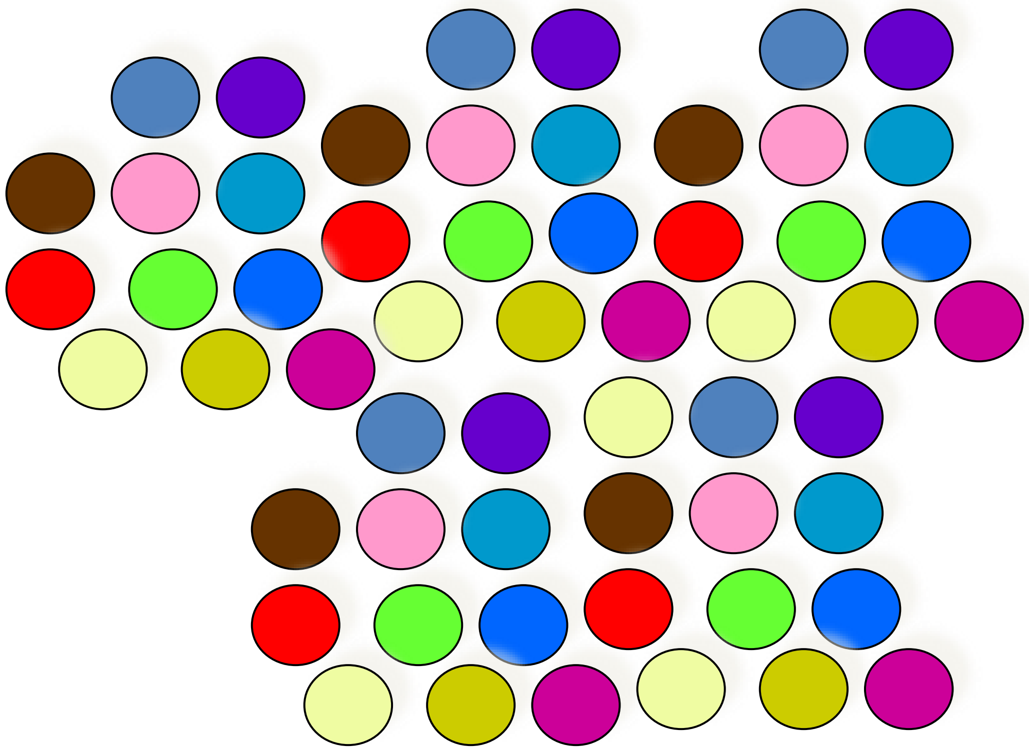
What to Make and What to Buy?

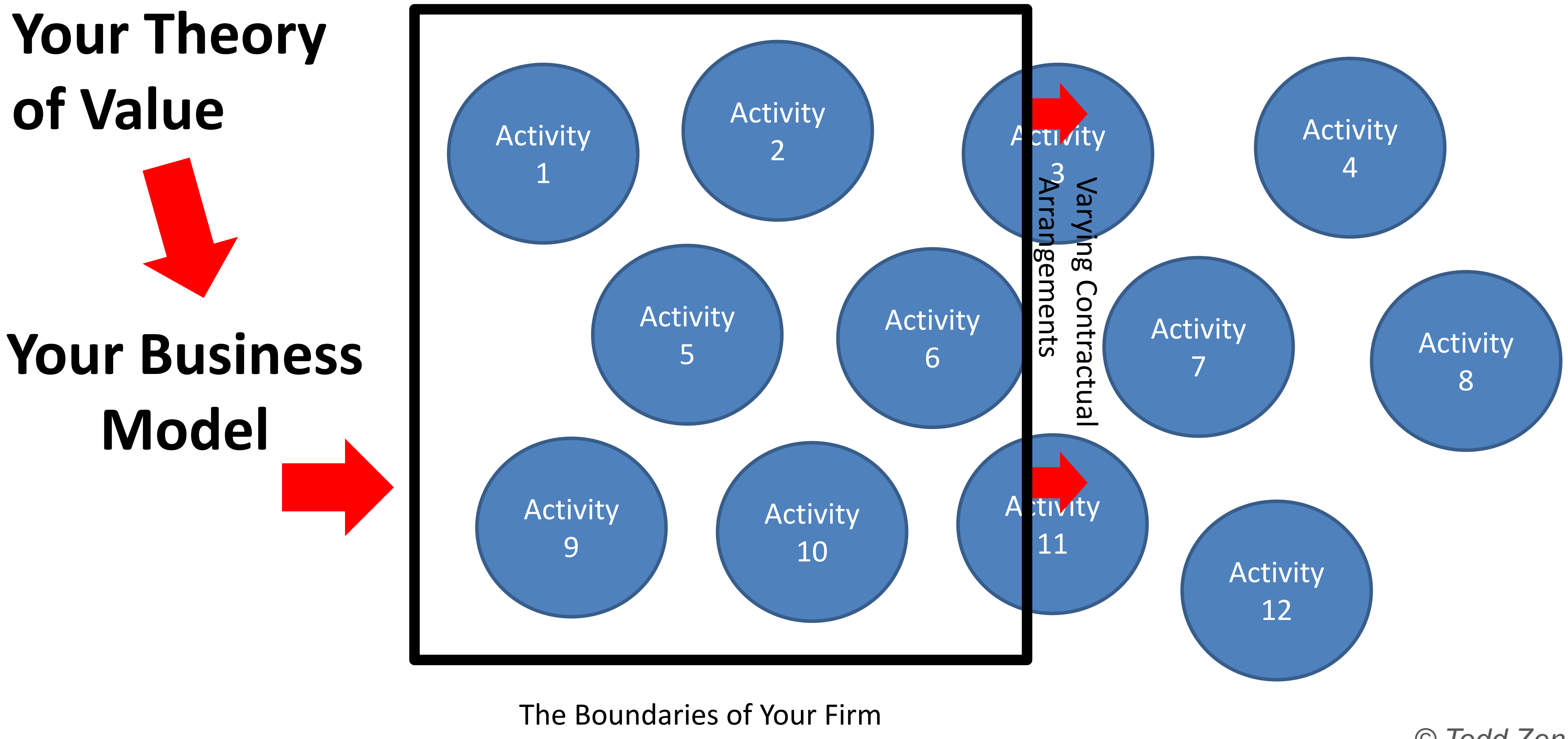
Professor Todd Zenger



Array of suppliers (internal or external)

Use corporate theory of sustained value creation to compose (and access) a bundle of complementary assets and supply relationships

Make or Buy


Your Theory
of Value
Your Business
Model
Activity
1
Activity
2
Activity
3
Activity
4
Activity
5
Activity
6
Activity
7
Activity
8
Activity
9
Activity
10
Activity
11
Activity
12
Varying Contractual
Arrangements
The Boundaries of Your Firm

Competing Voices

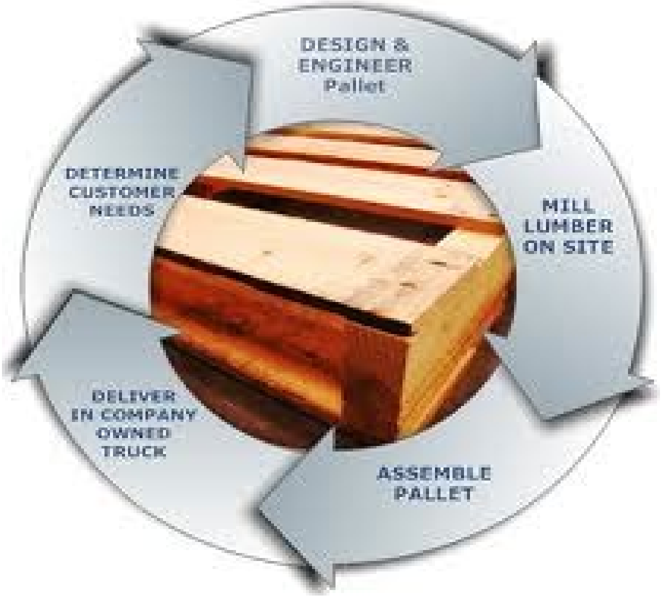
- Integrate and expand the firm

vs.

