Multinational Corporations and
Global Value Chain Analysis:
Shifting Paradigms for Development

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Seminario Internacional
Innovación Tecnológica y Rentas Económicas en las Redes Globales
de Producción: Un Enfoque desde las Estrategias de Desarrollo

El Colegio de México
6 Y 7 De Marzo de 2008, Ciudad de México
Agenda

- Shifting Development Paradigms
- Global Value Chains and Upgrading
- North Carolina in the Global Economy
- Value Chain Analysis and Global Health
- New Development Challenges
Shifting Development Paradigms

- Traditional approach (1960s-1970s)
  - MNCs and Dependency Theory

- Neoliberalism (1980s-1990s)
  - Export-oriented industrialization
  - Global sourcing by “big buyers” (retailers and marketers)
  - Global commodity chains
  - Global production networks

- Consolidation of global supply base (2000s)
  - Beyond production networks
  - New patterns of upgrading
  - Global value chain analysis
Global Value Chains and Upgrading:

Concepts and Typologies
What is Global Value Chain Analysis?

- **Actors** in global industries, and how their roles are changing (lead firms plus supply chains)
- **Power** in the chain (brands, global buyers)
- **Linkages** – between GVC activities (firms, intra-firm, networks)
- **Geography** – locate domestic and national industries in their global context
- **Institutions** – Government, unions, trade associations, NGOs, multi-lateral agencies and regulations

Industrial Upgrading Strategies

- **Product upgrading**
  - better quality
  - more features
  - improved design

- **Process upgrading**
  - increase scale and speed
  - raise efficiency and productivity (e.g., lean production)

- **Functional upgrading**
  - Incremental (bundling)
    - Upstream
    - Downstream
  - Radical (move to different stages in chain)
THE ORGANIZATION OF PRODUCER-DRIVEN AND BUYER-DRIVEN GLOBAL COMMODITY CHAINS

Producer-driven Commodity Chains

- Manufacturers
- Distributors
- Retailers and Dealers
- Domestic and Foreign Subsidiaries and Subcontractors

Buyer-driven Commodity Chains

- Factories
- Traders
- Overseas Buyers
- U.S. MARKET
- Branded Marketers
- Retailers
- Branded Manufacturers

Notes: Solid arrows are primary relationships; dashed arrows are secondary relationships.

- Retailers, branded marketers, and traders require full-package supply from overseas factories.
- Branded manufacturers ship parts for overseas assembly and re-export to the manufacturer's home market.
Upgrading in Apparel

U.S.-TORREON APPAREL COMMODITY CHAIN

1993

UNITED STATES

TORREON

Textiles Trims and Labels Cutting Assembly Laundry and Finishing Distribution Marketing Retail

1996

UNITED STATES

TORREON

Textiles Trims and Labels Cutting Assembly Laundry and Finishing Distribution Marketing Retail

2000

UNITED STATES

TORREON

Textiles Trims and Labels Cutting Assembly Laundry and Finishing Distribution Marketing Retail
Apparel: Pre-NAFTA Maquila Networks in Torreón’s Blue Jeans Cluster

Textile Mills

U.S. Manufacturer

Retailer

U.S. Broker

United States

Mexico

Assembly Plants (U.S. & Mexican Owned)

Key

Full-package networks (orders)

Assembly networks (cut parts)
Post-NAFTA Full-Package Networks in Torreón

U.S. Lead Firms
- Retailers
- Marketers
- Manufacturers

Textile Mills

Retailer
JC Penney

Marketer
The Gap

Manufacturer
Wrangler

United States

Mexico

Full-package Manufacturers

Textile Mills

Joint Ventures/U.S. Subsidiaries

Assembly Plants/Subcontractors

Key
Full-package networks (orders)
Assembly networks (cut parts)
The Nested Geographic and Organizational Structure of the Automotive Industry

- **Regional production systems:**
  - Intra-regional finished vehicle and parts flows are the dominant operational pattern in this industry.

- **National production systems:**
  - Domestic production is still very strong in this industry, and still dominates many national markets.

- **A global industry:**
  - Automakers and global suppliers form buyer-supplier relationships on a global scale. Inter-regional vehicle and parts trade is substantial, but capped by political and operational considerations.

