



Supply Chain Resource Cooperative
scrc.ncsu.edu, scm.ncsu.edu

"An Industry-University Partnership for Supply Chain Research and Education"

North Carolina Seafood Marketing Workshop

February 3, 2009

The Seafood Global Supply Chain

Rob Handfield, PhD

Bank of America University Distinguished Professor of Supply Chain Management

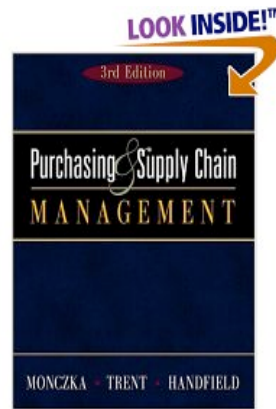
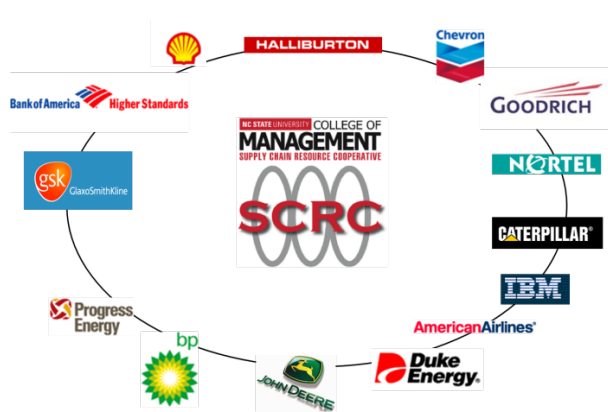
North Carolina State University

Co-Director, Supply Chain Resource Cooperative

Consulting Editor, *Journal of Operations Management*



Introductions...

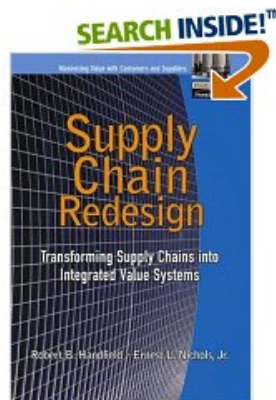
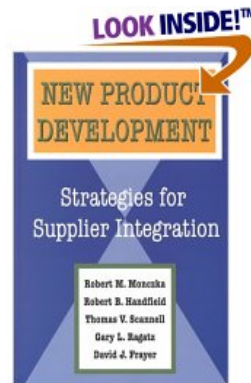
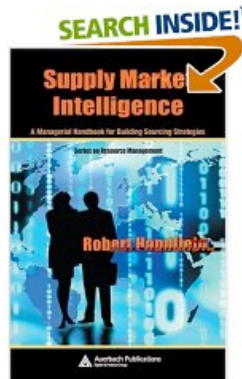


Rob Handfield, PhD

- Bank of America University Distinguished Professor of Supply Chain Management, NC State University
- Director, Supply Chain Resource Cooperative – top 3 MBA SCM programs in the US
- Adjunct Professor, Manchester Business School

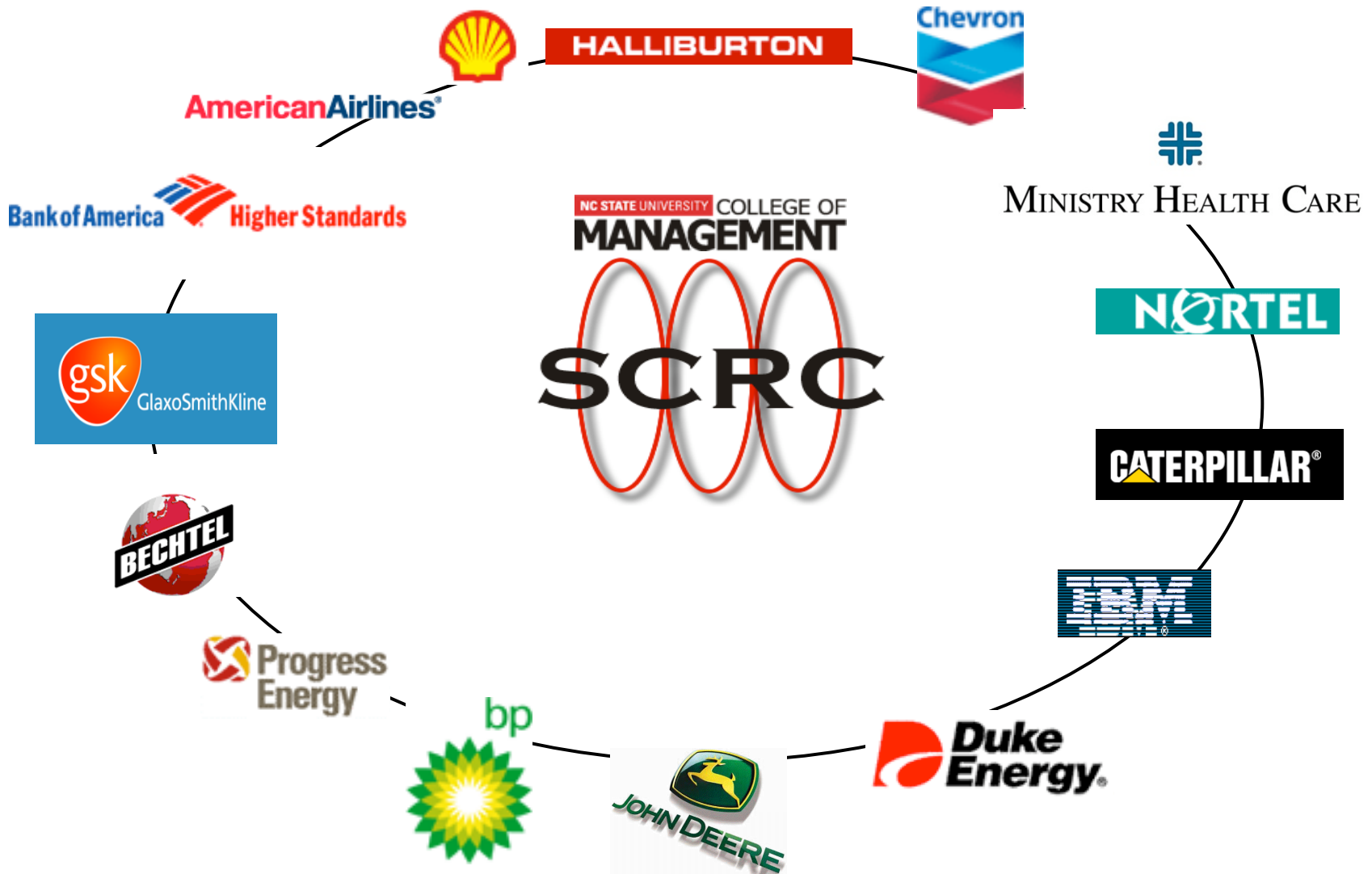
Research and consulting supply risk projects with different industries including:

- Baxter BioScience
- Bechtel
- Boston Scientific
- BP
- Cardinal Health
- Chevron
- ConocoPhillips
- Freightliner
- General Motors
- GlaxoSmithKline
- Home Depot
- Halliburton
- Lyondell
- Quintiles
- Shell Lubricants





