

Intermediaries in the Value Systems

406.306 Management Information Systems

Jonghun Park

jonghun@snu.ac.kr

Dept. of Industrial Engineering

Seoul National University

9/20/2007

Program

- Introduction
- Definition
- Transactional Intermediaries and Infomediaries
- Intermediary functions
- The Threatened Intermediary?



What is an Intermediary?

- Intermediary = something or somebody ‘in between’
- Economic perspective:
 - independent organization (with own profit and revenue objectives) that has a position between other independent organizations or individuals
 - Middleman position that will lead to exchange transactions



Effect of the Internet?

- The Death of the Middleman:
 - Tapscott ('96): Middleman functions are being eliminated through digital networks
- A more balanced view: Bill Gates ('95):
 - The Middleman must Add Value (in: Business @ the Speed of Thought)
 - “If you are a middleman, the Internet’s promise of cheaper prices and faster service can **disintermediate** you, eliminate your role of assisting the transaction between the producer and the consumer”



Definition

- A too broad definition
 - Any person or institution in the entire value system - from raw inputs to final consumption - is an intermediary
 - Even Dell must be considered an intermediary
- An Intermediary is:
 - An economic agent
 - that buys from suppliers in order to resell to customers or
 - that helps consumers and suppliers to meet and transact

Types of intermediaries

- transactional intermediaries
 - those who move, store, and deliver physical goods
- infomediaries
 - those who provide information and information services, usually relating to those physical goods and services
 - never own the products and services involved

Digital Goods and Physical Goods

- Porter (1999) made a distinction:
 - Physical goods industries
 - Industries that provide ‘the service or basic information itself’:
 - Stockbrokerage, market-making (auctions), information goods
 - The internet will lead to a transformational change
 - e.g. Forrester Research has predicted that the digital delivery of custom-printed books, textbooks and e-books will account for a total of 7.8 billion dollars by 2005, or 17.5% of the publishing industry’s revenues



Transaction Channels and Logistic Channels

- Transaction Channel
 - all **information** functions required to complete transaction (bring together sellers and buyers, ...after sale relationship management)
 - Effects of mass customization on information needs may result in **specialization**
- Logistic Channel:
 - movement, storage and delivery of **physical** products
 - opportunities for **economies of scale**



Value Added Roles

Different roles are mentioned (see: Bakos, 1998; Chircu and Kaufmann, 1999):

- Aggregation of information
- Facilitation of search
- Reduction of information asymmetries
- Matching buyers and sellers
- Trust provision

Value Added Roles

- pricing
 - intermediaries set prices according to demand and supply, coordinating and even stimulating transactions between suppliers
 - intermediaries manipulate price levels so that their markets clear at a lower or higher trade volume
- inventory holding
 - intermediaries stand ready to sell (inventory) and to buy (cash)
- transaction coordinating: search, negotiation
 - intermediaries coordinate transactions of buyers and sellers, reducing or even eliminating the uncertainty associated with making a perfect match
 - intermediaries deal with conflict in interests between buyers and sellers
 - solving problems of information asymmetry: sellers are not aware of all their buyers' characteristics, and vice versa
- performance monitoring
 - monitoring is delegated to intermediaries that supervise suppliers
 - e.g., building a new house



infomediaries services

- search / complexity services: simplify the searching process by providing information, guiding buyers to an informed choice
- matching services: e.g., agent technology
- content services: provides product content, such as independent evaluations, directory services
- community services: generating a certain stickiness
- informational services: including dynamic pricing, notification services, ...
- privacy protection services
- infrastructure services: facilities for conducting secure transactions via the internet



Examples of network-based intermediaries

- Facilitating product search:
 - Directories (www.startpagina.nl)
 - Search services (Yahoo, Google)
 - Malls
 - Publishers
 - Virtual resellers
- Forums, User Groups
- Financial Intermediaries
 - Payment systems (Paypal)
- Spot markets
- Intelligent Agents
 - A new intermediary service that buyers hire when in need of a particular good or service