- **Local clusters:**
  - Activities tend to be concentrated within clusters of specialized activity, such as design and assembly.
Global Production Systems – Celestica’s total geographic flexibility in electronics
Five GVC Governance Types

- Market
- Modular
- Relational
- Captive
- Hierarchy

End Use

Customers

Price

Suppliers

Lead Firm

Turn-key Supplier

Component and Material Suppliers

Lead Firm

Relational Supplier

Component and Material Suppliers

Lead Firm

Integrated Firm

Materials

Value Chain

Low

Degree of Explicit Coordination

High

Degree of Power Asymmetry
# Five GVC Governance Types

<table>
<thead>
<tr>
<th>Governance Type</th>
<th>Complexity of transactions</th>
<th>Ability to codify transactions</th>
<th>Capabilities in the supply-base</th>
<th>Degree of explicit coordination and power asymmetry</th>
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<tbody>
<tr>
<td>Market</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>Low</td>
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<tr>
<td>Modular</td>
<td>High</td>
<td>High</td>
<td>High</td>
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<tr>
<td>Relational</td>
<td>High</td>
<td>Low</td>
<td>High</td>
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<tr>
<td>Captive</td>
<td>High</td>
<td>High</td>
<td>Low</td>
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<tr>
<td>Hierarchy</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
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North Carolina in the Global Economy:

Using Value Chains to Study Local Competitiveness in Key Industries
North Carolina, with its unique mix of industries, from information technology, biotech, and banking, to the traditional sectors of textiles & apparel, furniture, tobacco, and hog farming, is a microcosm of trends observed elsewhere in the United States. This website presents and analyzes up-to-date information about how industrial restructuring in an era of globalization is impacting North Carolina's key industries.
What is a value chain?

A value chain describes the full range of activities that firms and workers carry out to bring a product from its conception to its end use and beyond.

- This includes activities such as design, production, marketing, distribution and support to the final consumer.
- The activities that comprise a value chain can be contained within a single firm or divided among different firms.
- Value chain activities can produce goods or services, and can be contained within a single geographical location or spread over wider areas.
Mapping main firms and supply chain segments
North Carolina’s Textiles/Apparel Industry


Source: NC-Global Economy Project (http://www.soc.duke.edu/NC_GlobalEconomy/)
Where Have North Carolina’s Jobs Gone?  
The Growth of Torreon’s Apparel Industry

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</thead>
<tbody>
<tr>
<td>Total Output (garments per week)</td>
<td>500,000</td>
<td>4.0 million</td>
<td>6.0 million</td>
<td>4.0 million</td>
</tr>
<tr>
<td>Output per Company (garments per week)</td>
<td>Max. 50,000</td>
<td>Max. 230,000</td>
<td>Max. 480,000</td>
<td>Max. 300,000</td>
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<tr>
<td>Mexican Denim in Export Production</td>
<td>1-2%</td>
<td>5%</td>
<td>15%</td>
<td>15%</td>
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<tr>
<td>Assembly Price per Piece</td>
<td>US$0.90-1.10</td>
<td>US$1.20-2.05</td>
<td>US$1.60-3.00</td>
<td>US$2.00-3.00</td>
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<tr>
<td>Employment</td>
<td>12,000</td>
<td>65,000</td>
<td>75,000</td>
<td>40,000</td>
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Innovative Solutions: High-Tech Textiles

• North Carolina firms and universities are working together to develop *high-tech textiles*, a new breed of technology-intensive textile products.
  – These products use new, innovative materials and processes to create products with a wide array of uses...
    • Medical devices
    • Automotive industry
  – Raleigh’s North Carolina State University has taken the lead on this, and major firms like Freudenberg (German) and Nano-Tex (USA) are playing active roles.

• This sector tends to have fewer jobs, but jobs have higher pay and have greater productivity.
Strategic Solutions: Replacing Low Tech with High Tech

• Kannapolis: seeking to use private capital to transform an traditional textile center into an innovative biotech hub.

  – Fall 2003: Pillow-Tex, a key plant in downtown Kannapolis, closes, laying off 5,000 workers.
  – December 2004: Dole Foods owner David Murdock buys the plant.
  – September 2005: Murdock announces that the site would be turned into the centerpiece of the North Carolina Research Campus, a 350-acre site that may include:
    • Advanced laboratory space
    • Offices and labs of more than 100 biotechnology companies
    • Education and training center for biotechnology jobs
    • Residential and retail space in downtown Kannapolis.