Partner Companies

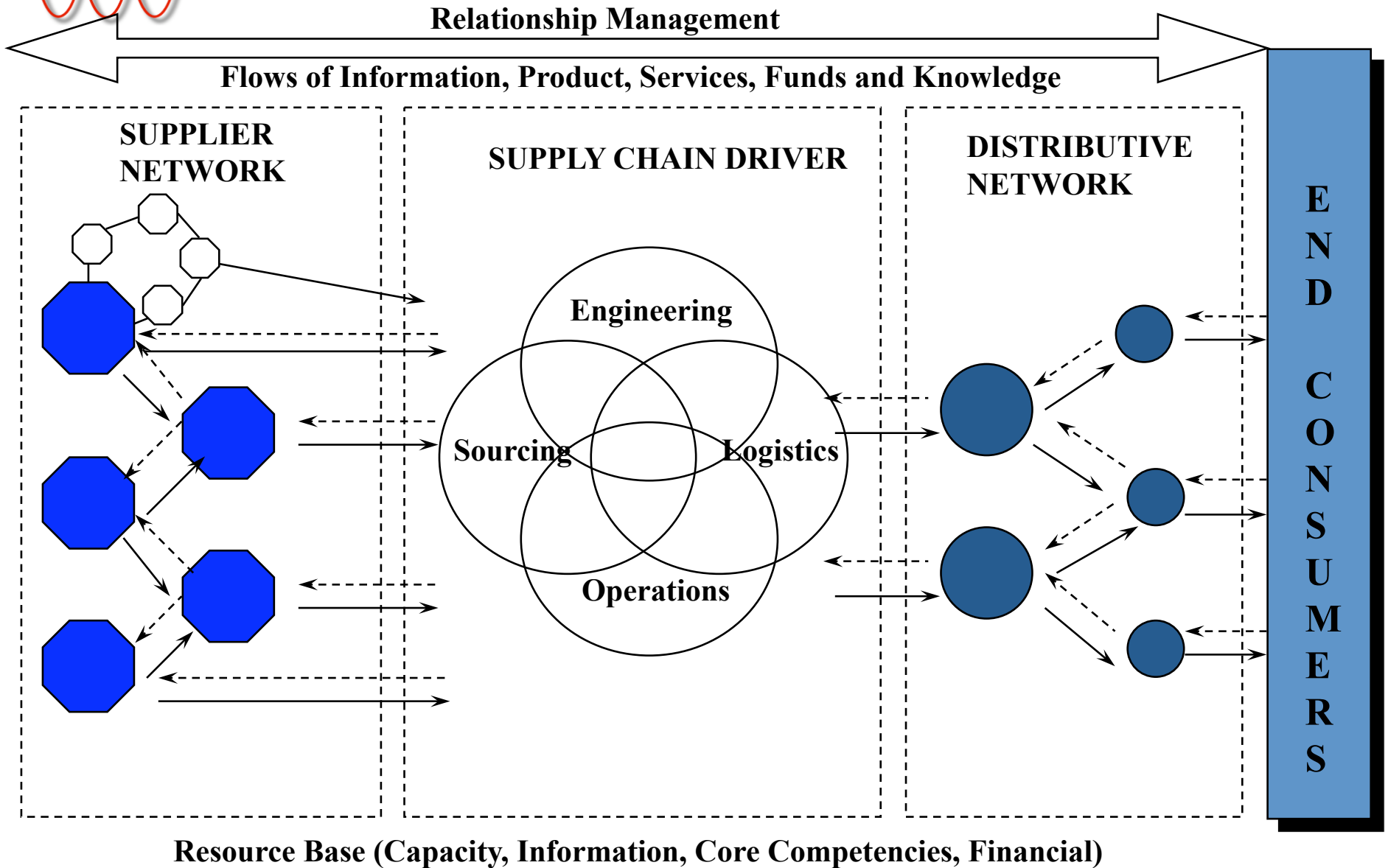


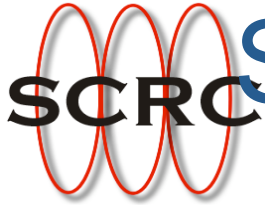


Agenda

- What is Supply Chain Management?
- Impact of the Economic Crisis on the Supply Chain
- What Does the Seafood Supply Chain Look Like?
- Challenges in this Environment
- Opportunities for NC Seafood Producers
- Final Thoughts and Q & A

The Integrated Supply Chain





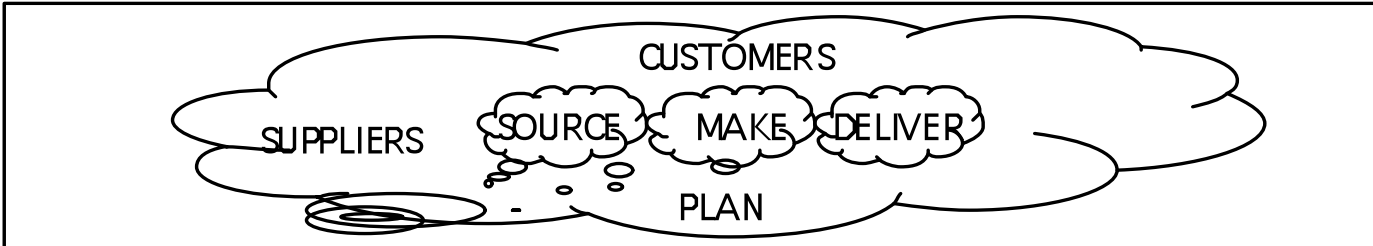
Supply Chain Management Definition

Supply chain management (SCM) is the integration and management of order fulfillment processes, organizations, and activities through *cooperative organizational relationships, effective business processes, and high levels of information sharing* to create high-performing *Value Systems* that provide companies, its customers and its suppliers a sustainable competitive advantage.

