Interorganizational Governance Value Creation: The Role of Information Visibility and Flexibility in Supply Chains


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Agenda

♦ The DS paper
  - Introduction
  - Theoretical Background
  - Research Model
  - Methodology
  - Results
  - Conclusion

♦ Effective strategy for your research

♦ Q & A
Introduction

- Increasing demand diversity and environmental uncertainty
  - new practices based on IT to deliver better products/services to customers
  - Interorganizational relationship (IOR) management in supply chains
- How to generate interorganizational governance value is essential for supply chain partners when seeking advantages from interfirm collaboration.
  - IOR value creators: Information visibility, flexibility
Research question

♦ What kinds of governance mechanisms can create value based on both effectiveness and efficiency in supply chain context?
♦ What are the impacts of governance mechanisms on supply chain value creators, i.e., information visibility and supply chain flexibility?
Interorganizational governance in supply chains

- Interfirm relationships have been analyzed under transaction cost economics that views the relationships as governance structures based on the level of transaction cost.
  - The emphasis of research in TCE shifts from markets and hierarchies to hybrid forms
  - To employ control mechanisms against opportunistic behaviors for safeguarding specific investment in transactions

- Interorganizational relationships can be a source of competitive advantage.
  - Increasing the collaborative aspects of governance can enhance the ability to adapt to uncertain environments.
Supply chain value creation

♦ Interorganizational relationship: control or collaboration?
  - Transaction cost economics (cost efficiency)
  - Resource-based perspectives (value creation)

♦ IOR value creation
  - Governance mechanisms: relational governance and virtual integration
  - Supply chain value creators: information visibility and supply chain flexibility
Relational Governance

- The extent to which supply chain partners use mechanisms such as relational norms and joint actions to maintain their relationship based on collaborative goals.
- Mechanisms like trust, commitment, coordination and joint problem solving constitute a safeguard against exploitative use of transaction-specific assets.
- Trust and commitment to the continuity of relationship can reduce uncertainty and monitoring effort, thus providing material incentives for collaboration.
Virtual Integration

- The degree of linkage between manufacturer and its suppliers through information technology (IT)
  - The substitution of ownership with partnership to integrate a smaller set of suppliers through information technology (IT) (Clemons et al., 1993)
  - Collaborative operation execution and collaborative process planning and control

- IT can reduce transaction cost and mitigate the potential for opportunism
  - Lowering information asymmetry
  - Providing effective monitoring capabilities.

- A credible commitment
Information Visibility and Supply Chain Benefits (1/2)

- **Information Processing Perspective**
  - Increasing the capacity of information processing and reducing uncertainty.
  - Information sharing models - bullwhip effect

- **Transaction Cost Perspective**
  - Reducing transaction cost and mitigating the potential for opportunism

- **Coordination/Integration Perspective**
  - Integrating supply chain activities
♦ **Learning Perspective**
  - Facilitating interorganizational learning and then quickly responding to changing environment.

♦ **Resource-based Perspective**
  - Information visibility combining with other complementary interorganizational resources may create valuable, scarce, and difficult to implement resources as the potential for competitive advantage.
The loosely-coupled supply chain system
- Few companies can rely solely on themselves to develop the required capabilities for rapid adaptation.
- To realize effective independent reactions and keep disturbances local
- Local adaptations of the manufacturer and suppliers are easier as autonomy and rich local knowledge allow experimentation and preserve independent environment sensing mechanisms (Orton and Weick, 1990)
Supply chain flexibility and Supply Chain Benefits (2/2)

♦ Flexibility is the most important capability against environmental uncertainty
  - How timely the manufacturer can react to new market conditions

♦ With greater flexibility, supply chain members can redesign the chain structure to make the resources in the chain fully explored to increase their adaptability.

♦ With the capability to quickly respond to environment turbulence, firms can take a better strategic position to serve customers and gain competitive advantage.
Research Model

Interorganizational Governance
- Relational Governance
- Virtual Integration

Value Creators
- Information Visibility
- Flexibility

H1~H4
H5
Data Collection

♦ Mail survey was distributed to the operation managers of 980 manufacturing firms
♦ Among the 980 informants, 153 returned the questionnaire after one call-backs. 150 (15.3%) was valid for the use of data analysis.
PLS Results for Research Model

- * p<0.05
- Numbers within () are weights.
Conclusion

♦ Hybrid governance with both control and collaboration mechanisms can gain the valuable interorganizational capability, then creating better performance.
  - Both relational governance and virtual integration have significant and positive impacts on information visibility.
  - Relational governance is positively related to supply chain offering flexibility.
♦ Value creation through increasing visibility in SCM
♦ The influence of virtual integration on flexibility is mediated by information visibility.
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Q & A