- Disintegrate and outsource

Our love of integration

- My observation after 30 years teaching and researching the topic: We generally have really bad intuition about when to make and when to buy.




THE SATURDAY EVENING
POST
SEPTEMBER 4, 1943 10¢
THE
NEBRASKA STORY
By Governor Dwight Griswold
WE SKIP-BOMB THE JAPS
By Charles A. Rawlings
Norman
Rockwell


THE SATURDAY
EVENING POST
5cts.
JANUARY 22, 1927
Richard Washburn Child—Joseph Hergesheimer—R. G. Kirk—Thomas Beer
Charles Brackett—Kenneth L. Roberts—Gilbert Seldes—Frederic R. Gruger

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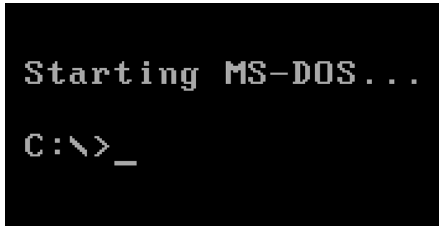
Saturday Evening Post






Trees → Logging → Paper Production → Printing → Magazine Publishing → Distribution

Our love of the market



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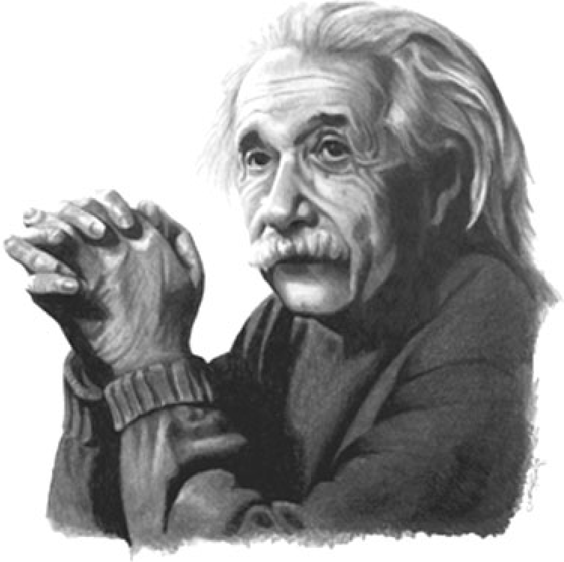
Beware of simplistic logic

- Not as simple as: outsource what you do poorly and integrate what you do well

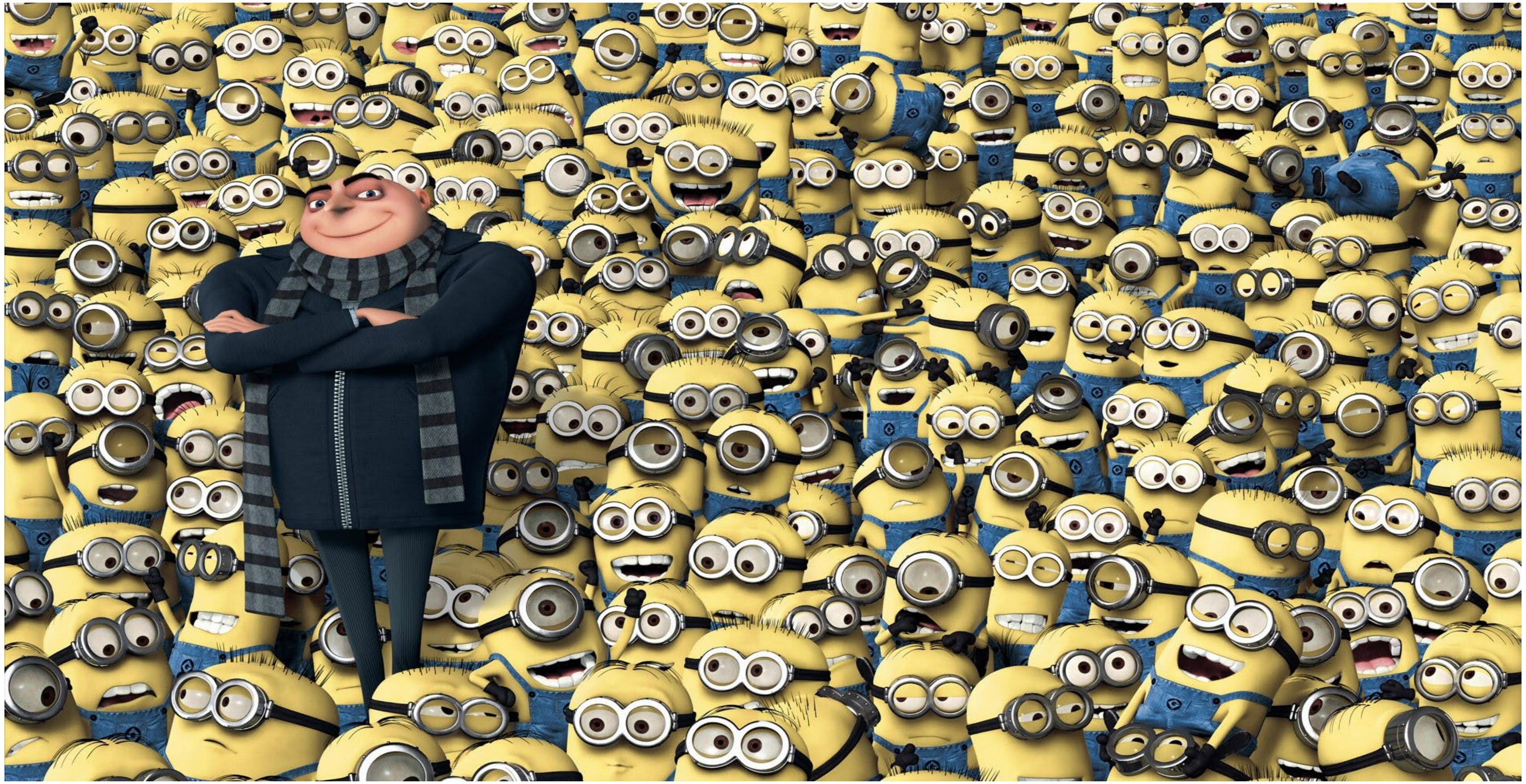
- You may need to insource activities that you currently have no capacity to perform. At the same time, you may want to outsource activities you actually do quite well.

Two Step Process

1. What composition of assets and activities do I propose to create? What assets and activities do I seek to combine or orchestrate and how must they be transformed?
2. What is the lowest cost approach (market or hierarchy) to generating the incentives required to compose what I envision?



