

Vertical Integration and the Theory of the Firm

A Review of Theoretical and Empirical Literature

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Outline

Theory and Constructs

- Theory

- Constructs

Empirical Studies on Vertical Integration

- Requirements for Empirical Research

- Early Empirical Work

- Recent Empirical Work

Contributions and Further Research

- Contributions

- Further Research

Summary

New Institutional Economics

"New Institutional Economics does not consist primarily of giving new answers to traditional questions of economics - resource allocation and degree of utilization. Rather, it consists of answering new questions, why economic institutions have emerged the way they did and not otherwise..."

Kenneth Arrow

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Transaction Cost Economics

Assumptions and Constructs

- Behavioral Assumptions

(Williamson, 1988)

Transaction Cost Economics

Assumptions and Constructs

- Behavioral Assumptions (Bounded Rationality, Opportunism)

(Williamson, 1988)

Transaction Cost Economics

Assumptions and Constructs

- Behavioral Assumptions (Bounded Rationality, Opportunism)
- Dimensionalizing

(Williamson, 1988)

Transaction Cost Economics

Assumptions and Constructs

- Behavioral Assumptions (Bounded Rationality, Opportunism)
- Dimensionalizing (Uncertainty, Frequency, Asset Specificity)

(Williamson, 1988)

Transaction Cost Economics

Assumptions and Constructs

- Behavioral Assumptions (Bounded Rationality, Opportunism)
- Dimensionalizing (Uncertainty, Frequency, Asset Specificity)
- Process

(Williamson, 1988)

Core Tenets of Transaction Cost Economics

- *As asset specificity increases, the transaction costs associated with market governance increase*

David and Han (2004)

Core Tenets of Transaction Cost Economics

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- *As asset specificity increases, hybrids and hierarchies become preferred over markets; at high levels of asset specificity, hierarchy becomes the preferred governance form*

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- *As asset specificity increases, hybrids and hierarchies become preferred over markets; at high levels of asset specificity, hierarchy becomes the preferred governance form*
- *When asset specificity is present to a nontrivial degree, uncertainty raises the transaction costs associated with market governance*

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Core Tenets of Transaction Cost Economics

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- *As asset specificity increases, hybrids and hierarchies become preferred over markets; at high levels of asset specificity, hierarchy becomes the preferred governance form*
- *When asset specificity is present to a nontrivial degree, uncertainty raises the transaction costs associated with market governance*
- *When asset specificity is present to a nontrivial degree, increasing uncertainty renders markets preferable to hybrids, and hierarchies preferable to both hybrids and markets*

David and Han (2004)

Core Tenets of Transaction Cost Economics

- *When both asset specificity and uncertainty are high, hierarchy is the most cost-effective governance mode*

David and Han (2004)

Core Tenets of Transaction Cost Economics

- *When both asset specificity and uncertainty are high, hierarchy is the most cost-effective governance mode*
- *Governance modes that are aligned with transaction characteristics should display performance advantages over other modes; for example, when both asset specificity and uncertainty are high, hierarchy should display performance advantages over markets and hybrids*

David and Han (2004)

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Relationship-Specific Investments

- Relationship-Specific Investments and Incomplete Contracts (Klein et al., 1978)

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- Vertical Relationship between Firms (Williamson, 1979)

Relationship-Specific Investments

- Relationship-Specific Investments and Incomplete Contracts (Klein et al., 1978)
- Vertical Relationship between Firms (Williamson, 1979)
- Mapping degree of Asset Specificity to Governance Structure (Williamson, 1979)

The Vertical Integrating Decision

- Forward Integration into Retailing
- Backward Integration into Input Production

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Laying the Groundwork for Empirical Research

- Clear structural relationship between a set of dependent variables and independent variables
- Variables need to be measured

Variables

- Dependent Variable: Nature of Organization

Variables

- Dependent Variable: Nature of Organization (Spot Market, Long-term Contracts, Vertical Integration)

