### **MIS 3537: Internet and Supply Chains**

### WEEK 3: ELECTRONIC MARKETPLACES



### LEARNING OBJECTIVES: What are Electronic Markets Like?

Understand the idea of an eMarketplace

Identify the critical success factors for an electronic marketplace

Key challenges in synchronizing supply chains using eMarketplaces





## MARKETPLACES — Where Trade Occurs

### Why do we need a marketplace at all?



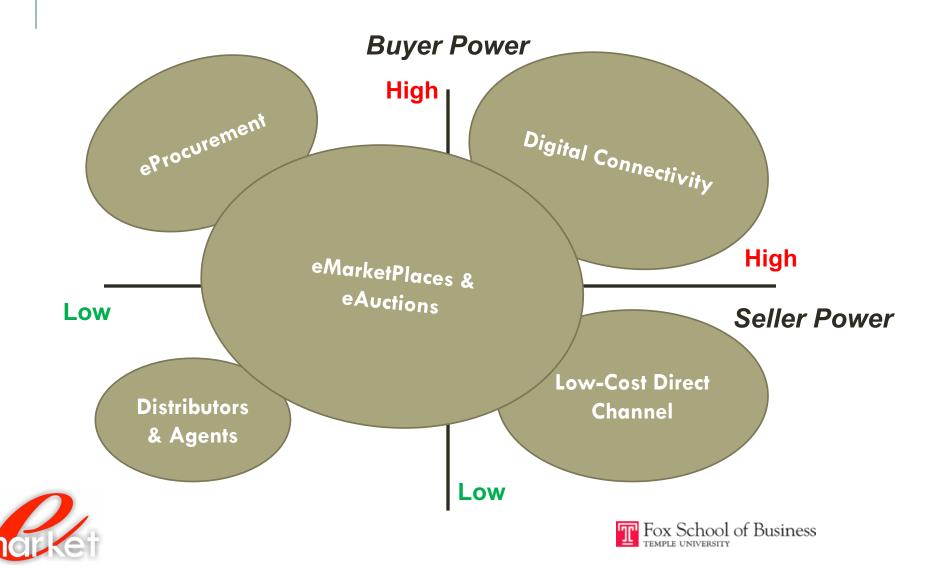
A marketplace is a common ground for buyers and sellers

Neither side has considerably more power than the other

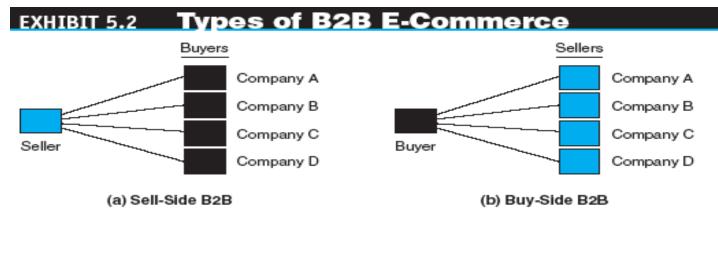


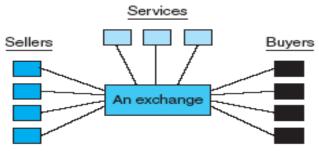


### MARKETPLACES — Who has the Power?

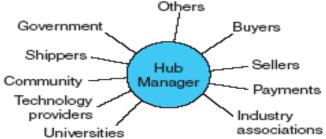


### Concepts, Characteristics, and Models of B2B EC





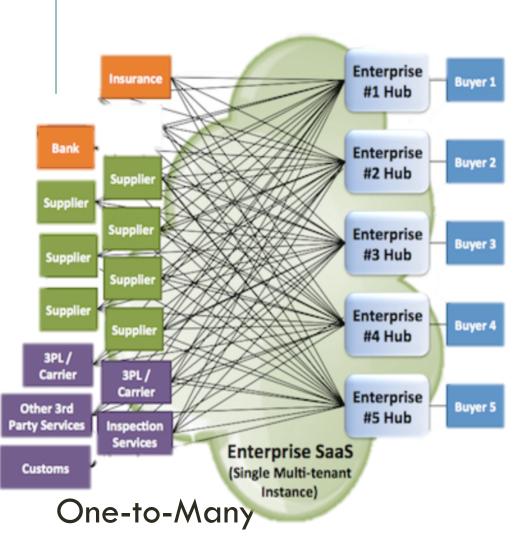
(c) Electronic Exchange



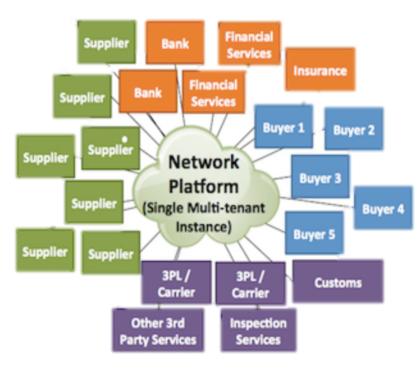
(d) Supply Chain Improvements and Collaborative Commerce