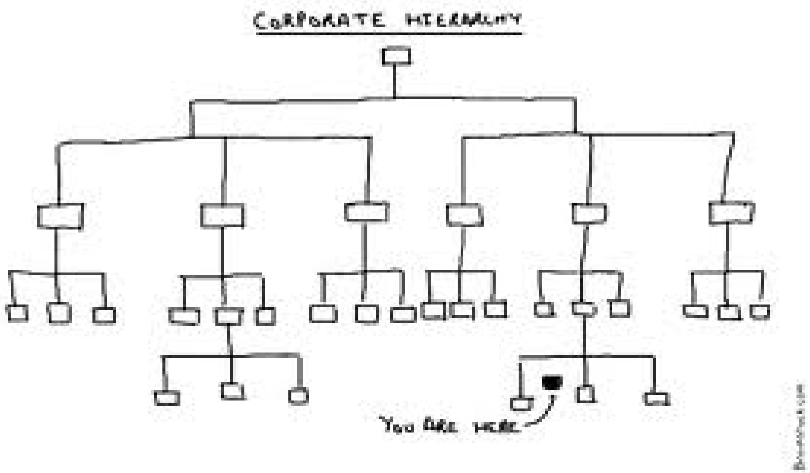
Deciding how to organize the minions



Not about "control" alone…

- Rather, its about deciding what type of control you need:

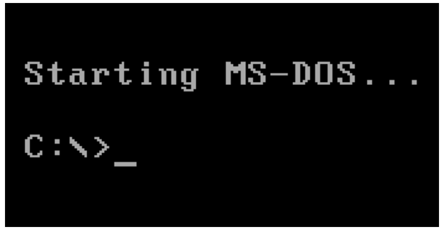
Markets



Markets induce "individuals to do…desirable things without having anyone tell them what to do."
--Hayek

Hierarchy

Theory reveals desired future state of assets and activities



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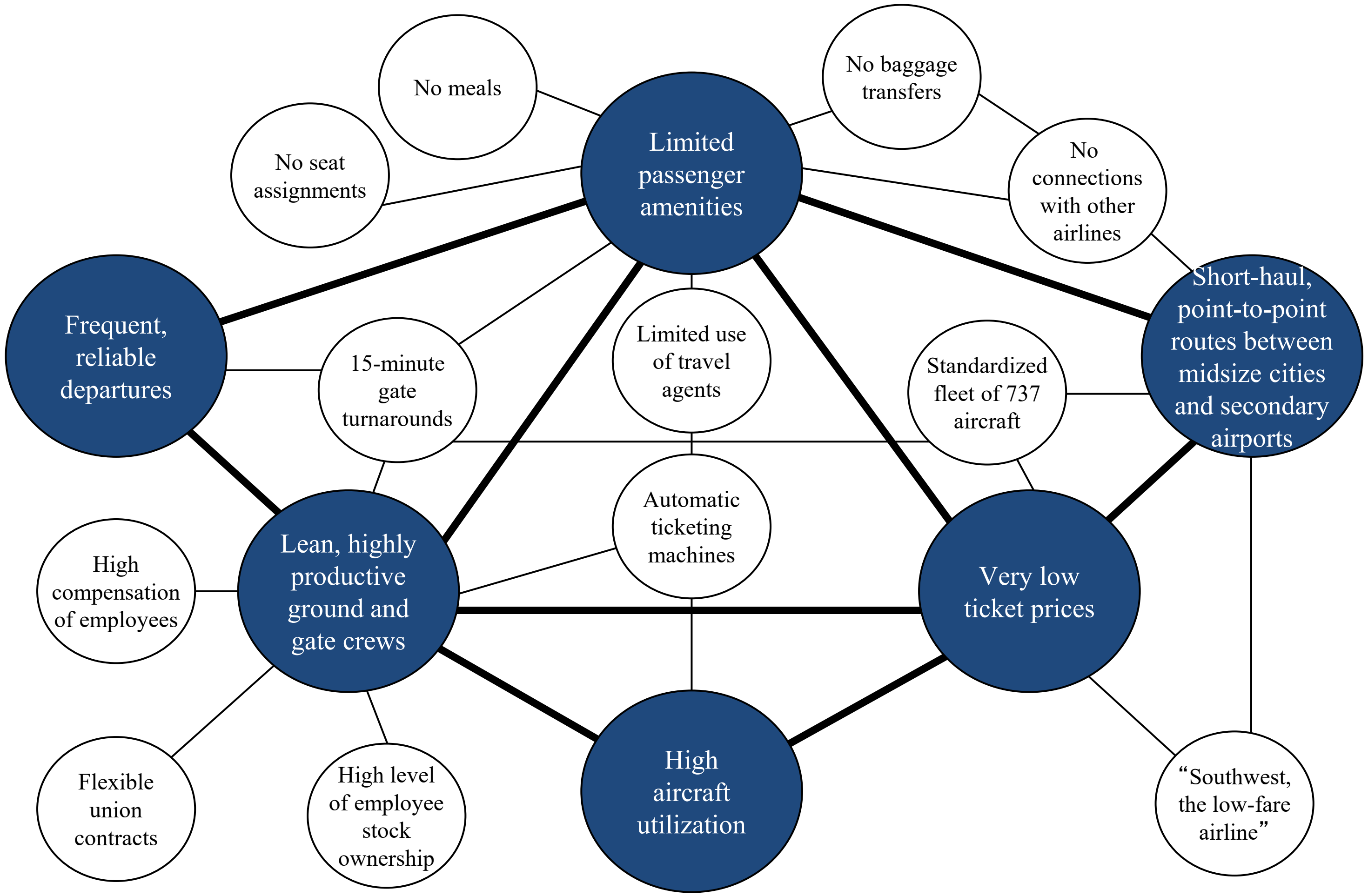
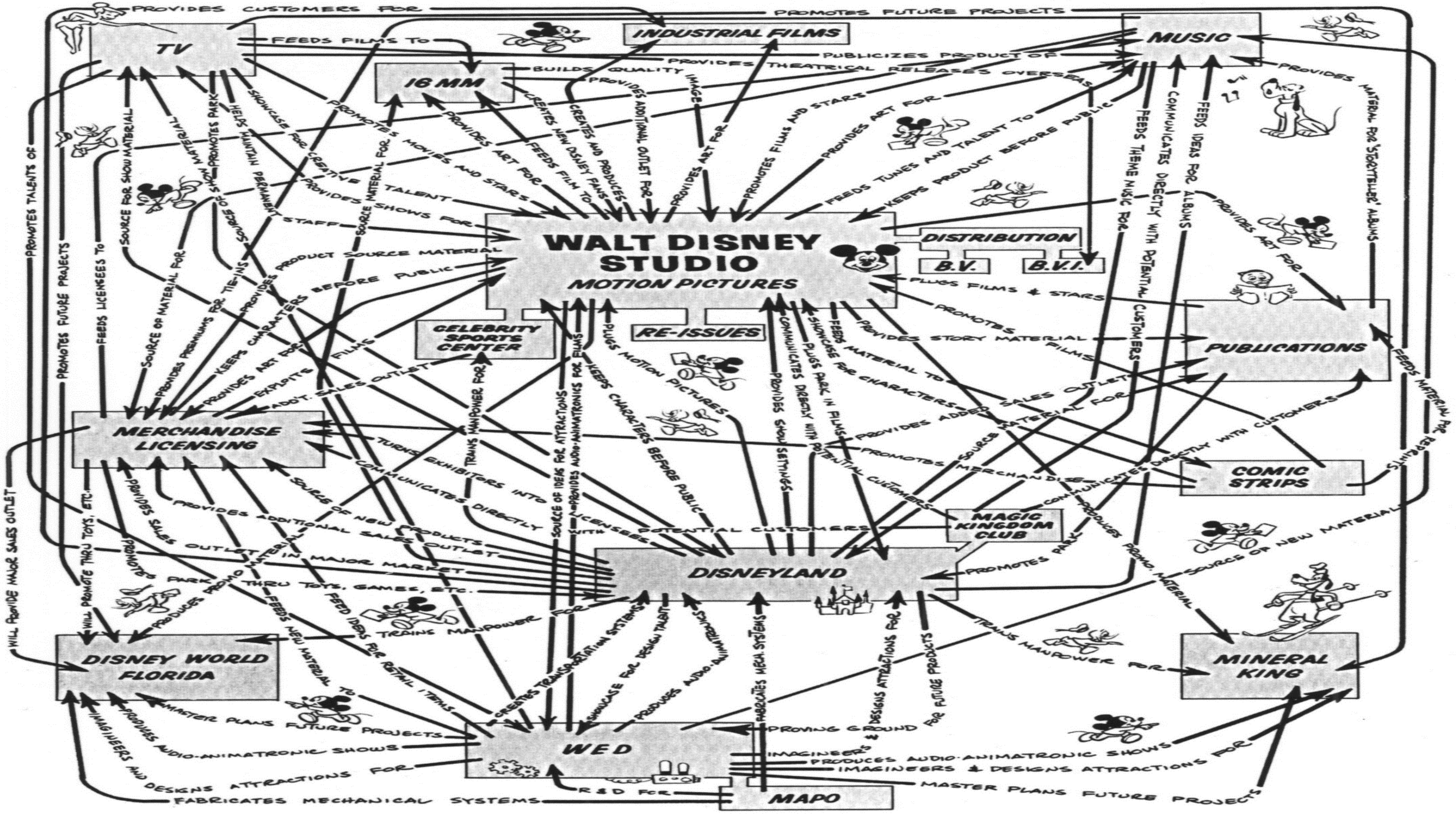
How do I create incentives to compose this?