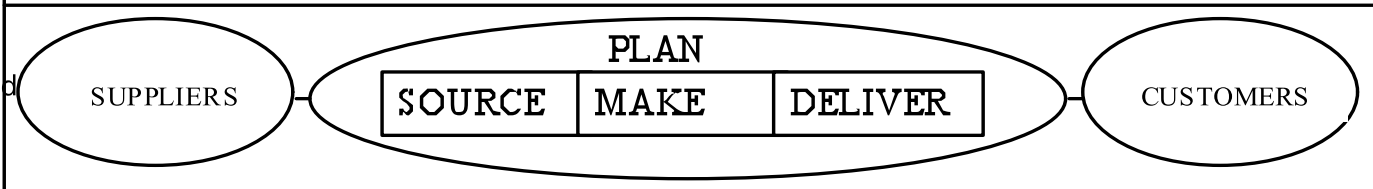


Supply Chain Management

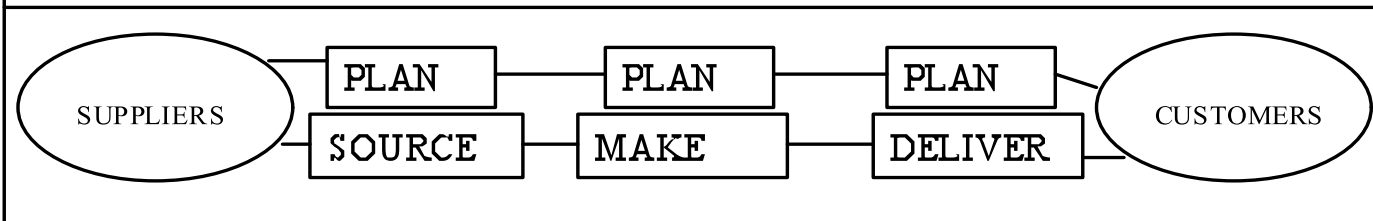
Extended



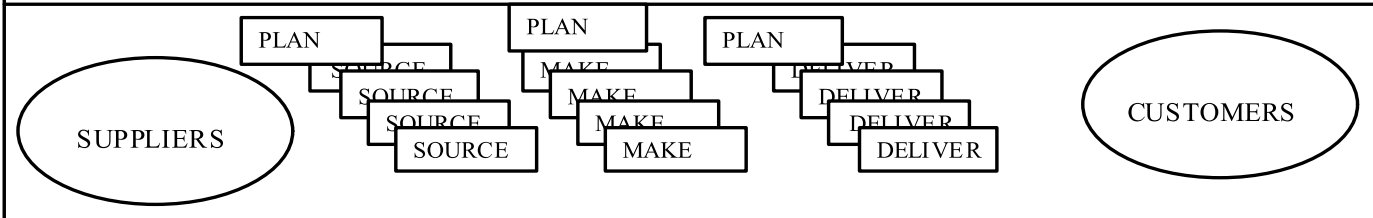
Integrated



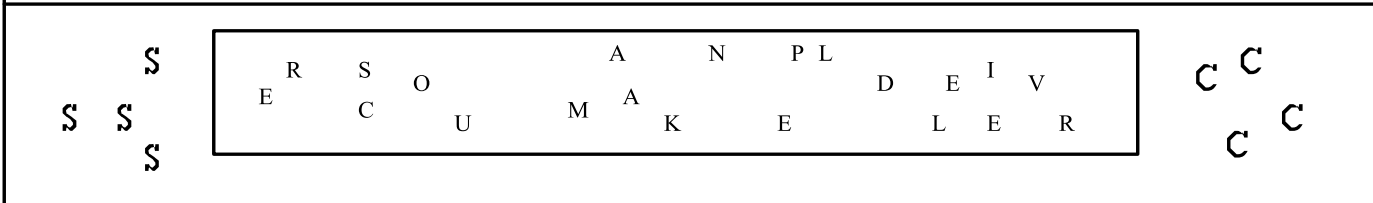
Linked



Defined

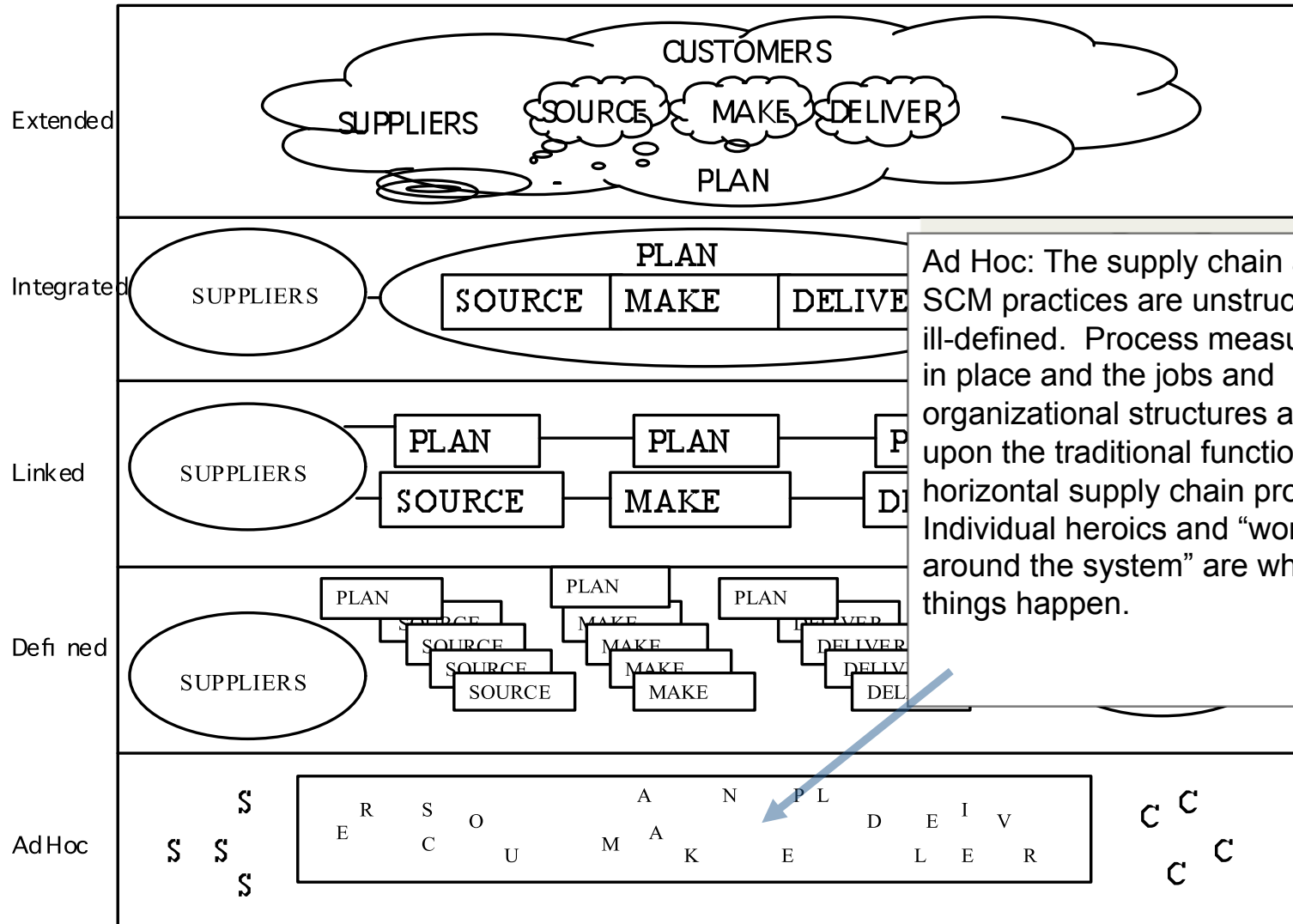


AdHoc





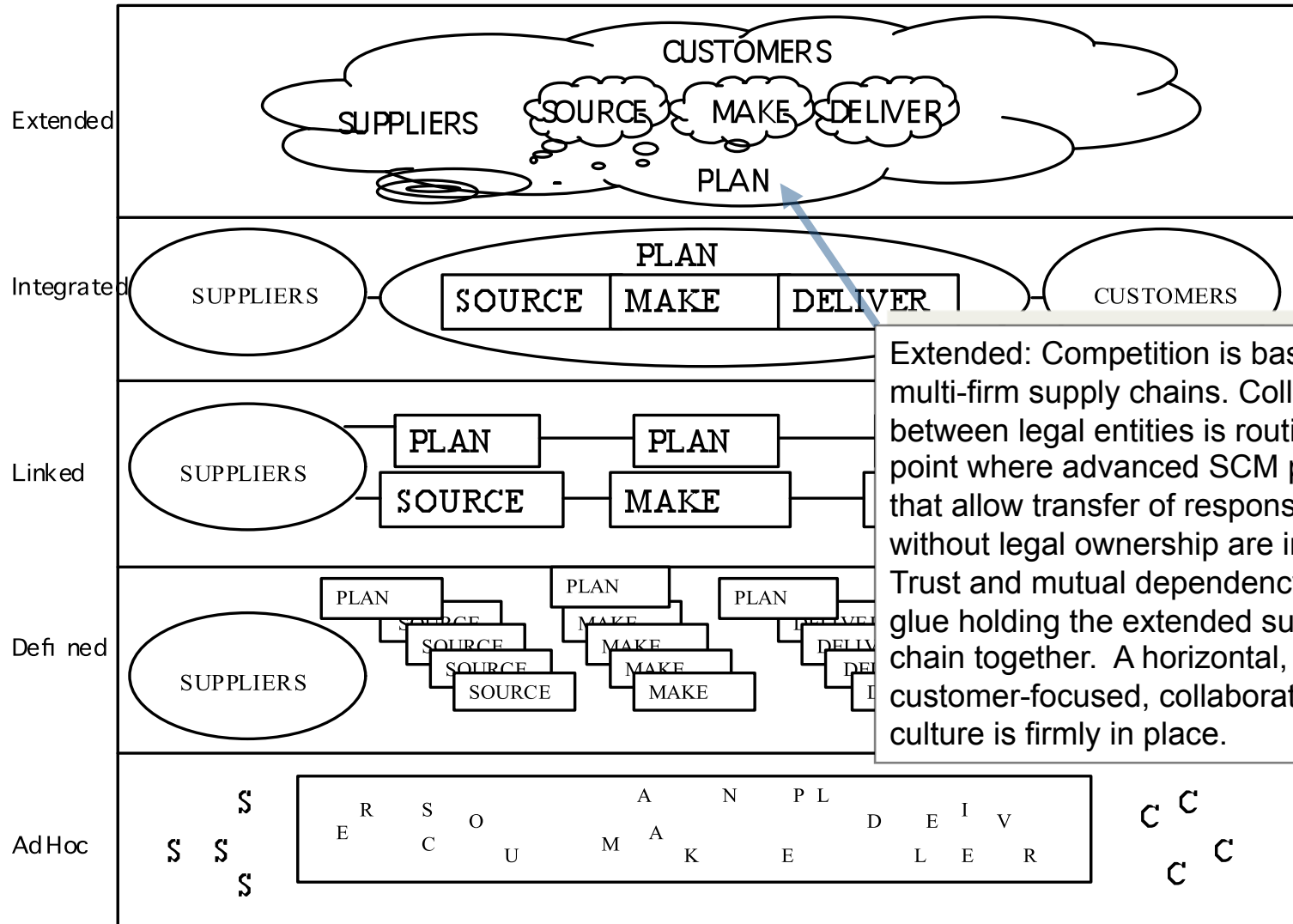
Supply Chain Management



Ad Hoc: The supply chain and the SCM practices are unstructured and ill-defined. Process measures are not in place and the jobs and organizational structures are based upon the traditional functions, not horizontal supply chain processes. Individual heroics and “working around the system” are what make things happen.



