

Western Forest Economists

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Developing an Agenda for Economic
Clusters Research

by

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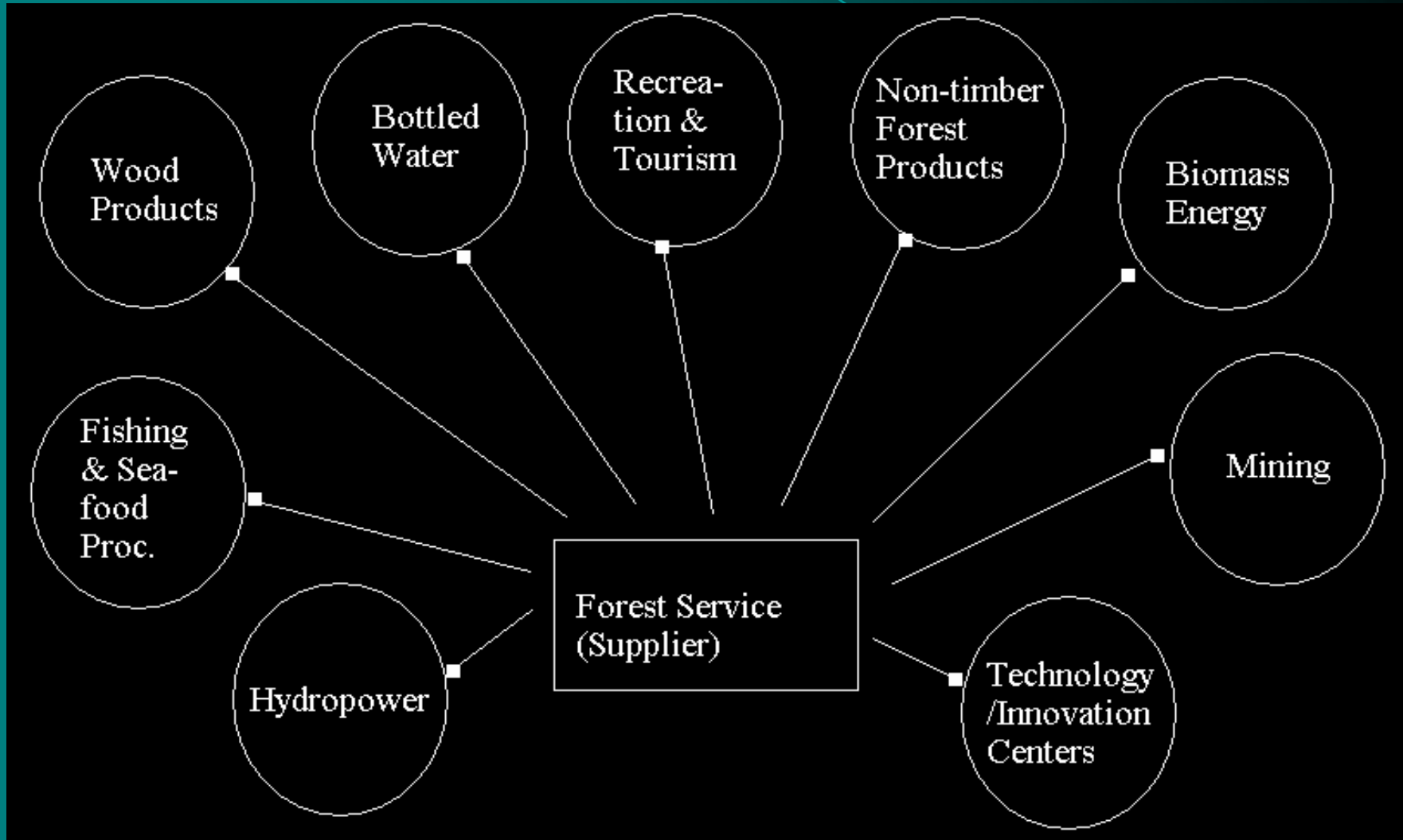
Wood Utilization, Research &
Development Center

Sitka, AK

National Forest-based Cluster Firms

- Cluster-based development approach: critical mass of companies in a particular location
- Upgrade microeconomic environments of National Forest-based communities
- Improve welfare via higher productivity thru innovation
- National Forest-based cluster firms: public/private partnerships
- Integrate public sector objectives with private sector strategies
- Provide natural resources products/services to local, regional, national and international markets

National Forest-based Cluster Firms: Public/private partnerships



PNW's "Marshallian" Worldview

“As many firms agglomerate, as a group they may be able to realize lower input prices that may shift or lower cost curves. This is because when many firms within an industry locate within a concentrated area, it is advantageous for other firms to specialize in providing services to the concentrated industry and to locate near the concentrated industry. Interdependency between the industry and intermediate or input firms may develop. Concentration of several firms within an industry also offers a pooled market of workers with industry-specific skills.”