Source: Michael E. Porter "What is Strategy"
Harvard Business Review, Nov-Dec 1966



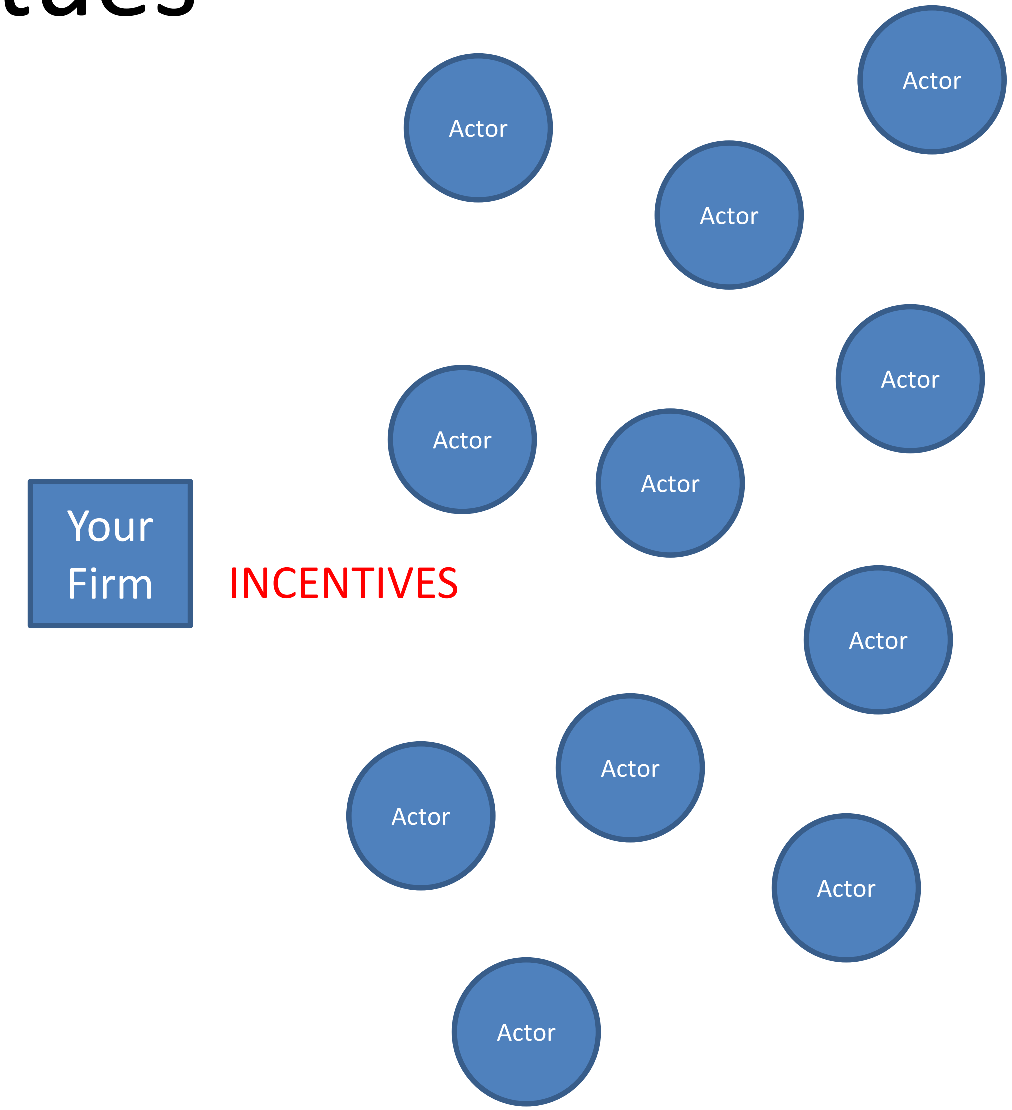
WALT DISNEY STUDIO
MOTION PICTURES
DISTRIBUTION
B.V.
B.V.I.
RE-ISSUES
CELEBRITY SPORTS CENTER
TV
16 MM
INDUSTRIAL FILMS
MUSIC
PUBLICATIONS
COMIC STRIPS
MERCHANDISE LICENSING
DISNEYLAND
MAGIC KINGDOM CLUB
DISNEY WORLD FLORIDA
MINERAL KING
WED
MAPO
PROVIDES CUSTOMERS FOR
PROMOTES FUTURE PROJECTS
FEEDS FILMS TO
PUBLICIZES PRODUCT OF
PROVIDES THEATRICAL RELEASES OVERSEAS
BUILDS QUALITY IMAGE
PROVIDES ADDITIONAL OUTLET FOR
CREATES AND PRODUCES
CREATES NEW DISNEY FANS
FEEDS FILM TO
PROVIDES ART FOR
PROMOTES MOVIES AND STARS
SHOWCASE FOR CREATIVE TALENT
HELPS MAINTAIN PERMANENT STAFF
PROVIDES SHOWS FOR
PROMOTES PARK
SOURCE OF SHOW MATERIAL
SOURCE FOR SHOW MATERIAL
SOURCE MATERIAL FOR
PROMOTES FILMS AND STARS
FEEDS TUNES AND TALENT TO
KEEPS PRODUCT BEFORE PUBLIC
FEEDS THEME MUSIC FOR
COMMUNICATES DIRECTLY WITH POTENTIAL CUSTOMERS
FEEDS IDEAS FOR ALBUMS
PROVIDES MATERIAL FOR "STORYTELLER" ALBUMS
PROVIDES ART FOR
PLUGS FILMS & STARS
PROMOTES
PROVIDES STORY MATERIAL
FILMS
FEEDS MATERIAL FOR REPRINTS
PROMOTES TALENTS OF
PROMOTES FUTURE PROJECTS
FEEDS LICENSEES TO
SOURCE OF MATERIAL FOR
PROVIDES PREMIUMS FOR TIE-INS
PROVIDES PRODUCT SOURCE MATERIAL
KEEPS CHARACTERS BEFORE PUBLIC
PROVIDES ART FOR
EXPLOITS FILMS
ADD'L SALES OUTLET
PLUGS MOTION PICTURES
KEEPS CHARACTERS BEFORE PUBLIC
PROVIDES SHOW SETTINGS
COMMUNICATES DIRECTLY WITH POTENTIAL CUSTOMERS
PLUGS PARK IN FILMS
SHOWCASE FOR CHARACTERS
FEEDS MATERIAL TO
PROVIDES ADDED SALES OUTLET
SOURCE MATERIAL FOR
PROMOTES MERCHANDISE
COMMUNICATES DIRECTLY WITH CUSTOMERS
TURNS EXHIBITORS INTO LICENSEES
COMMUNICATES DIRECTLY WITH POTENTIAL CUSTOMERS
SOURCE OF NEW PRODUCTS
PROVIDES ADDITIONAL SALES OUTLET
SALES OUTLET IN MAJOR MARKET
PROMOTES PARK THRU TOYS, GAMES, ETC.
TRAINS MANPOWER FOR
SOURCE OF IDEAS FOR ATTRACTIONS
PROVIDES AUDIO-ANIMATRONICS FOR FILMS
PROMOTES PARK
PRODUCES PROMO MATERIAL
SOURCE OF NEW MATERIAL
WILL PROVIDE MAJOR SALES OUTLET
WILL PROMOTE THRU TOYS, ETC.
PROVIDES SALES
PRODUCES PROMO MATERIAL
FEEDS NEW MATERIAL TO
FEED IDEAS FOR RETAIL ITEMS
TRAINS MANPOWER FOR
CREATES TRANSPORTATION SYSTEMS
SHOWCASE FOR DESIGN TALENT
PRODUCES AUDIO-ANIMATRONICS
FABRICATES MECH. SYSTEMS
DESIGNS ATTRACTIONS FOR
FOR FUTURE PRODUCTS
PROVING GROUND
MASTER PLANS FUTURE PROJECTS
PROVIDES AUDIO-ANIMATRONIC SHOWS
IMAGINEERS AND DESIGNS ATTRACTIONS FOR
FABRICATES MECHANICAL SYSTEMS
R & D FOR
IMAGINEERS
PRODUCES AUDIO-ANIMATRONIC SHOWS
IMAGINEERS & DESIGNS ATTRACTIONS FOR
MASTER PLANS FUTURE PROJECTS