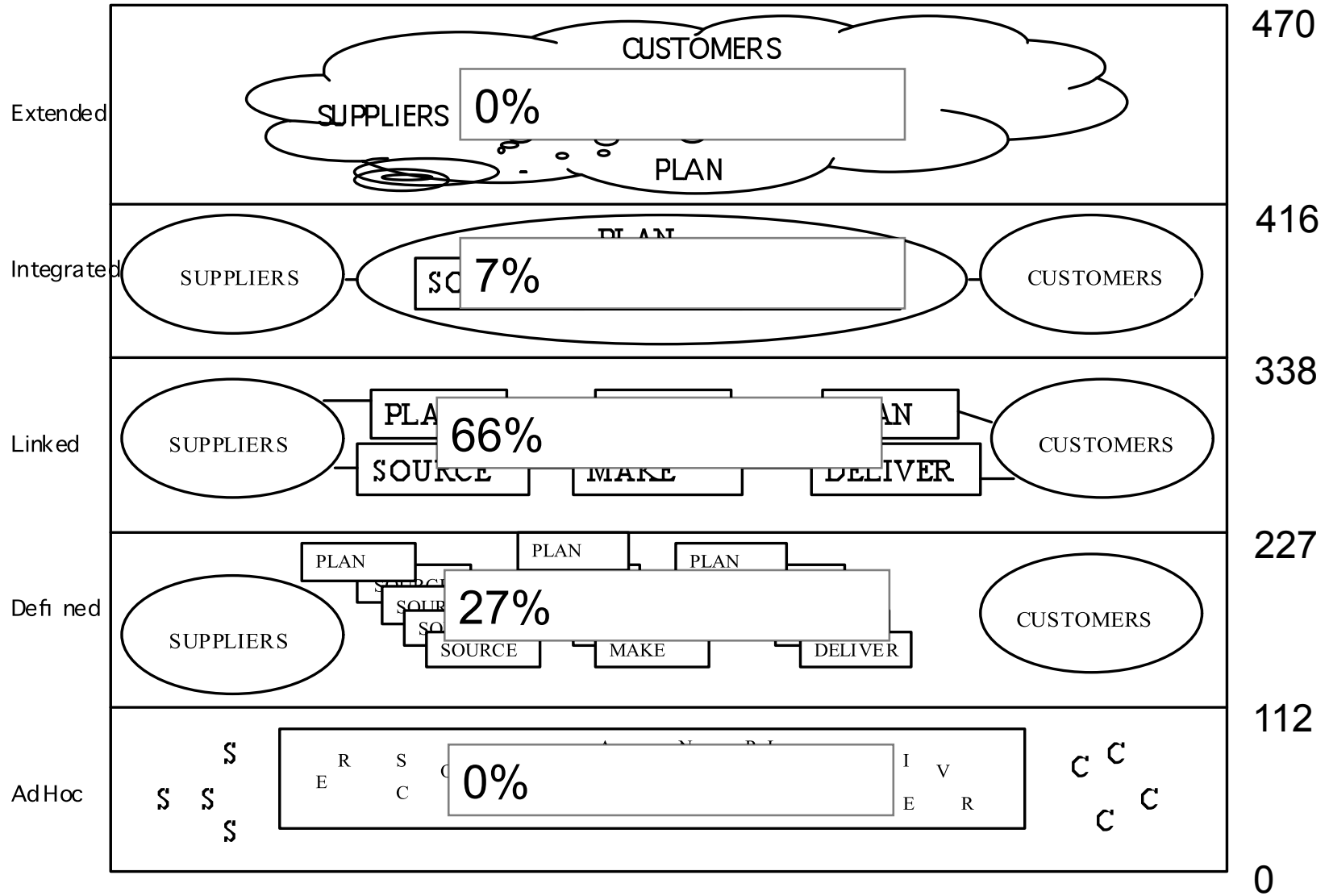
Supply Chain Management

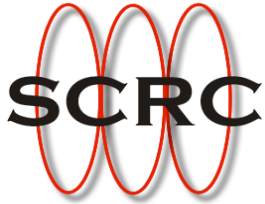


Extended: Competition is based upon multi-firm supply chains. Collaboration between legal entities is routine to the point where advanced SCM practices that allow transfer of responsibility without legal ownership are in place. Trust and mutual dependency are the glue holding the extended supply chain together. A horizontal, customer-focused, collaborative culture is firmly in place.