Dynamics in the Value System

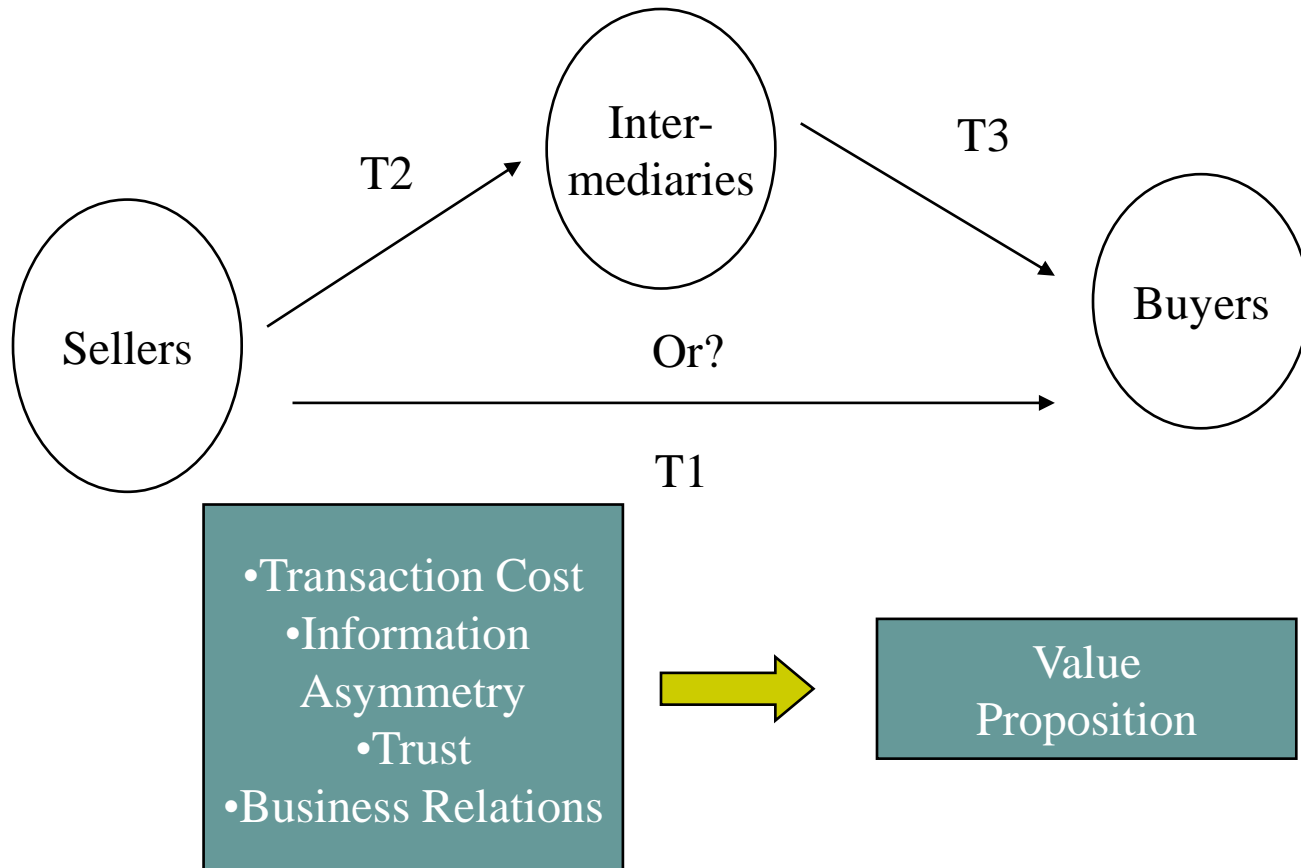
- Disintermediation:
 - ‘Middlemen functions between producers and consumers are being eliminated through digital networks’ (Don Tapscott 1996)
 - ‘If you’re a middleman, the Internet’s promise of cheaper prices and faster service can “disintermediate” you’ (Bill Gates 1995)
- Electronic Market Hypothesis: electronic markets arise, which will have **strong disintermediating effects**
 - because of lower search costs and matching costs, so reducing the needs for intermediaries
- Move to the Middle Hypothesis: use of ICT to build strong long-term relationships with a limited number of suppliers

disintermediation

- disintermediation
 - the displacement or elimination of market intermediaries, enabling direct trade with buyers and consumers without agents
 - often the result of high market transparency, in that buyers are aware of supply prices direct from the manufacturer
- scope of disintermediation is greater in the case of information products
- typical B2C supply chain after internet?
 - supplier, manufacturer, wholesaler, retailer, buyer -> supplier, manufacturer, buyer

