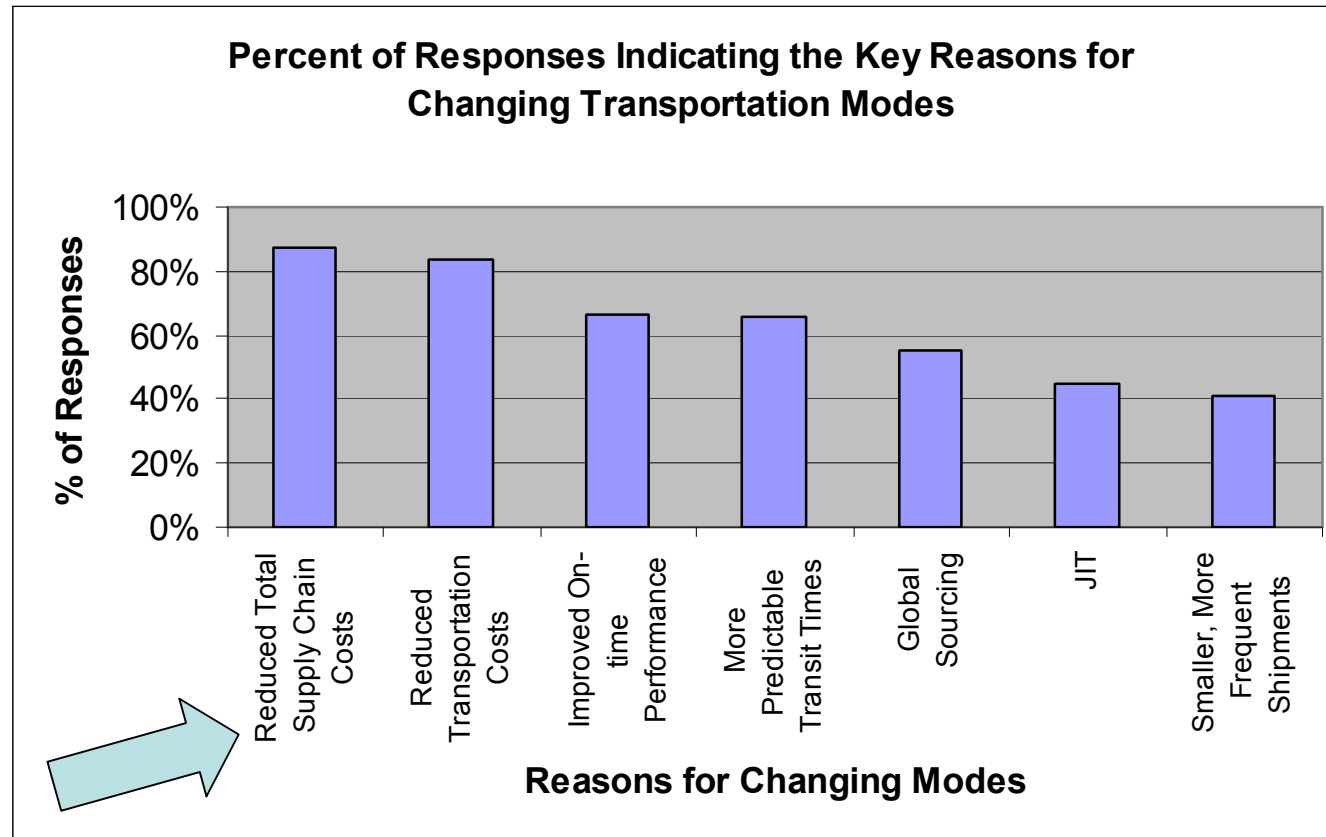
Transportation Mode Selection Changes Forecast Next 3 Years - Percent of Responses				
	Decreasing	Increasing	No Change	Weighted Average % Shipment Change
Truckload	28.6%	39.3%	32.1%	0.2%
LTL	31.0%	37.9%	31.0%	0.0%
Inbound Consolidation	7.2%	59.4%	33.4%	14.1%
Rail-Intermodal	7.4%	59.1%	33.3%	6.1%
Rail-Boxcar	7.7%	26.9%	65.4%	2.6%



Consortium members predict major changes to the transportation modes they plan to use in three years. Also more companies are predicting larger increasing shifts in inbound consolidation and intermodal than other any other modes. As a percent of shipments companies are seeing an average of a 14% increase in inbound consolidation.