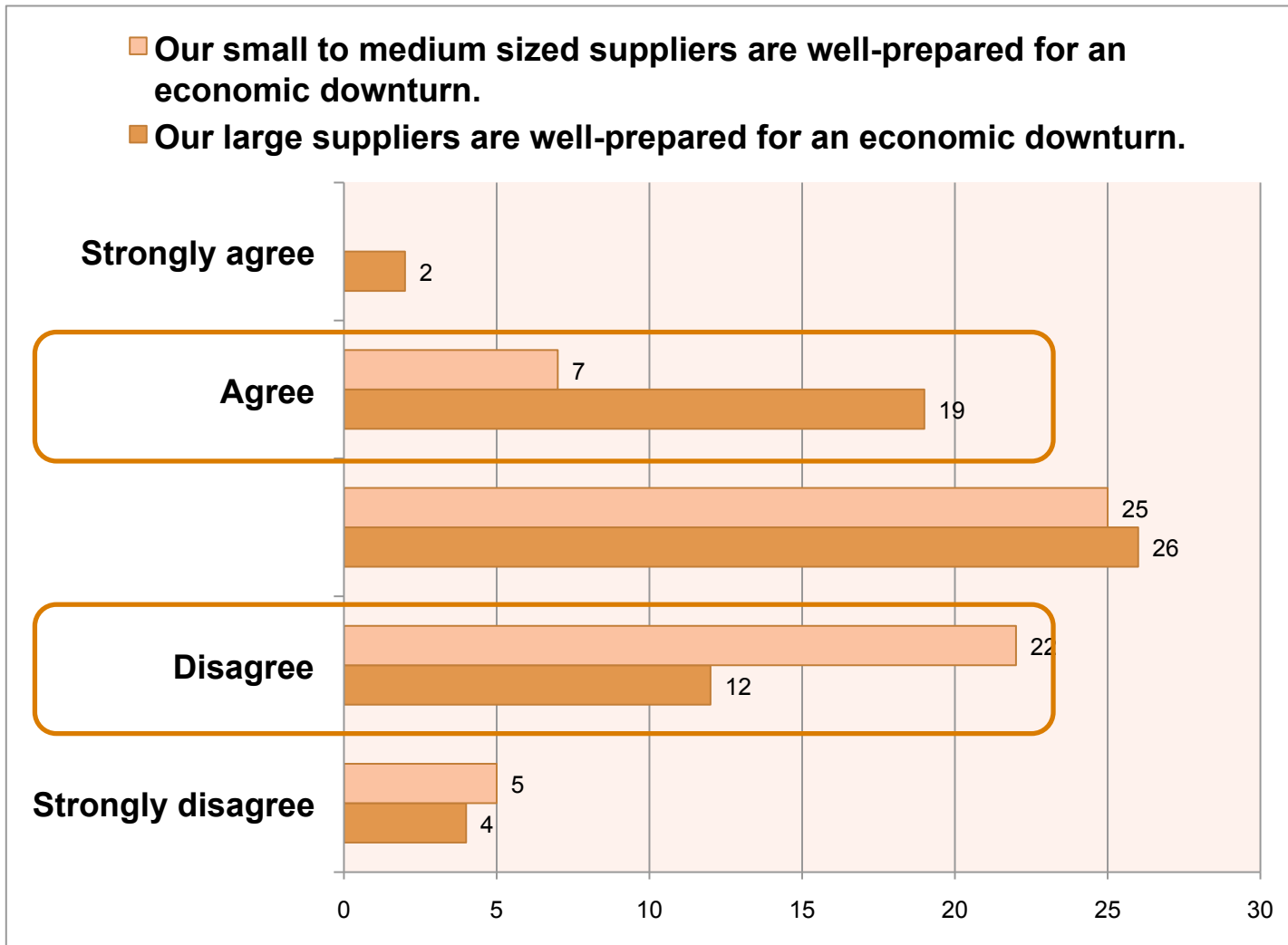


SCM Maturity Model - Base



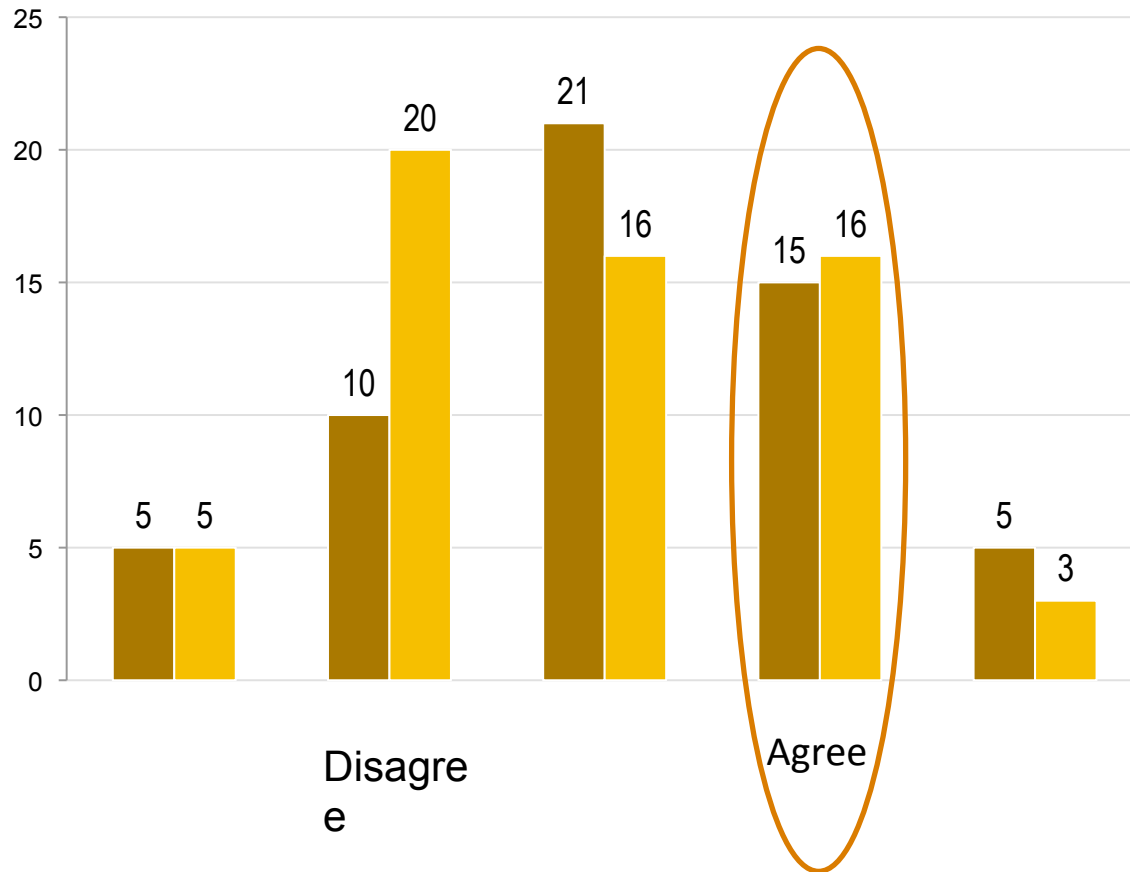


Small to medium sized suppliers are not as well prepared for the downturn compared to large suppliers.



Both supply side and customer side partners face a crunch, and are requesting improved payment terms

- We have had customers come to us requesting improved payment terms.
- We have had suppliers come to us requesting shorter payment terms.

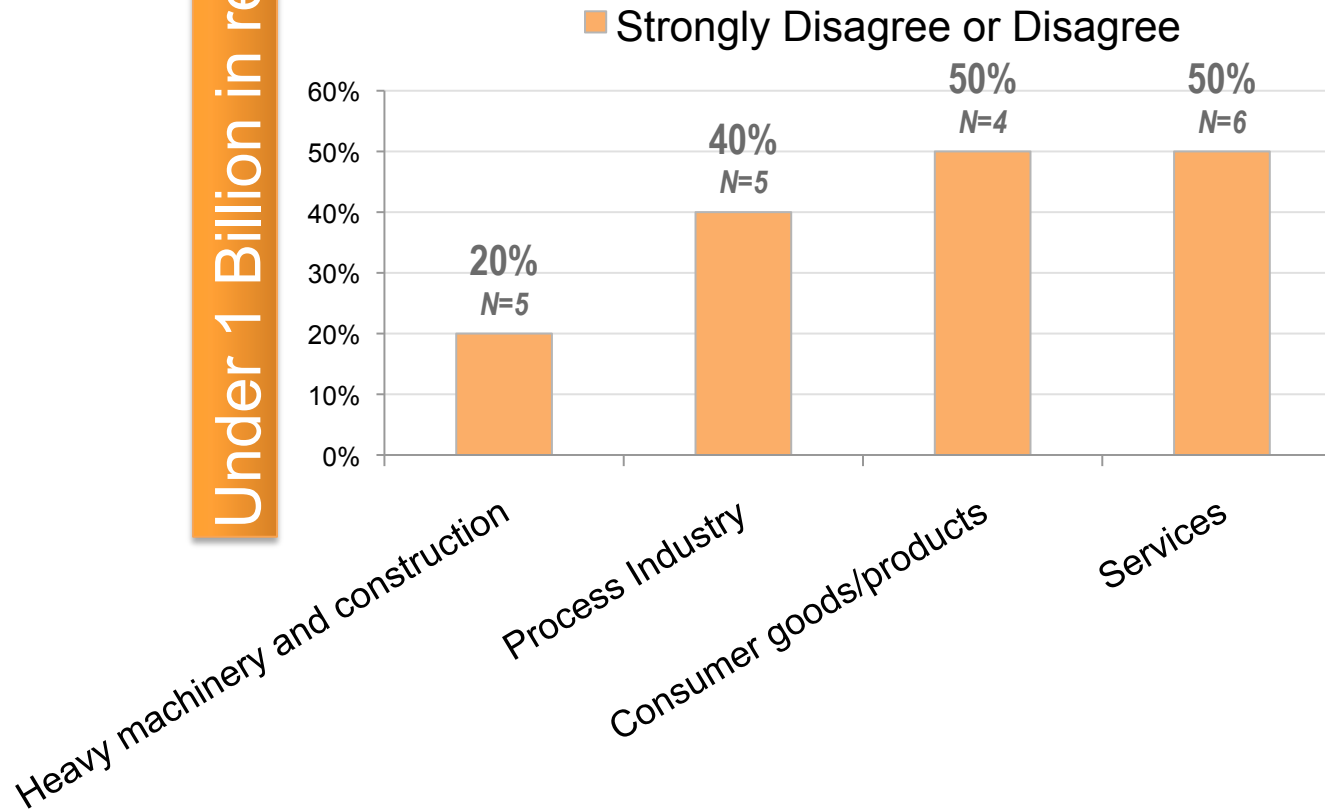




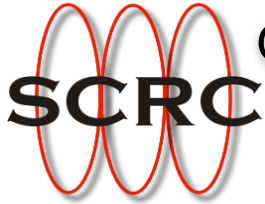
Small Consumer Goods and Service companies find their large suppliers at risk