# COMPARISON



### Many-to-Many Network of all, eMarketplace



Buyer or Supplier Centric



# ELECTRONIC MARKETPLACES

Electronic marketplaces serve as **platforms** that connect organizations and transact in areas with little distinctive power in relationships

### Why a platform?

- A marketplace should allow for new entrants
- The more entities joining the marketplace, the more valuable it becomes (critical mass)





### **EVOLUTION OF ELECTRONIC MARKETPLACES**

### Stage 1

- Dotcom companies
- In the chemicals industry, a lot of new players eChemicals, Chemdex, CheMatch and – were born

### Stage 2

- The established players strike back
- Companies like Dow Chemical, Du Pont and BASF big, existing players – setup their own eMarketplace

The Chemical Compar

Fox School of Busines

# **EVOLUTION (CONTD.)**

### Stage 3

The best of both worlds meet

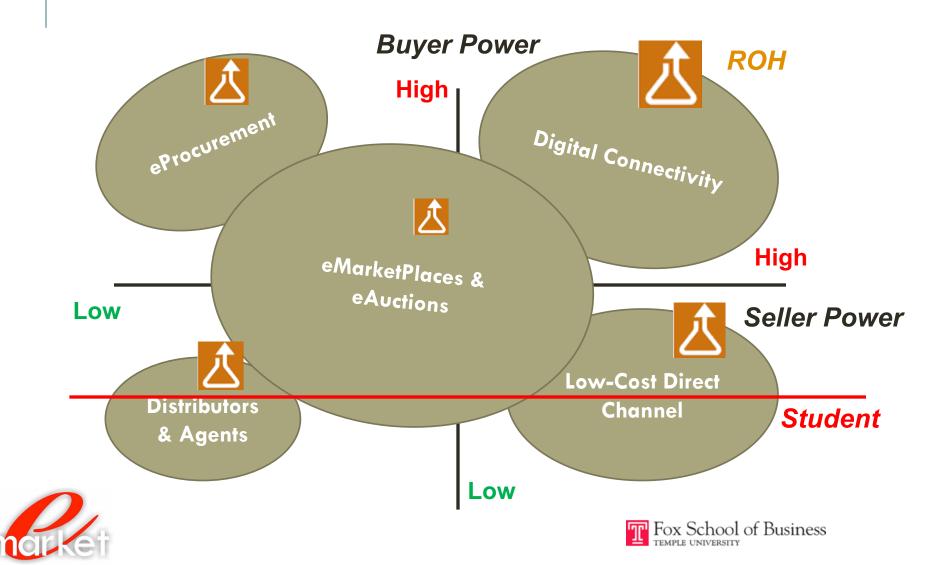
### ChemConnect<sup>®</sup>

The leading industry players partnered with

- Existing players took between 5 and 10% of the equity share
- Has become the established industry standard
- Other players eChemicals, CheMatch have been marginalized



### MARKETPLACES — Who has the Power?



### **OTHER INDUSTRIES**

A similar trend can be seen in other industries

E.g. In the retail industry, **amazon** growth and success has spurred existing retailers to setup efficient supply chain, powered by electronic marketplaces such as WorldWide Retail Exchange (WWRE) and GlobalNetXchange (GNX)



### **OTHER INDUSTRIES**

Automobile • Covisint – Ford, GM and DiamlerChrysler



Food & consumer-packaged goods • Transora – Unilever, P&G, Nestle, General Mills TRANSORA

Plastics • Omnexus – Dow, Du Pont, Bayer, Ticona
Connect • innovate • accelerate

Mining, minerals and metals • Quadrem – Alcoa, De Beers, Rio Tinto etc. QUADREM



### THREE TYPES OF EMARKETPLACES

### Vertical eMarketplaces

- The eMarketplace is focused on one industry, trade, profession (group os similar customers)
- e.g. vertical retail, chemicals, plastics

• Examples: ChemConnect ChemConnect Connect. Engage. Collaborate.