Outline

- Why buy?
  - The market's virtues
  - Failings of the firm
- Why make?
  - Virtues of the firm
  - Failings of the market

Market's virtues

- Motivate a host of actors (with abundant skills and talent) to generate products and services that enhance value of what you do.
- Remember: "Most of the smartest people don't work for you"
- Decision to outsource reflects confidence in the wisdom and creativity of market actors, who when strongly motivated will compose solutions superior in cost and quality to those you can compose



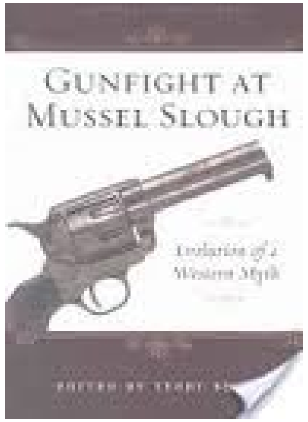
What causes markets to fail to deliver desired incentives?

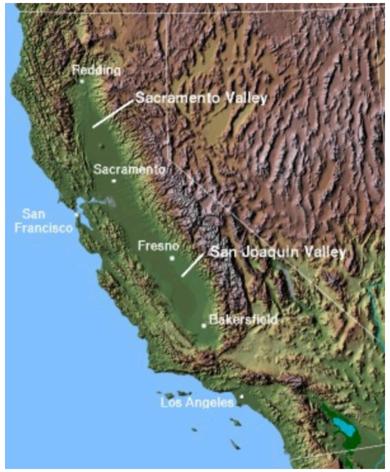
1. When desired exchanges require co-specialized investments.
2. When exchanges require complex coordination.
3. When exchanges require the transfer of subtle, tacit forms of knowledge.

Co-specialization

- The need for co-specialized investments (with uncertainty) elevates cost of using the market, and is the primary driver toward vertical integration.
  - You need a supplier to make substantial investments specific to your business
  - Generates a hold-up problem

The Hold-up Problem





“$2.50 per acre
and up”

After homes built, asked for $35/ acre.

Poor incentives to generate desired investments

Example: GM-Fisher Body

- GM wants Fisher Body to make large investment in metal stamping equipment
- GM also wants Fisher to co-locate its facilities
- Fisher had no incentives to invest in specific capital absent guaranteed price and volume
- GM unwilling to guarantee price and volume due to uncertainty about demand
- GM buys Fisher to reshape incentives – to induce and protect specific asset investments