Under 1 Billion in revenues

Our large suppliers are well-prepared for an economic downturn

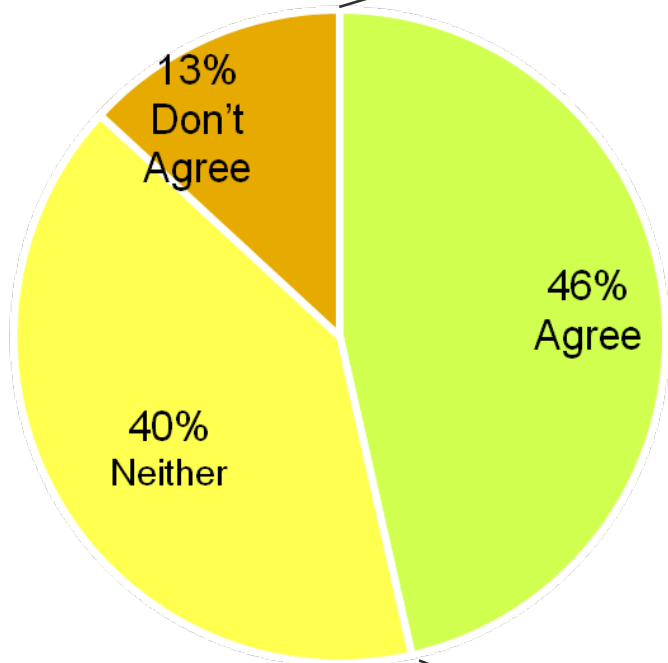


* 87 Total respondents



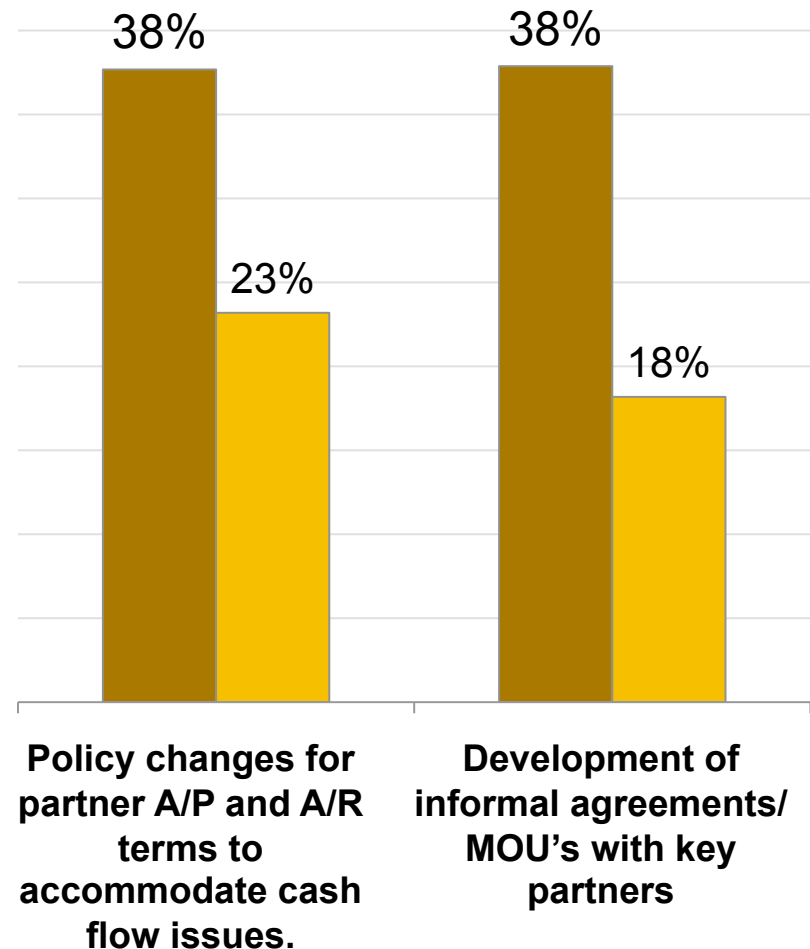
On going regular communication with supply chain partners
but *no significant evidence* of policy changes or
development of informal agreements for communicating
commitment to relationships

Regularly scheduled communication with supply chain partners

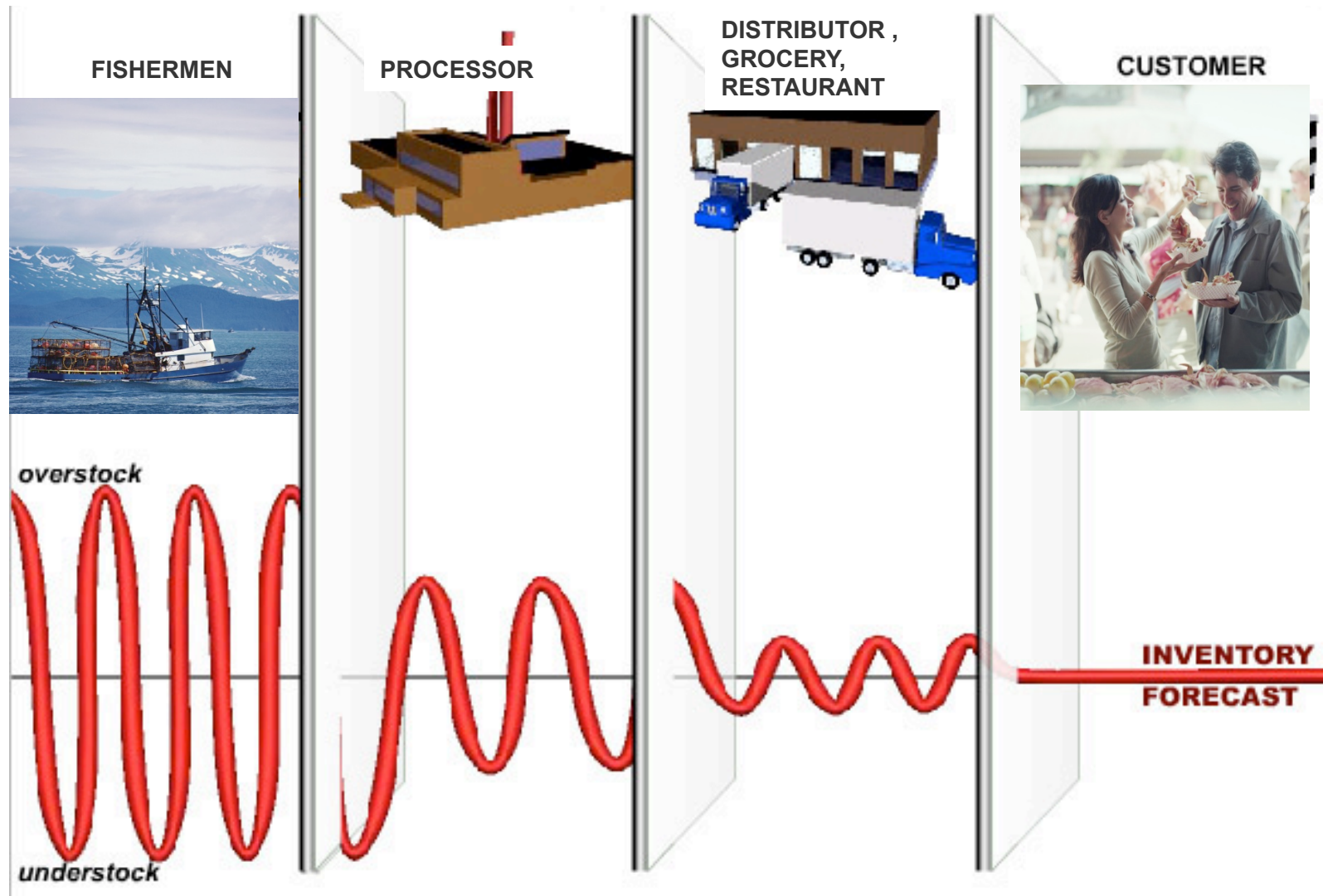


* 87 Total respondents

■ Strongly Disagree or Disagree ■ Strongly Agree or Agree



Supply and Demand Issues in the Seafood Supply Chain

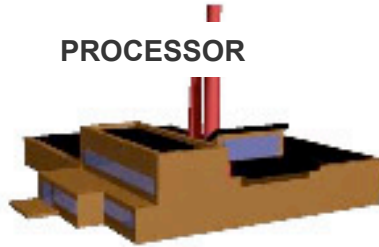


Benefits of Collaboration

FISHERMEN



PROCESSOR



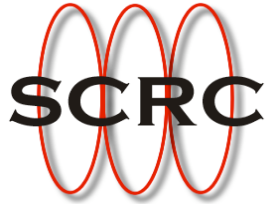
**DISTRIBUTOR ,
GROCERY,
RESTAURANT**



CUSTOMER



**INVENTORY
FORECAST**

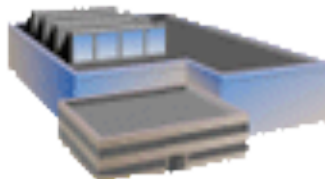
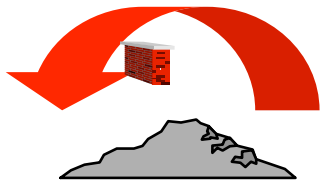