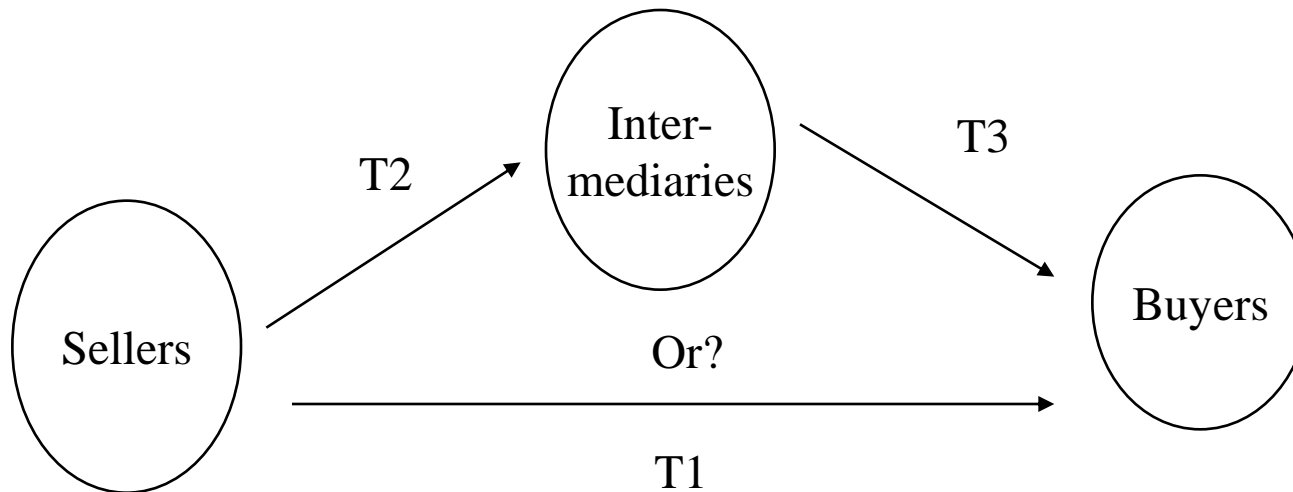
Is Intermediary Threatened?

- lower transaction costs using a direct electronic link will favor direct marketing over transactions via an intermediary
- Threatened Intermediaries Hypothesis (TIH): online consumers will interact directly with online suppliers and, hence prices will decrease owing to the disappearance of margins calculated by intermediaries



old scenario

- T_1, T_2, T_3 : pre-internet transaction costs
- T_1^*, T_2^*, T_3^* : after-internet transaction costs
- $T_1 > T_2 + T_3$
- $T_1^* = T_2^* = T_3^* = T^*$ (after the internet)
- therefore, $T_1^* < T_2^* + T_3^*$



flaws in disintermediation scenario

- the internet will make all transaction costs insignificant (becomes 0)
 - costs of transferring goods from producer to consumer are not likely to decrease dramatically => the availability of the internet will force all transaction costs to approach to non-zero minimum
 - it is not likely that all transaction costs will approach to T^*
- transactions are atomic, and not further decomposable into smaller units

possible impacts of internet on intermediaries

- Internet **reinforces existing direct market and intermediate structures** respectively which has not been acknowledged by the Threatened Intermediary Hypothesis

		Pre-Internet	
		$T1 < T2 + T3$	$T1 > T2 + T3$
Internet	$T'1 < T'2 + T'3$	Internet-Supplemented Direct Market [I] dell	
	$T'1 > T'2 + T'3$		amazon Internet-Supplemented Intermediaries [IV]



possible impacts of internet on intermediaries

- only one scenario supports the TIH (II)
- scenario III makes an internet based intermediary (cybermediary) more efficient than direct contacts: search, directory, community services, ...

		Pre-Internet	
		$T1 < T2 + T3$	$T1 > T2 + T3$
Internet	$T'1 < T'2 + T'3$	Internet-Supplemented Direct Market [I]	Threatened Intermediaries [II]
	$T'1 > T'2 + T'3$	Cybermediaries [III]	Internet-Supplemented Intermediaries [IV]

Threatened Intermediaries Hypothesis (TIH)

- the main fallacy of TIH is its interpretation of intermediation as a single service rather than a # of different services
 - intermediaries provide many functions that may be difficult for producers or consumers to replicate: personalization, risk absorption, inventory holding, product information aggregation, transaction aggregation, marketing, ...
- 3 services provided by intermediaries
 - inventory holding
 - reducing information asymmetry
 - gathering, organizing, and evaluating dispersed information
- subjective, social and Institutional factors affect channel structures:
 - Existing intermediaries have powerful relationships to end-customers
 - Intermediaries satisfy a number of customers' wants
 - Existing social relations influence patterns of economic exchanges



IDR-cycle

- Transformation of traditional industry structures by e-commerce
- Intermediation: intermediaries interject themselves among buyers and suppliers, and possibly among other intermediaries as well
- Disintermediation: established middlemen are pushed out of their market niche
- Reintermediation: intermediaries recapture their position by combining specialized assets with technological innovation
- Innovation is continuing process → IDR-cycle

(Source: Chircu and Kaufmann 1999)



competitive strategies for intermediaries

- partnering for application development
 - for risk management for the development of large and complex applications
- partnering for access
 - exclusive agreements with high-traffic websites (e.g., allblog.net)
 - easily imitated
- partnering for content
 - easily imitated
- technology licensing
 - e.g., amazon's APIs

