



Sloan 2004 Annual Conference

**Varieties of Vertical Disintegration:
The Global Trend Toward Heterogeneous Supply Relations
and the Reproduction of Difference in US and German
Manufacturing**

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Session 2, Part I Track E**

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Research

- AMP
- Component producers and restructuring of supply chains
- Automobiles, Construction Machines, Ag Equipment, Industrial Machinery, Electrical Engineering
- US and Germany

Argument

- **Supplier -- customer relations in manufacturing becoming more heterogeneous**
 - ✓ **Broad spectrum of types of relations**
 - ✓ **Sustained Contingent Collaboration as modal relation**

Two Steps

- Changing dynamics in the purchasing strategies of large manufacturers.
- Types of emerging OEM-supplier relations

Changing OEM purchasing dynamics

- Vertical disintegration-- a secular trend
 - ✓ In current competitive environment, internal capabilities over taxed
 - ✓ OEM's focus on *core competences*
 - ✓ Take rest from suppliers

New Demands/Benchmarking

- **New demands on suppliers**
 - ✓ **Provide know how**
 - ✓ **Produce at very high quality levels**
 - ✓ **Provide variety of services for customer (logistics; sub-assembly)**
 - ✓ **Constant cost reduction**

- **Constant benchmarking (terrain searching)**
 - ✓ **Survey the supply base in order to determine what can be gained from available pools of expertise**

Contradictory dynamics

■ Paradoxical Situation

- ✓ OEMs *more reliant on suppliers*
- ✓ **AND** *more demanding*
- ✓ **AND** *interested in surveying (and contracting with) supplier competitors*

■ Creates pressure for supplier concentration AND checks it

Disintegrating trend; but no uniformity

- OEM sourcing practices are not uniform.
 - ✓ Piecemeal disintegration--uncertainty about “internal” capabilities of OEM -- same customer not always the same customer
 - ✓ Retain some internal production capacity in non core areas to enhance own capacity to collaborate
 - ✓ Aggregate goals, individual contracts and contracting over-time
- Adds to complexity and ambiguity in supplier markets
- Multiple and changing strategic calculations in play

Types of emerging OEM-supplier relations

- Survey of types described in the literature + one new one
- Scale(s):
 - ✓ Division of labor between design and production
 - Separation <---> integration
 - ✓ Division of roles that customers and suppliers play in the relationship over time.
 - Designer, producer, designer-producer
 - Over time
- Not a deductive theory of subcontracting; an organization of the empirical literature and argument about modality

4 traditional types

- **Arms-length/Spot Market relation**
 - ✓ **Supplier production/customer design**
 - ✓ **No collaboration**
 - ✓ **Capacity sub-contracting**
- **Autocratic or Captive Supplier relation**
 - ✓ **Supplier design and production/customer design and production**
 - ✓ **Non overlapping competences**
 - ✓ **Bilateral relation**
- **Contract Manufacturing**
 - ✓ **Supplier production/customer design**
 - ✓ **Collaboration**
 - ✓ **Electronics; Modularity in Autos?**
- **Collaborative Manufacturing**
 - ✓ **Supplier design and production/customer design and production**
 - ✓ **Non overlapping competences**
 - ✓ **Multiple relations**

Our fifth type

- **Sustained Contingent Collaboration**
 - ✓ **Only exists over time**
 - ✓ **Supplier/customer design and production**
 - ✓ **Overlapping competences**
 - ✓ **Role ambiguity**

First 4 different than #5

■ First four types

- ✓ Always supplier production;
- ✓ Always clear role divisions between customer and supplier over time;
- ✓ Variation in supplier design and customer production contributions

■ Fifth type

- ✓ No stable division of labor between design and production over time
- ✓ No clear role division between customer and supplier over time
- ✓ Role ambiguity

SCC the modal relation

- All types can be found in current environment (heterogeneity)
- Last three most historically distinctive
- Sustained contingent collaboration most stable and modal relation

Transitional state?

- Over-capacity and strategic uncertainty as dis-equilibrators
- Heterogeneity could give way to “best practice” equilibrium
- We doubt it

Endogenous drivers for SCC

- Permanent innovation and permanent cost reduction linked
 - ✓ Not an effect of over-capacity/ exacerbated by o-c
 - ✓ Internal reallocation/difficult choices

- Collaboration is costly:
 - ✓ Opportunity costs (rewarding relationships not had)
 - ✓ Search

- Complexity produces variety
 - ✓ Aggregate goals
 - ✓ Individual contracts

- Other historically distinctive types have tendency to dissolve into sustained contingent collaboration

Conclusions

- OEM purchasing strategies not uniform/ Multiple and changing strategic calculations in play
- Types of emerging OEM-supplier relations--SCC
Modal type
- Could be permanent condition of heterogeneity
- Paper also looks at vertical disintegration & SCC in national context.