Co-specialization

Firm 1: Manufacturing

Firm 2: Consumer Electronics

$100 million

Hold-up potential

$200 million

½ is specific

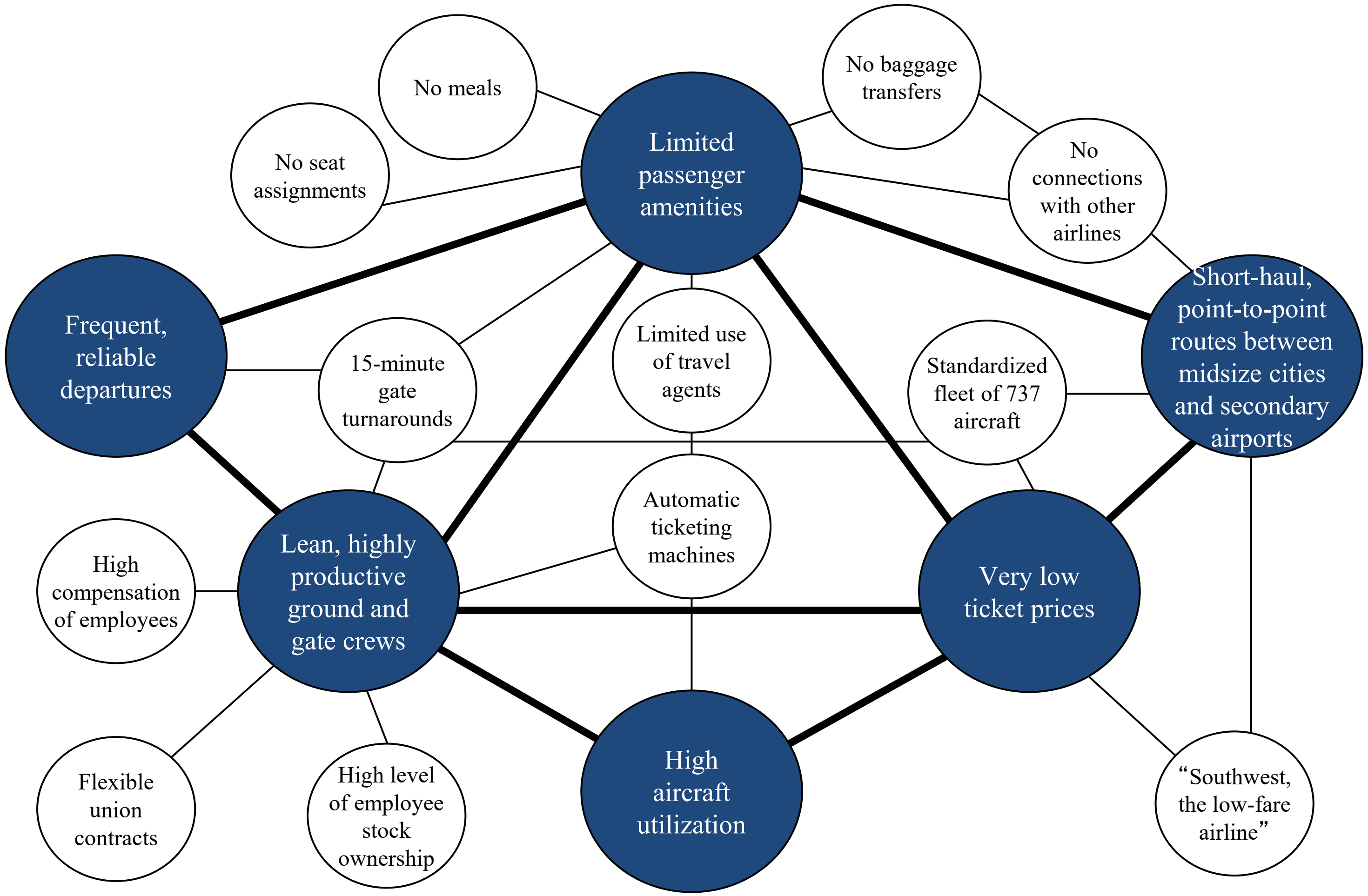
Forms of Co-specialization

- Physical asset specificity:
  - I need this vendor to create and install highly customized equipment.
- Site specificity:
  - I need this vendor to invest in assets at a rather remote location.
- Human asset specificity:
  - I need this vendor to develop deep knowledge about my organization and customized skills with little application elsewhere.
- Temporal specificity:
  - I need this vendor to provide a service for me at particular point in time.

Managing complex coordination with poor measurement

- How easily is output measured?
  - Quality
  - Quantity
  - Reliability
- How easy are inputs measured?
  - Effort
- Can you easily draft a contract to support the exchange? Can you easily specify and measure the output?

Can I compose this coordination using market incentives?



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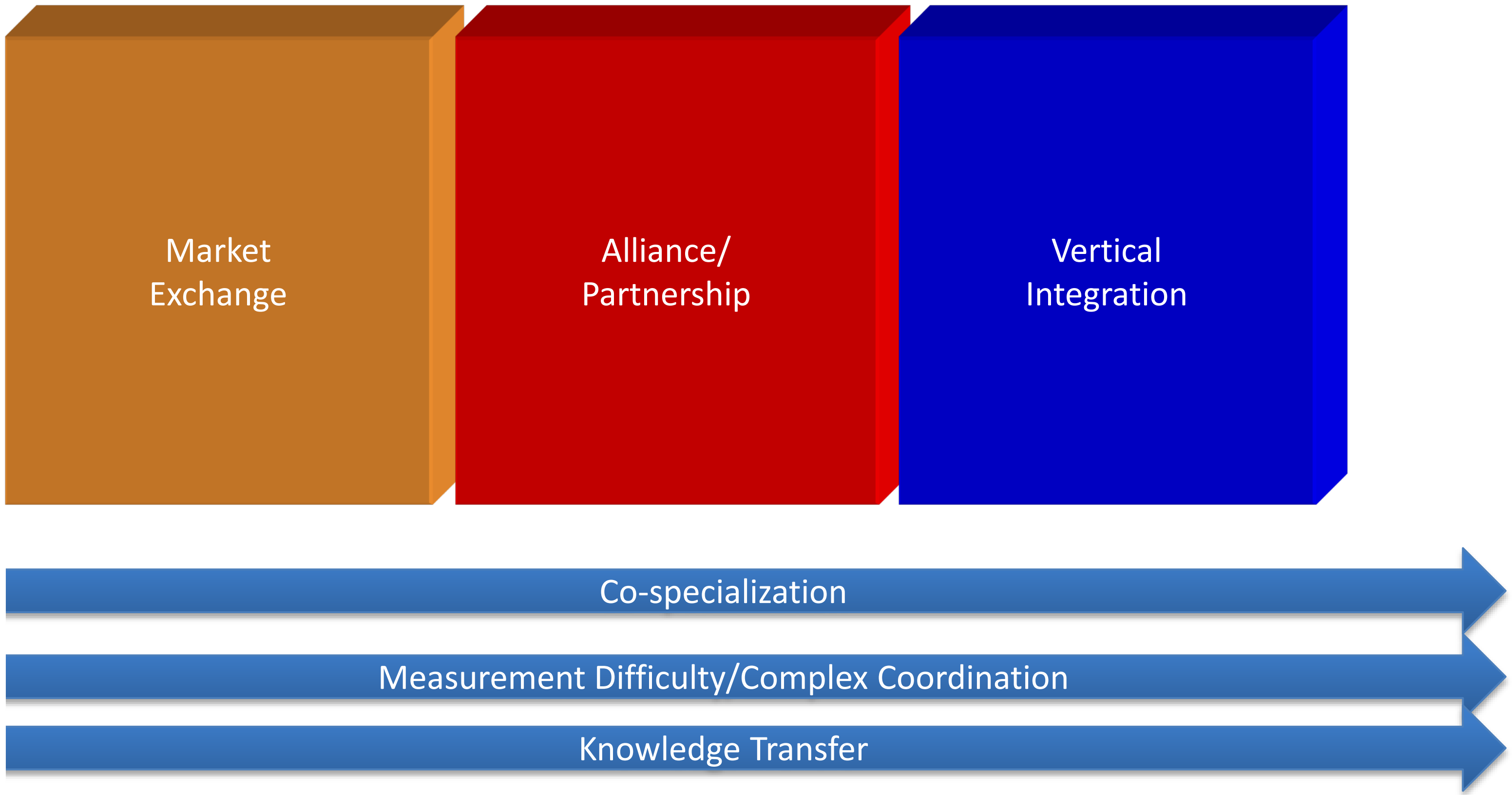
Contracting for Knowledge