Traditional Communication Patterns



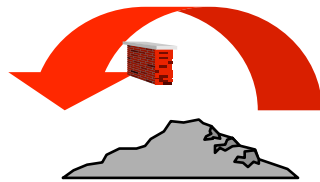
Fisherman

24 hrs



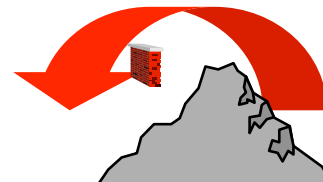
Processor

24 hrs



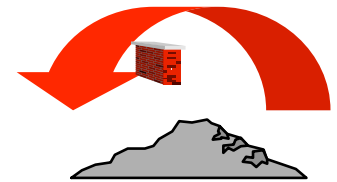
Distributor, Grocery,
Restaurant



24 hrs



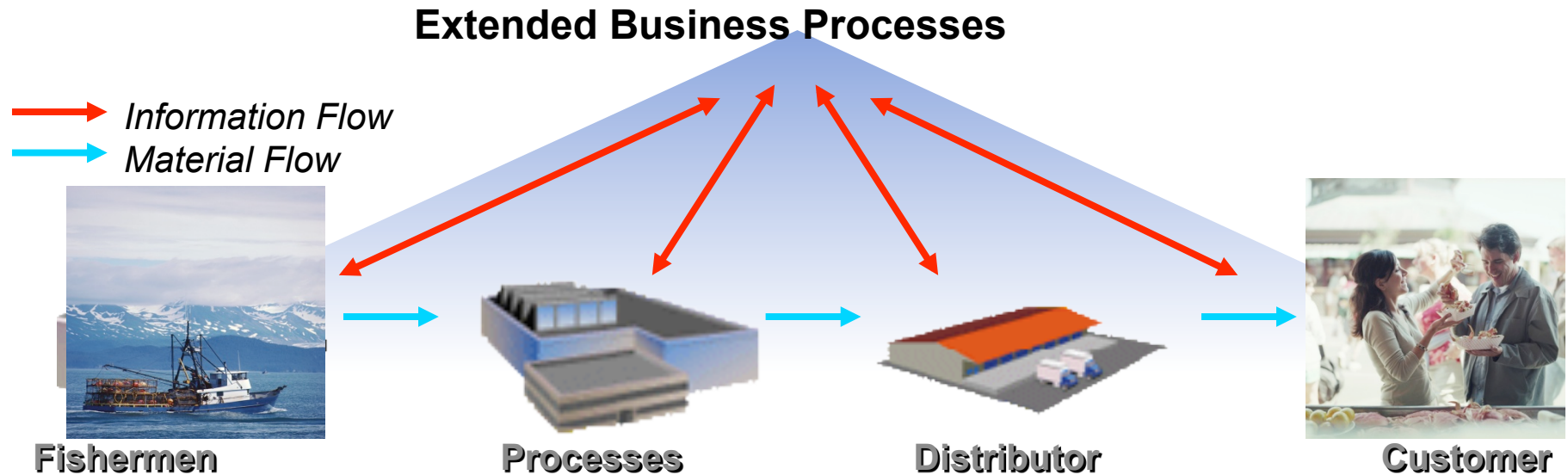
Customer

24 hrs



 Information Flow
 Material Flow

In a Perfect World....



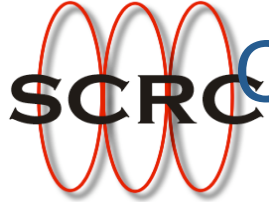
- Real time data
- Tighter integration of disparate systems
- Manage business processes by exception
- Alert management process

Discussion: Globalization of the Seafood Industry

- In 3 years, can US seafood continue to compete on the basis of low cost?
- If not - what is the core advantage they have in the market?
- What are the implications of this decision?

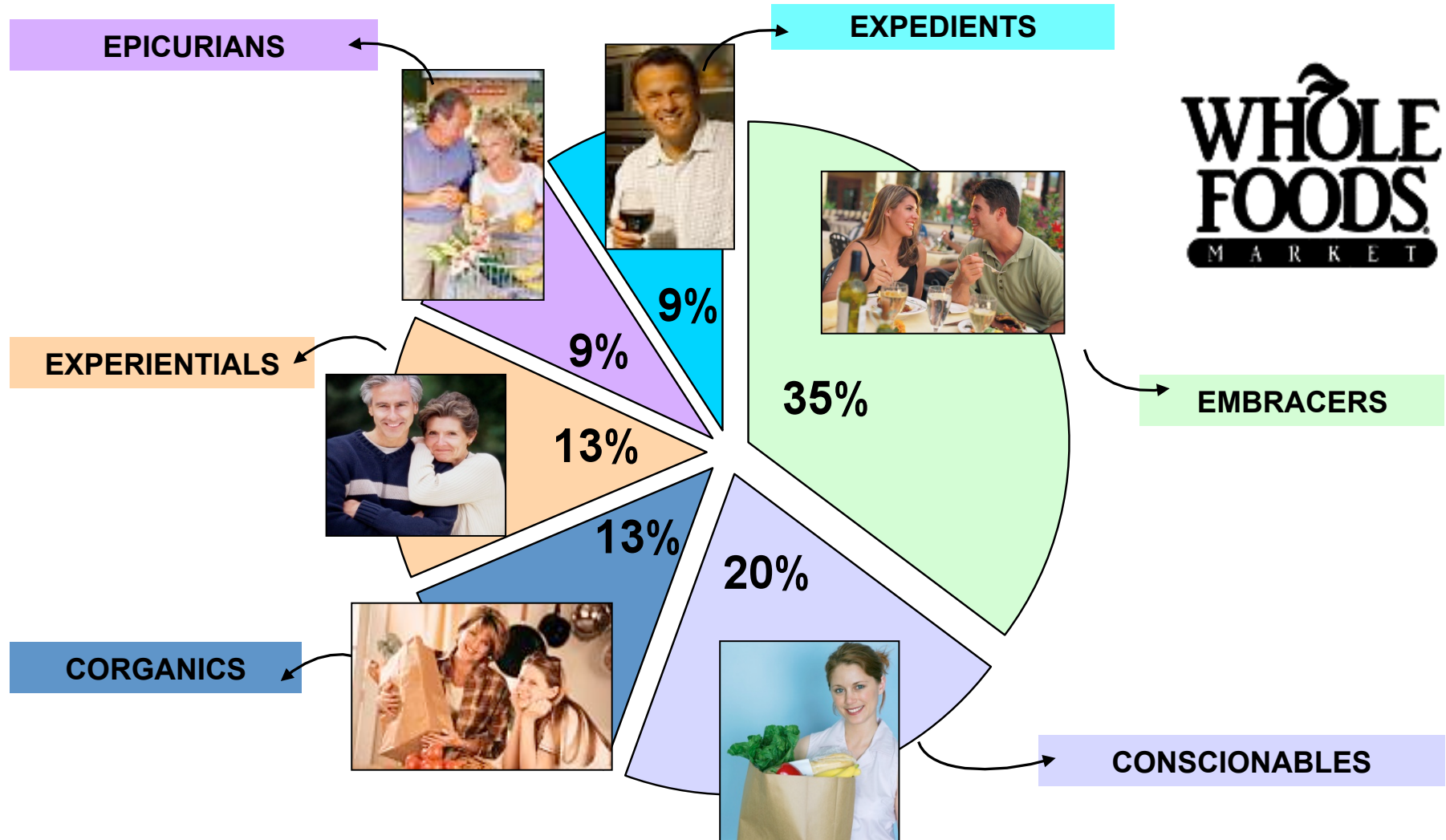






Case Study: Whole Foods Customers

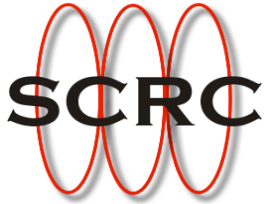
(% of all WFM Shoppers)