Variables

- Dependent Variable: Nature of Organization (Spot Market, Long-term Contracts, Vertical Integration)
- Dependent Variable: Asset Specificity, Uncertainty, Frequency

Variables

- Dependent Variable: Nature of Organization (Spot Market, Long-term Contracts, Vertical Integration)
- Dependent Variable: Asset Specificity, Uncertainty, Frequency (a measure of asset specificity as the primary independent variable)

Variables

- Dependent Variable: Nature of Organization (Spot Market, Long-term Contracts, Vertical Integration)
- Dependent Variable: Asset Specificity, Uncertainty, Frequency (a measure of asset specificity as the primary independent variable)
- Other Moderating Variables:

Variables

- Dependent Variable: Nature of Organization (Spot Market, Long-term Contracts, Vertical Integration)
- Dependent Variable: Asset Specificity, Uncertainty, Frequency (a measure of asset specificity as the primary independent variable)
- Other Moderating Variables: (internal organization costs, economies of scale, experience and regulations)

Types of Asset-Specific Investments

- Site Specificity

Williamson (1983)

Types of Asset-Specific Investments

- Site Specificity
- Physical Asset Specificity

Williamson (1983)

Types of Asset-Specific Investments

- Site Specificity
- Physical Asset Specificity
- Human Asset Specificity

Williamson (1983)

Types of Asset-Specific Investments

- Site Specificity
- Physical Asset Specificity
- Human Asset Specificity
- Dedicated Assets

Williamson (1983)

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Early Empirical Work

- (Monteverde and Teece, 1982) Automotive Components, Ford, GM, Human Asset Specificity

Early Empirical Work

- (Monteverde and Teece, 1982) Automotive Components, Ford, GM, Human Asset Specificity
- (Masten, 1984) Aerospace Components, Make or Buy

Early Empirical Work

- (Monteverde and Teece, 1982) Automotive Components, Ford, GM, Human Asset Specificity
- (Masten, 1984) Aerospace Components, Make or Buy
- (Joskow, 1985) Site specificity in Electric Utilities Integrating into Coal Production

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Recent Empirical Work

- (Nickerson and Silverman, 2003) TCE + Process in for-hire trucking industry

Recent Empirical Work

- (Nickerson and Silverman, 2003) TCE + Process in for-hire trucking industry
- (Novak and Stern, 2009) Interdependence of Vertical Integration decisions in luxury automobile market

Recent Empirical Work

- (Nickerson and Silverman, 2003) TCE + Process in for-hire trucking industry
- (Novak and Stern, 2009) Interdependence of Vertical Integration decisions in luxury automobile market
- (David and Han, 2004) Asset Specificity strongly supported in empirical research

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Theories of the Firm and Vertical Integration

- Predictive Ability

Theories of the Firm and Vertical Integration

- Predictive Ability
- Explanatory Power

Theories of the Firm and Vertical Integration

- Predictive Ability
- Explanatory Power
- Assumptions

Theories of the Firm and Vertical Integration

- Predictive Ability
- Explanatory Power
- Assumptions
- Methodological Implications

Theories of the Firm and Vertical Integration

- Predictive Ability
- Explanatory Power
- Assumptions
- Methodological Implications
- Resilience in the presence of other theories

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Opportunities for Further Empirical Work

- Uncertainty has been loosely interpreted
- Performance measures have received little scrutiny
- Self selection bias in tests of the effects of governance
- Survivor bias in tests of the governance-asset specificity relationship

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- Reviewed Theoretical Underpinnings of Transaction Cost Economics

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- Application of Transaction Cost Economics to Vertical Integration

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- Early and Recent Empirical Studies on Vertical Integration

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- Reviewed Theoretical Underpinnings of Transaction Cost Economics
- Application of Transaction Cost Economics to Vertical Integration
- Early and Recent Empirical Studies on Vertical Integration
- Opportunities for Further Research

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