# **TYPES OF EMARKETPLACES**

### Horizontal eMarketplaces

Provides related services e.g. procurement

GRAINGER

- Driven by:
  - Geographical circumstances
  - Inter-industry activity
  - **Special Practice, Products**







# **TYPES OF EMARKETPLACES**

### **Branded** private marketplaces

OPENTEXT<sup>™</sup> | GXS<sup>™</sup>

- Really big organization can setup an exclusive eMarketplace
  - built its own: Global eXchange Services GXS one of the world's largest B2B eCommerce networks
- Spun off in 2002, acquired by OpenText in 2014
- accenture & verizon use to provide managed services to their customers





# LEARNING OBJECTIVES

Understand the idea of an eMarketplace

Critical success factors for eMarketplaces

Key challenges in synchronizing supply chains using eMarketplaces



# **CRITICAL SUCCESS FACTORS**

# Sustainable business models & realistic expectations

- During the dotcom boom, a lot of eMarketplace providers had high valuations because of future expectations
- As the industry consolidated, few providers remained in business and were profitable
- Long-term viability is critical
- Ability to form and sustain relationships



# **CRITICAL SUCCESS FACTORS**



### Rapidly build key capabilities

- A successful eMarketplace should become a one-stop shop
- Must provide a range of transactional and value-added services
- Breadth of services is a key success factor
- Services include security, workflow, reporting, fulfillment, billing and settlement, supplier management etc.



# **CRITICAL SUCCESS FACTORS**

Integration of activities with major stakeholders

- The platform should be flexible enough to accommodate diverse needs of stakeholders
- Degree of integration determines long-term success
- Onboarding: Getting companies to build the interfaces to participate in the eMarketplace





### KNOW THE RULES

# **CRITICAL SUCCESS FACTORS**

Management of regulatory relationships

- In 2000, MyAircraft, an eMarketplace consortium of
   Honeywell, UNITED & & 200 accused of price fixing
- The European Union ruled in favor of MyAircraft, declaring that it was just another business entity
- eMarketplaces across country and continental boundaries must comply with requisite regulations





## LEARNING OBJECTIVES

Understand the idea of an eMarketplace

Critical success factors for eMarketplaces

Supply chain synchronization – Challenges



# CHALLENGES



### Inter-marketplace competition

- Different industries have setup their own marketplaces
- Communication across these marketplaces is a challenge
  - Different business models, financial structures, technical standards
  - Different business processes / practices with different expectations





### CHALLENGES



### Managing high levels of complexity

- Each participant in an electronic marketplace brings his / her own:
  - Set of problems, values
  - Business processes / practices
- Integrating each participant properly into the marketplace is critical
- Juggling multiple business models, financial structures, technical standards and business practices





# CHALLENGES



- The eMarketplace provider has to make significant investments upfront
- While buyers and suppliers might profit, the provider might have to operate with low margins

Building and sustaining relationships are key challenges facing the provider

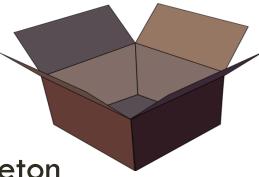






# EMERGING TRENDS

"eMarketplace in a box"



Single turnkey solution that offers a skeleton eMarketplace structure

Consists of a pre-selected suite of best-of-breed solutions







NEXT WEEK...

# wwt/ClearOrbit<sub>®</sub> Case

Beer game



Preparation

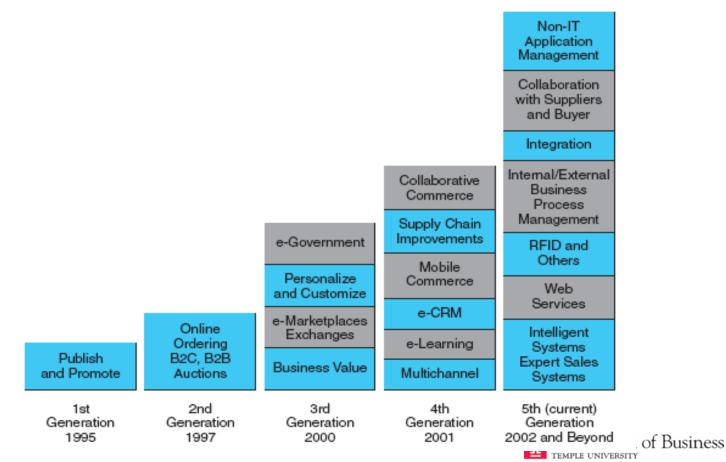


### EXTRA SLIDES



### Concepts, Characteristics, and Models of B2B EC

### EXHIBIT 5.1 Generations of B2B E-Commerce



5-28

### **OTHER INDUSTRIES**

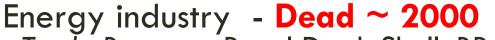
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Food & consumer-packaged goods • Transora – Unilever, P&G, Nestle, General Mills TRANSOR

Plastics • Omnexus – Dow, Du Pont, Bayer, Ticona Omnexus

Mining, minerals and metals • Quadrem – Alcoa, De Beers, Rio Tinto etc.