Source: Carolina Newswire, 13 September 2005
Value Chain Analysis and Global Health:

Food, Healthy Diets and Childhood Obesity
Building a GVC framework to study childhood obesity

- Global Processes
- Multinational Corporation Cases
- Developing Country Cases
Global Processes: Connecting Developed and Developing Countries

- Trade
- Foreign Direct Investment
- Diffusion of “Western Lifestyle”

Developed Countries (e.g., U.S.)
Developing Countries (e.g., Mexico, China)
<table>
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<tr>
<th>Factor</th>
<th>Conventional Wisdom</th>
<th>Reality</th>
</tr>
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</table>
| Trade  | Processed food exports out of developed countries affect childhood obesity. Processed foods include:  
- packaged foods  
- beverages | ![Pie chart showing trade percentages](image)  
Source: Regmi and Gehlar (2005) |

**Bottom Line:**  
- Processed food is only a small amount of developing country imports  
- It can’t be the main determinant of childhood obesity
The China Case

Childhood Obesity and Overweight Males (7-12) in China, 1985-2000

Prevalence

Determinants

- Rapid modernization
- One-child policies
- High urbanization
- Increased incomes
- Change in diet toward processed foods and meat in fast-foods

Source: Ji et al. 2004
The Mexico Case

Prevalence

Prevalence of risk of obesity or at risk for obesity by region and year of survey in Mexico children ages 2-4.

Determinants

- Food insecurity for low-income
- Unhealthy diet
- Food advertising
- Family structure, limited parental presence
- Urban dwellers eat worse
- Childhood obesity high in Northern regions

Data gathered by authors from Mexico’s first (1988) and second (1999) national surveys.
Source: Rivera et al. 2000
Interaction of Global and Local Value Chains

Developed Countries

Global Agro-Business → MNC Food Manufacturers (Kraft, Nestlé) → Global Fast-food Franchises (McDonald’s, KFC) → Global Retailers (supermarkets, discount foods, Wal-Mart)

Local food production system

Local Farmers → Local Food Producers → MNC Franchises (fast-food chains) → Local Franchises (fast-food & traditional)

Developing Countries

Global Retailers (supermarkets, convenience stores, street vendors) → Local Retailers (supermarkets, convenience stores, street vendors) → Food Consumption Patterns (healthy and unhealthy diets)
Multinational Corporation Case Studies

**MNCs**
- McDonald’s
- KFC
- PepsiCo
- Nestlé
- Kraft

**Company Strategies**
- Global Branding
- Global Reach (franchises, world sales)
- Corporate Social Responsibility (healthy food initiatives)
Corporate Social Responsibility

Recent Initiatives

**McDonald’s**
- Salads, low-fat desserts, more chicken and fish burgers introduced (2000)
- Super size option discontinued and balanced lifestyle initiative launched (2004)
- Nutritional information posted in restaurants and on website
- Consumers encouraged to go “skinless” for a lower fat option

**KFC**
- Healthier options tested, including Oven Roasted Chicken (2004)
- Campaign on fried chicken as part of a healthy diet launched (2003)
- Trans fat eliminated from all chicken (2007)
- CFBAI initiative to limit direct advertising to children under 12 to only Smart Spot products (in effect by Jan. 1, 2008)

**PepsiCo**
- EPODE, French acronym for “Let’s work together to prevent obesity in children” (1992)
- Acquired Jenny Craig (2006)
- Acquired Novartis Medical Nutrition (2007)

**Nestlé**
- Healthy living principles encouraged
- Kraft Community Nutrition Program set up in the U.S. (1997)

**Kraft**
- Healthy living principles encouraged
- Kraft Community Nutrition Program set up in the U.S. (1997)
Value Chain Analysis, Globalization and New Frontiers of Development
Global Value Chains as a Framework to Study New Development Challenges

- Determinants of Economic Competitiveness (global, national, regional, local)
  - Trade and FDI
  - Upgrading
- Environment
- Knowledge Economy
- Global Health
- Labor and Gender Issues
- Excluded countries, regions, and groups
- State Policy in a Post-Washington Consensus World
Thank you for your attention!

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