- Is knowledge the primary asset to be exchanged?
  - Technology, skills, expertise
- Can you draft a contract to protect the exchange?
- Basic Hazard:
  - The value of knowledge is not known until after it is revealed. Once revealed the recipient has no incentive to pay for it.
  - Efficient knowledge transfer requires shared language to facilitate

The Drivers of Governance Choice



Integration provides…

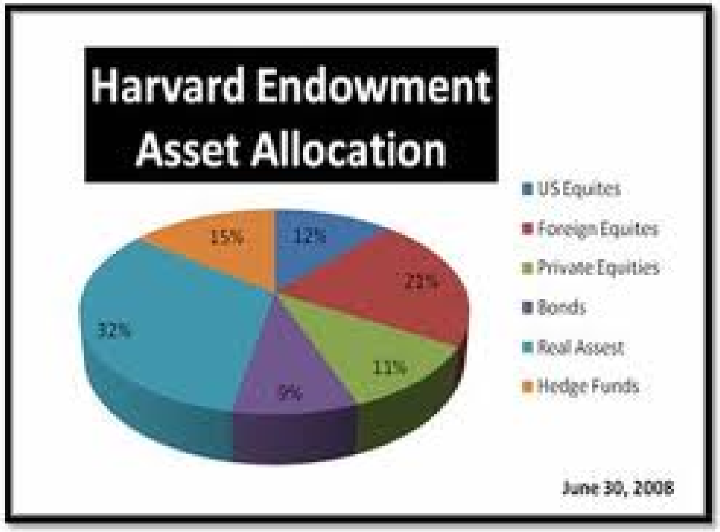
1. Incentives for co-specialization.
2. Environment for complex coordination.
3. Social community for subtle, tacit knowledge transfer.

When integration fails…

- The cost of integration’s control is the loss of the market’s motivation!

What causes the loss of incentives within firms?

- Social comparison costs
- Knowledge atrophy costs
- Social attachment costs



Harvard Endowment
Asset Allocation
US Equites
Foreign Equites
Private Equities
Bonds
Real Assest
Hedge Funds
12%
21%
11%
9%
32%
15%
June 30, 2008

2002-2003 HMC FUND MANAGER PAYOUTS
Payouts in Millions of Dollars
0
5
10
15
20
25
30
35
40
2002 Fiscal Year
2003 Fiscal Year
David Mittelman
Jeffrey Larson
Maurice Samuels
Steve Alperin
Tony Morgan
Jack Meyer
Elizabeth Randall
Shawn Martin
Fund Managers

- $27 billion endowment, internally managed
- Internal managers outperformed comparable funds by 50%, worth billions in increased endowment
- Top fund managers each earned $25-30 million per year
- Student, alumni, faculty outraged
- Harvard President insisted that payments would be greater if the activity was outsourced.
- University Treasurer publicly notes that if activity was outsourced, people would not care.
- Pay is cut, fund managers leave.

Payouts

Manager	’04 Payout	’04 Performance	’03 Payout	’03 Performance
David R.Mittelman	$25.4	9.2% vs.(3.4%)	$34.13	31.1% vs.17.3%(Domestic bonds)
Maurice Samuels	$25.3	17.5% vs.7.6%	$35.1	52.4% vs.18.0%(Foreign bonds)
Jeffrey B.Larson	$8.1	40.6% vs.32.6%	$17.3	(2.8%) vs.(6.2%)(Foreign equity)
Jack R.Meyer	$7.2	21.1% vs.16.4%	$6.9	12.5% vs.8.3%

Summers Reaction

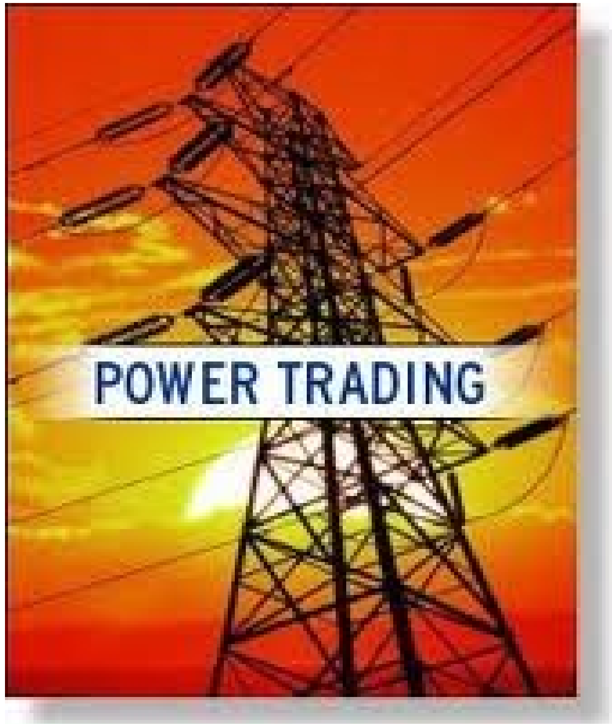
- "Most universities hire hedge funds, which pay huge salaries to their best traders. We hire our own traders and therefore pay them huge salaries, and people sometimes get upset. The easy thing would be to say we weren't going to do it anymore and hire external managers, like everybody else does. [But] we would then be spending $50-$100 million a year more getting our endowment managed. It would be easier to do the inefficient thing and avoid bad publicity, but I don't think it would be the right thing to do."

Another Illustration

- In 1980 Tenneco Inc.'s acquired a relatively small company, Houston Oil and Minerals Corporation (HOMC). To encourage the retention of Houston Oil's exploration talent, Tenneco initially offered special salary, bonuses, and benefits to Houston Oil employees -- payments that were not offered to others at Tenneco. Tenneco also "agreed to keep [HOMC] intact and operate it as an independent subsidiary" rather than consolidate the acquisition. Despite initial enthusiasm, [HOMC's] managers and its geologists, geophysicists, engineers, and landsmen left in droves during the following year. The implementation of the customized compensation package was delayed, because, as Tenneco's vice president for administration observed, "We have to ensure internal equity and apply the same standard of compensation to everyone."

Large Pharma Company buys Biotech Startup

xceed
biotechnology ltd


POWER TRADING

What do the illustrations tell us?

- **In each illustration, managers crafted an incentive mechanism tailored to motivating performance for a specific group or activity.**
- **Plans, where implemented, were successful in delivering desired performance, …**
- **…but the comparison processes of those not part of the plan imposed overwhelming costs.**
- **The trade-off was:**
  - – incentive/selection benefits (those within plan)
  - – comparison costs (from those not attached to the plan)