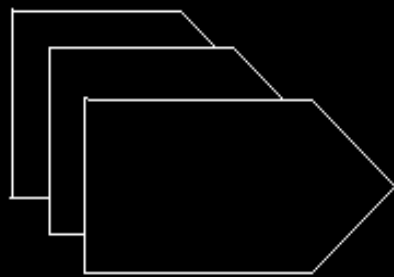
Tsournos and Haynes, An Assessment of Growth and Development Paths for Southeast Alaska, (2004)

Firm's Value Chain



The Value Chain, Porter (1990)

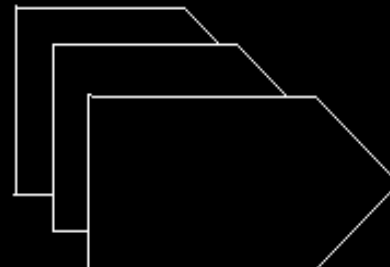
The Value System



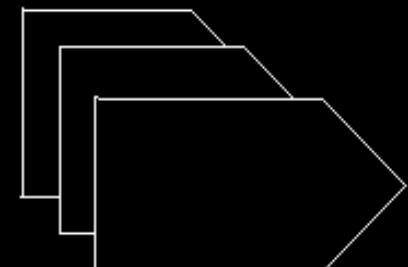
Supplier
Value Chains



Firm
Value Chain



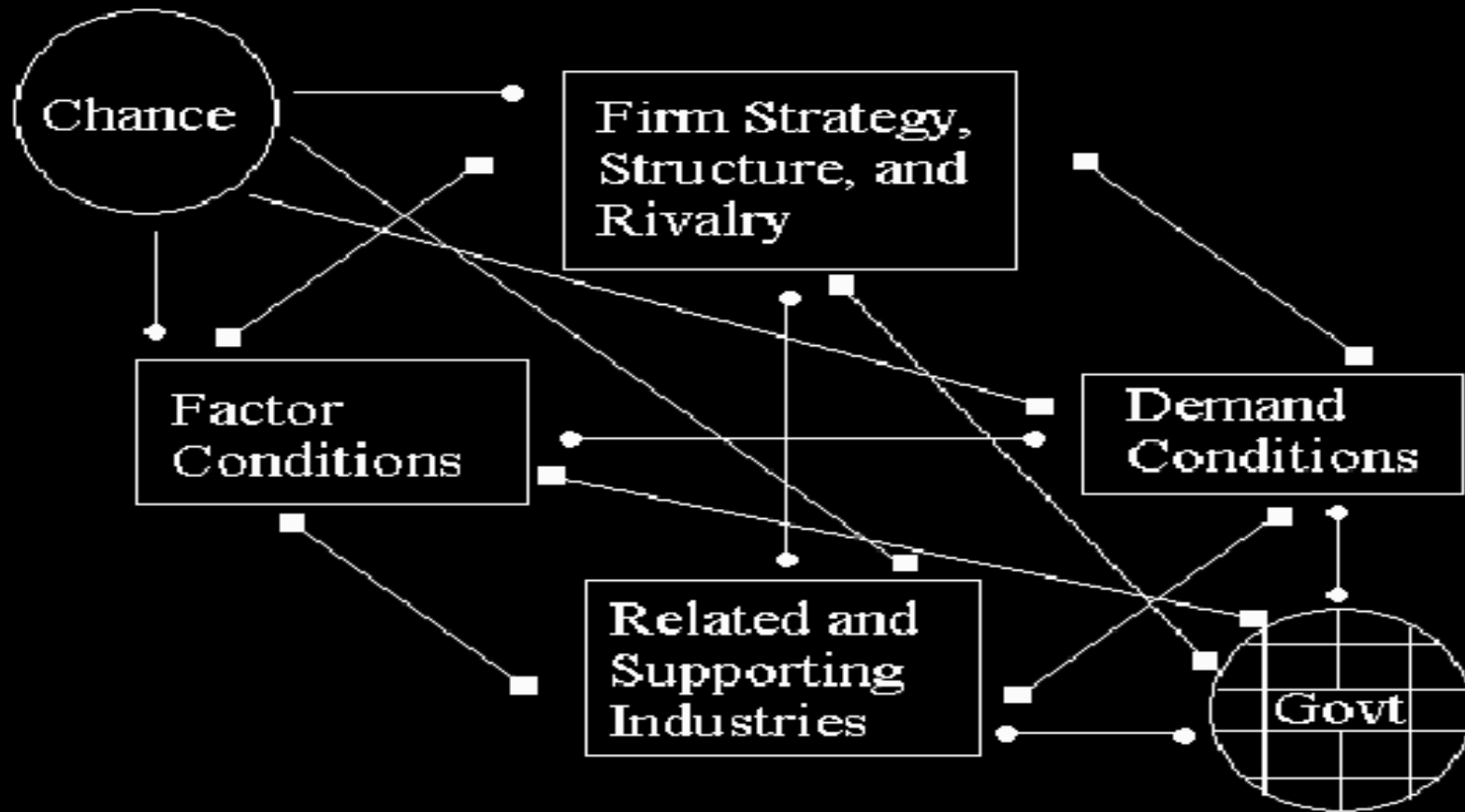
Channel Value
Chains
(Distributors or
Retailers)