Decision Points and Selection Criteria

Transportation and Modal Choices

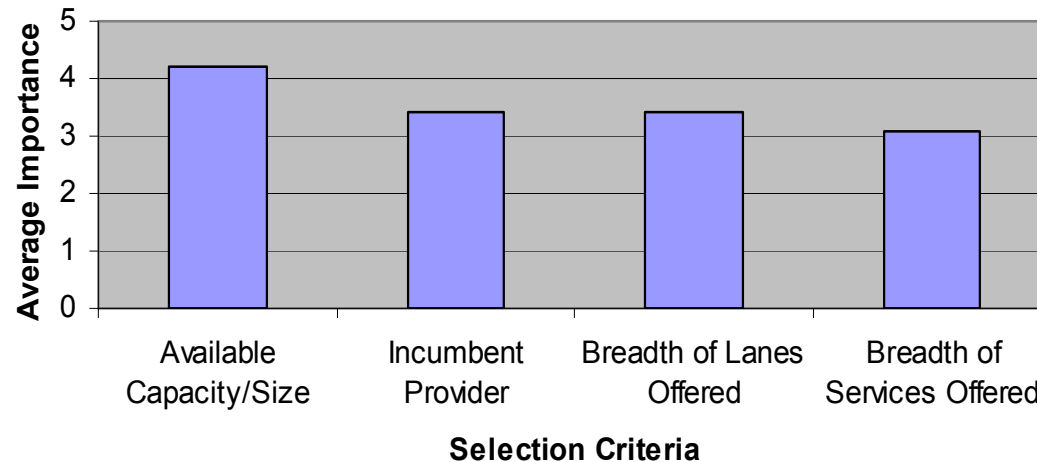


Companies are primarily looking to change transportation modes to reduce costs and secondarily to improve service delivery to customers. Companies are very focused on cost reductions.

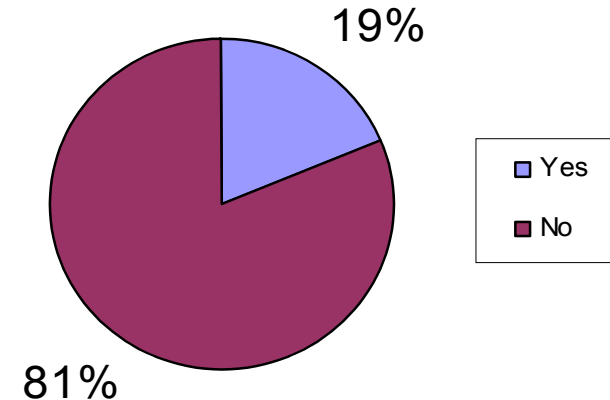
Decision Points and Selection Criteria

Transportation and Modal Choices – TL and LTL

How Important are the Following Criteria in Selecting Truck Common Carriers?



Contingency Plans and Carrier Commitments for Major Disruptions



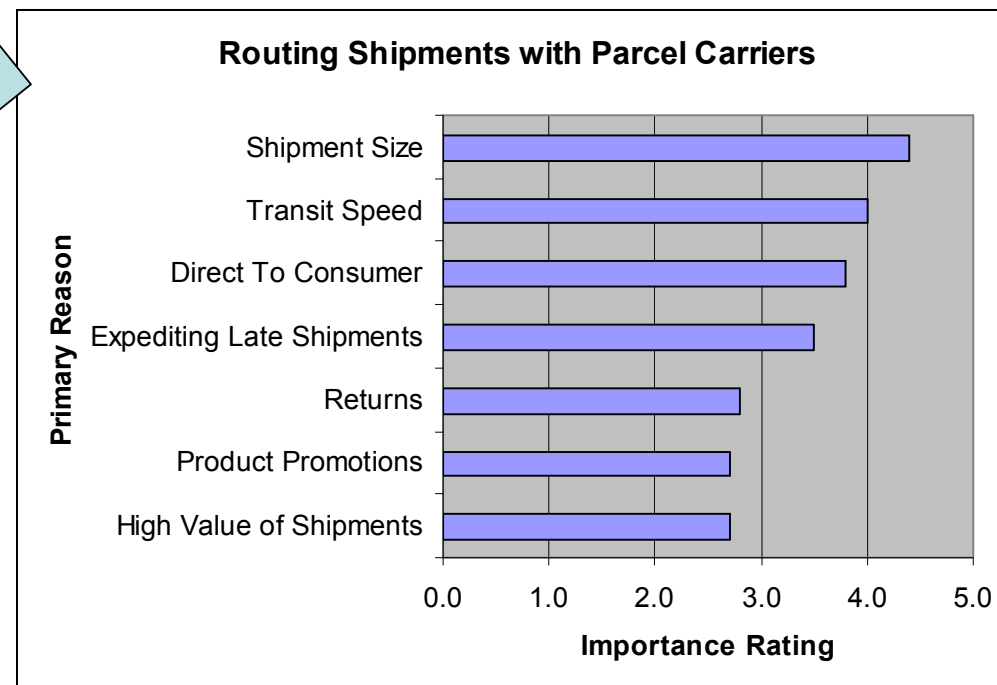
There are many factors that companies use to select truckload and LTL carriers but the above figure identifies the importance ratings. It is also very important to minimize disruptions caused by carriers and there are a growing number of companies who develop detailed contingency plans.

Decision Points and Selection Criteria

Transportation and Modal Choices - Parcel

Parcel Mode Usage	% of Total Parcel
Inbound Shipments	15%
Outbound Orders	71%
Internal Shipments	3%
Returns	11%

65% of Consortium Members see increasing use of Parcel services



Companies see increasing parcel order fulfillment to keep pace with the growing customer demand for overnight or next day delivery spurred by internet purchasing. This growing trend has increased consumer deliveries and reduced the size of store deliveries and overall increasing the number of vehicles on the roadways. Parcel deliveries are primarily displacing LTL freight.

Thank You!

QUESTIONS? Discussion?!

Visit Us on the Web:

www.globalinsight.com

Thank you!

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