QUADREM



 Trade-Ranger – Royal Dutch Shell, BP, Conoco, Phillips, Statoil, Unocal, Tosco etc
 Trade-Ranger



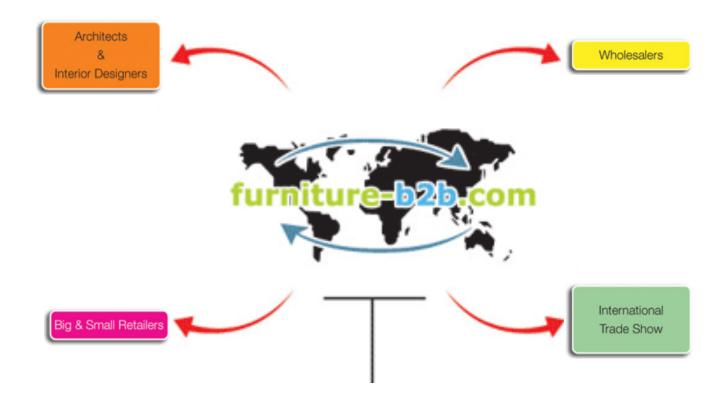
# A SYNCHRONIZED WORLD

Current eMarketplace solutions aim to synchronize supply chains

In the future, eMarketplaces might communicate among each other!

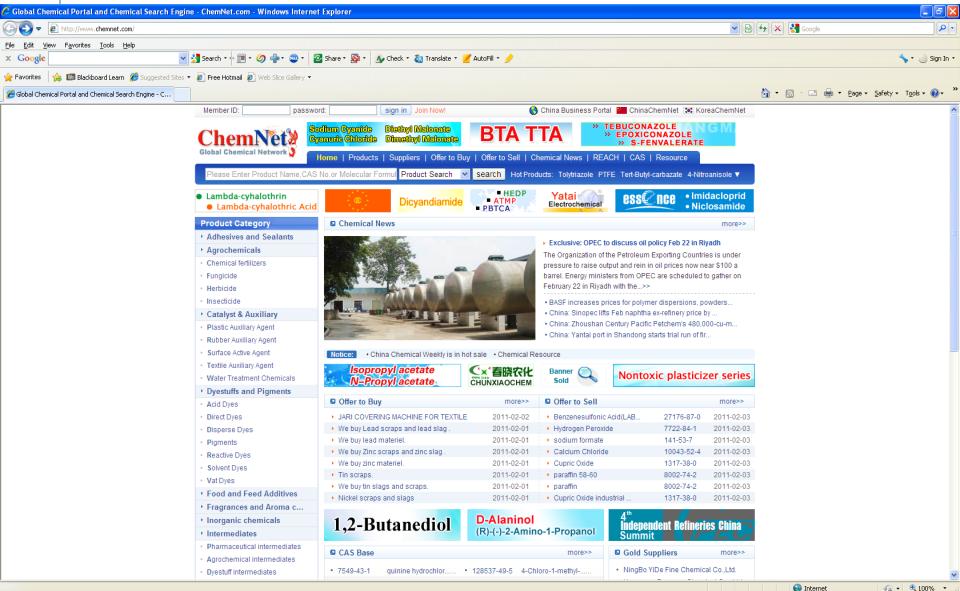


### FURNITURE





### CHEMICALS



### FOOD

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0 Buy Coca Cola 330ml cans	<ul> <li>crustaceans buyers</li> <li>snacks buyers</li> </ul>		
Posted on: 2011-01-10 from UK - South East of England Beverages, Spirits & Wine Aspire Trading	> tea buyers > beverages buyers > spirits buyers		
0 Buy Want to buy mineral water, canned food, mosquito nets, mosquito repellent	> wine buyers > cocoa buyers		
Member Posted on: 2011-01-17 from Nigeria - Abia Beverages, Spirits & Wine HWB Consultanting Firm	> food additives buyers > health food buyers		
<sup>0</sup> Buy Want to buy Natural Mineral Water, Fresh Tomatos, Potatos	regatables buyers     fruits buyers		
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