Buyer Value
Chains

The Value System, Porter (1990)

Determinants of Competitive Advantage



"Diamond of Advantage", Porter (1990)

Economic Clusters: Factor Conditions

- Human resources: quantity, skills and cost
- Physical resources: abundance, quality, accessibility and cost
- Knowledge resources: stock of scientific, technical and market knowledge
- Capital resources: sources, amount and cost
- Infrastructure: type, quality, and user cost of transportation, communications, financial, healthcare

Cluster-based economic development

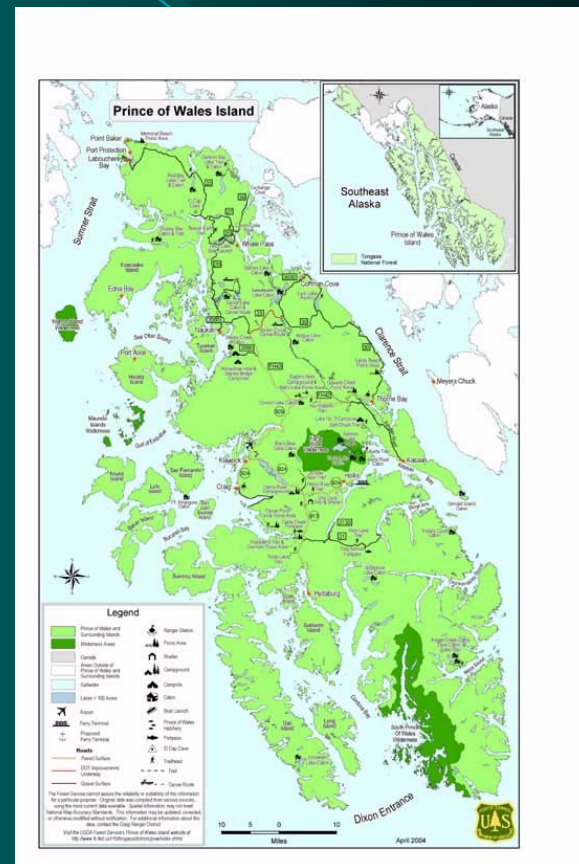
- Strongly benefit National Forest embedded and neighboring communities by explicitly influencing their determinants of microeconomic productivity and competitiveness, and clearly identifying the role of the National Forest in their microeconomic value chain and value system

National Forest-based Cluster Firms: “Healthy Communities in Healthy Forests”

- Upgrade and diversify the economic environment, institutions and policies of National Forests
- Satisfy multiple uses of National Forests
- Facilitate equity/bond participation in the local economy by residents and nonresidents
- Generate “branding” opportunities

Case Study: TNF Wood Products Cluster, Prince Of Wales Island

- A cluster of competitive sawmills of different capacities that could operate in a complementary manner with forward & backward linkages
- A technology center, the KWTC, providing a laboratory for testing innovative products
- Potential private sector leadership from the Prince Of Wales Chamber of Commerce Forest Products Task Force
- Existing transportation infrastructure linking mills on Prince Of Wales Island and, in 2006, additional mills in Petersburg and Wrangell



Case Study: Prince Of Wales' Heceta Island Wildlife Restoration-Young Growth Program

- Explicitly fusing restoration effort with community microeconomic enhancement
 - The biggest bang for your buck
- Raw material for Wood Products Cluster
 - House logs + accessories from Second Growth
 - Branding opportunity (e.g. wildlife restoration)
- Data sources for cluster research
 - MBA student: scope of work

Case Study: Scope of Work

- Data collection
 - Map out sector, size and impact of sector, linkages within sector, resource assessment, available tools (business dev., marketing, financing, etc.)
- S.W.O.T. analysis
 - Strengths, weaknesses, opportunities, threats
- Identify common needs
 - Policy/advocacy, outreach, market research, R&D, workforce needs, other information needs
- Develop implementation plans
 - Most-needed and “do-able” projects
 - Short, medium, long-term
 - Identify resources and partners for each role

Implementation of National Forest Microeconomic Upgrades

- Establish a PNW Economic Clusters team
- Analyze and improve the determinants of competitive advantage of National Forest-based urban and rural communities
- Think as a competitive firm
- Incorporate the dynamic interdependencies of the “determinants of advantage” into the factor supplier function of the National Forest

National Forest-based Cluster Firms