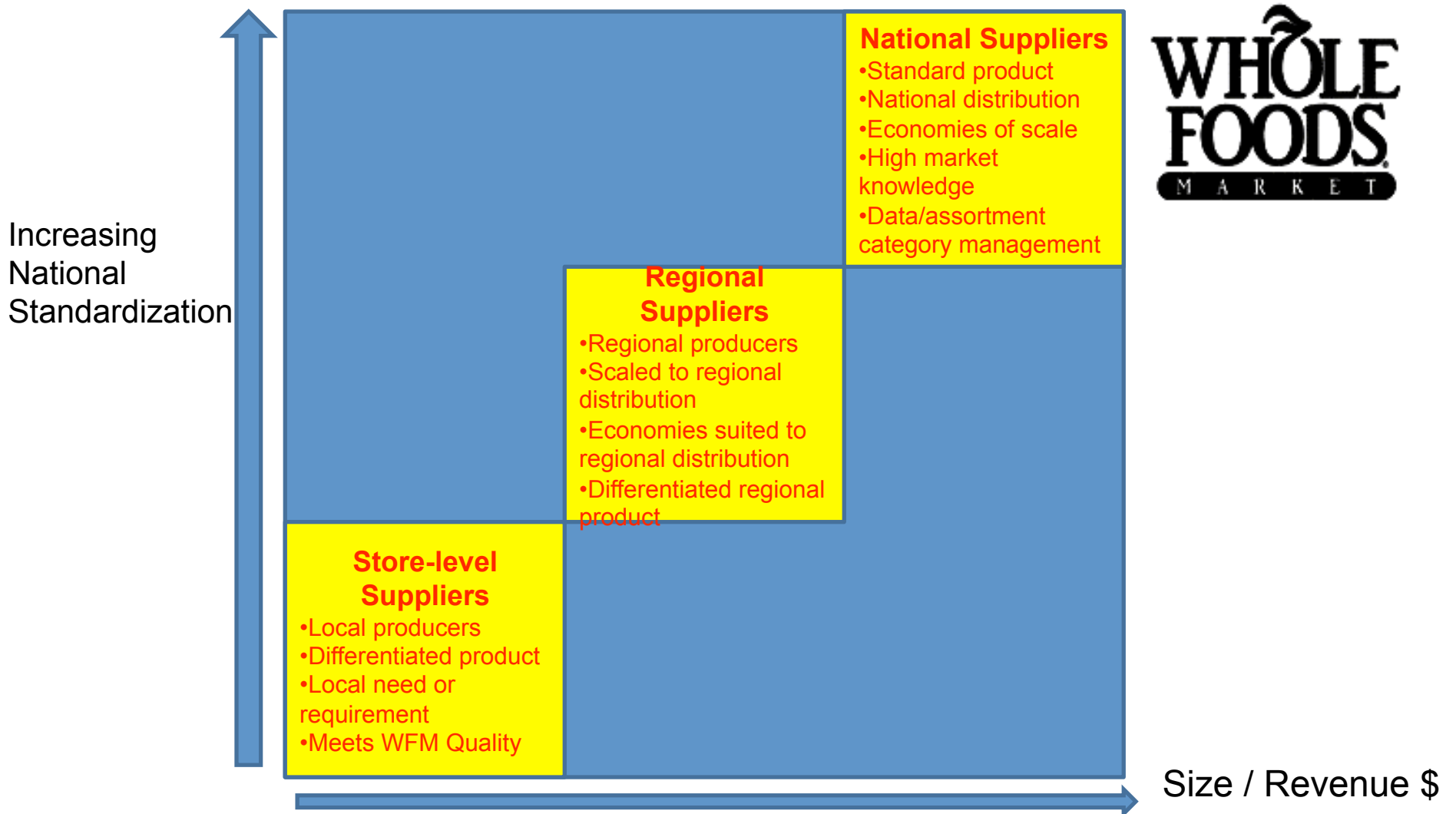


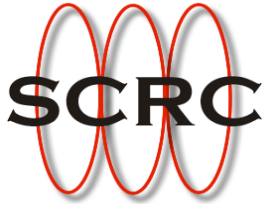
Summary Descriptors

EMBRACERS	35%	Represents the “typical” WFM Shopper. Holds core values on health, importance of natural/organic, LOHAS issues <u>and</u> finds specialty/gourmet products and food experiences important. Been shopping WFM the longest and buys many different products and categories.
CONSCIONABLES	20%	Embodies the core values and behaviors of the original WFM Shopper. Strong focus on organics and LOHAS issues. WFM’s social/environmental consciousness are a driving force. Frequent shoppers who spend the largest proportion of monthly grocery bill at WFM. Skews younger, female, less affluent, more liberal minded.
CORGANICS	13%	Strong organic orientation and shop WFM because they execute the organic mindset. Believers in the importance of healthy foods, and concerned about what is in food they eat and how it’s made. Frequent shoppers and big spenders. Skews female, households with kids.
EXPERIENTIALS	13%	All about the experience. This segment strives for unique and fun food experiences. They primarily buy produce and specialty/gourmet items; not particularly organic oriented. They are infrequent shoppers who aren’t heavy spenders. Profile is older, more traditional, with higher income.
EXPEDIENTS	9%	Convenience is key. They are not drawn to WFM because of its organic orientation, values, or specific product offerings, but simply because of its proximity. Few “regular” purchases; generally buy produce, prepared foods and a myriad of other items. Tend to be higher income males.
EPICURIANS	9%	Driven to WFM primarily because of the specialty/gourmet offerings and are not particularly organic or LOHAS-minded. Infrequent shoppers who spend less compared to other segments. Are older, highly educated, retired.



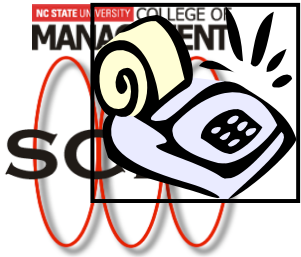
How does Whole Foods Market view their supply base?



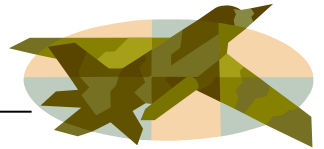


Cast Study - Seven Eleven Japan

- 8200 stores – Growing 500 per year
- Average store size = 1200 square feet
- 3000 SKU's per store – most with two week sales peak (50% new products every year)
- High cycle time merchandise
 - Drinks, noodles, bread, snacks (33%)
 - Fast food (rice balls, lunches, burgers – 32%)
 - Fresh food (milk and dairy) – 12%
 - Nonfood (magazines, ladies stockings, batteries) – 25%
- Strategy:
 - The Sharp Eye (Data Collection)
 - The Smart Brain (Conversion into Meaningful Data)
 - The Fast Arm (Agile Logistics)



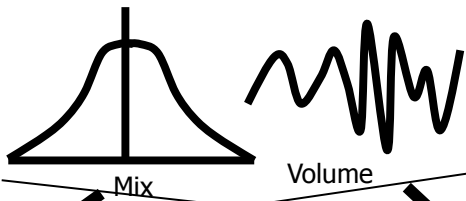
Weds AM: Recommended SKU's and Tactics for Action



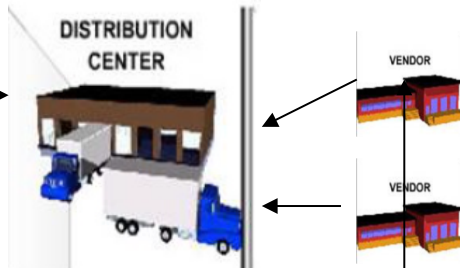
Aggregated POS Data



Clerk handheld scanner
Demographic data



Orders 3X Day

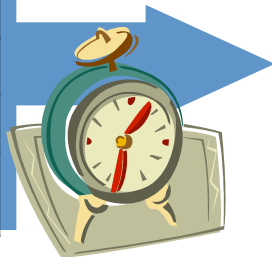


Regional SKU-level Analysis

Aggregated orders

Daily and HOURLY Sales And Stockouts

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



Tues AM – Presented to Operation Field Counselors In Tokyo
PM: Regional meetings



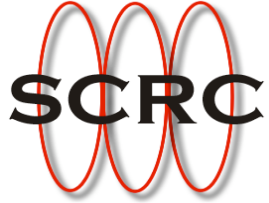
Mon AM Chairman + 100 Corporate Managers





Seven Eleven Japan - Results

- Daily sales/ store increased from \$3300 (1977) - \$6200 (2000)
- Average inventory turn time increased from 25.5 to 8.4 days
- Average gross margin increased from 24 to 30%
- A 100 yen investment in SEJ stock in 1980 would have been worth 300,000 yen in 2000.



One Option: A Distribution Buffer to Flash-Freeze and Store Seafood

Owning and operating a streamlined, compliant cold-chain warehousing and distribution center is a **COMPLEX** undertaking.





Issues to Consider

- ***Key Customer Accounts***
- ***Transportation and Utilities***
- ***Business Environment***
- ***Facility Validation and Maintenance***
- ***Project Management and Regulatory***
- ***Qualified Employees***
- ***Technology and Regulation***
- ***Insource or Outsource?***
- ***Partnering Opportunities?***



Questions to Consider Today

- How well do we understand our key customer requirements?
 - Packaging and forecasts?
 - Channels to ensure information is current?
- What are the types of information sharing that would most benefit the seafood community?
 - Customer preferences?
 - Forecasted volumes?
 - Pricing trends?
 - Premium markets?
- Are there opportunities here to solidify our position via new forms of relationships and open collaboration for the community?
- What do we believe the situation will look like in two years?
- How are we motivating people to act urgently?