Social Comparison Processes

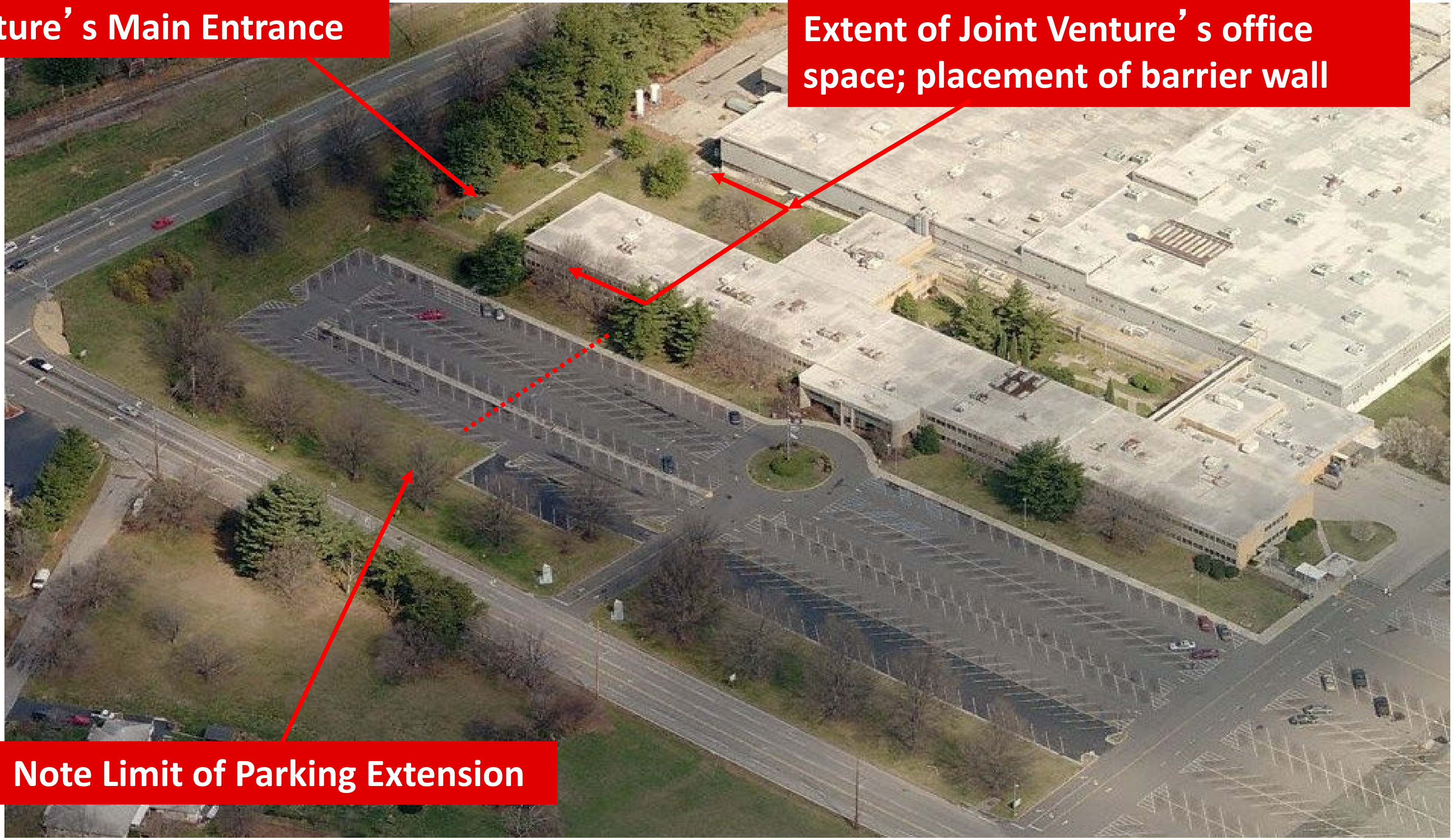
- Income differences trigger emotions of envy or inequity.
- Heightened by propensity to exaggerate self-ratings
- Perception of inequity causes employees to act to reduce it in ways that impose costs on the firm:
  - Departure
  - Reduced effort
  - Costly politicking

What triggers social comparison?

	Company A N=268	Company B N=445
Top 1%	8.0%	11.9%
Top 5%	32.8%	42.0%
Top 10%	61.8%	73.3%
Top 25%	89.7%	92.5%
Top 50%	99.6%	100.0%

Within firms…

- Comparison costs: cost imposed on the firm as a response to perceived inequity in the distribution of rewards (reduced effort; turnover; politicking)
- General proposition:
  - In choosing boundaries of the firm and the structure of compensation, managers must take into account social comparison costs.

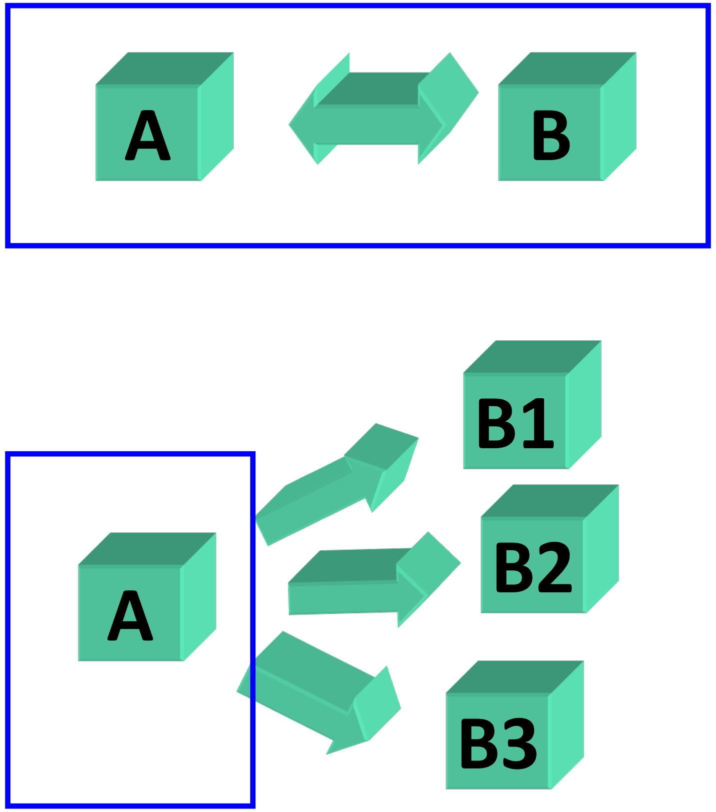

Emergency Exit converted to Joint Venture’s Main Entrance
Extent of Joint Venture’s office space; placement of barrier wall
Note Limit of Parking Extension

Options in Reducing Social Comparison Costs

- Change the boundaries of the firm
- Isolate individuals with differing pay (restrict social comparison) – involves compromising optimal production design
- Restrict variance in pay

Integration and Competence Atrophy

Internal units focus on satisfying internal customers rather than establishing levels of competence required to compete externally



Integration Promotes Social Attachments

- While social attachments…
- Facilitate better communication
- Perhaps enhance effort
- But,
- May cloud investment decisions
- May cloud strategic decision making
- Reduce flexibility

Make vs. Buy

- Market Benefits
  - Motivating the minions who are collectively smarter
- Market Failure
  - Complex coordination
  - Co-specialization
- Hierarchy's Benefits
  - Command and control
  - Facilitating co-specialized investments
- Hierarchy's Failure
  - The cost of control is the loss of motivation

Summary

- Object is to compose what your theory reveals
- Getting the governance right is critical to value creation and value capture
- Beware of your intuition to seek greater control.
- Understand co-specialization
- Manage the dynamics

Assignment

- Using your chosen business model, define the key activities you need to perform.
- Select three activities and evaluate them along three dimensions:
    1. The need for co-specialization and the difficulty of drafting a contract to generate it
    2. The difficulty of measuring output or input performance
    3. The need for complex knowledge exchange and coordination
- Based on this logic, which of these three activities should you perform inside your future firm and which should you outsource?