

---

# Co-opetition

Barry Nalebuff

Yale School of Management

New Haven, CT 06520

Version 5/7/96

# Business is War and Peace

---

Cooperation in creating value

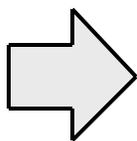
Competition in dividing it up

Not cycles of War, Peace, War ...

Simultaneously War and Peace

*“You have to compete and  
cooperate at the same time”*

Ray Noorda, Novell



Co-opetition

# Manual for Coopetition

---

Leadership secrets of

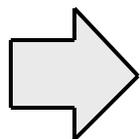
Attila the Hun?

St. Francis of Assisi?

How to

cooperate without being a saint

compete w/o killing the opposition



Game Theory

# Game Theory

---

- Game theory analyzes the interplay between competition and cooperation
- Founders: John von Neumann and Oskar Morgenstern (1944)
- The field has been gaining increasing attention
  - » 1994 Nobel Prize
  - » FCC spectrum auctions
  - » Application by management consultants

# Are we playing a game?

---

- Everything is a Game
- Citibank deciding whether to issue a credit card.  
Credit card scoring
- Engineer versus Manager
- Physics and Game Theory  
Newton's Third Law

# Business as a Game

---

Chess, poker, sports?

- » Not win-lose
- » No rule book
- » People change the game
- » Game is made up of 5 PARTS
- » Archimedes lever
- » Success comes from playing the right game

# The Game of Business

---

- Who are the players?

- » Customers, Suppliers, Competitors

Plus

- Providers of complementary products and services

- » *Hardware and software*

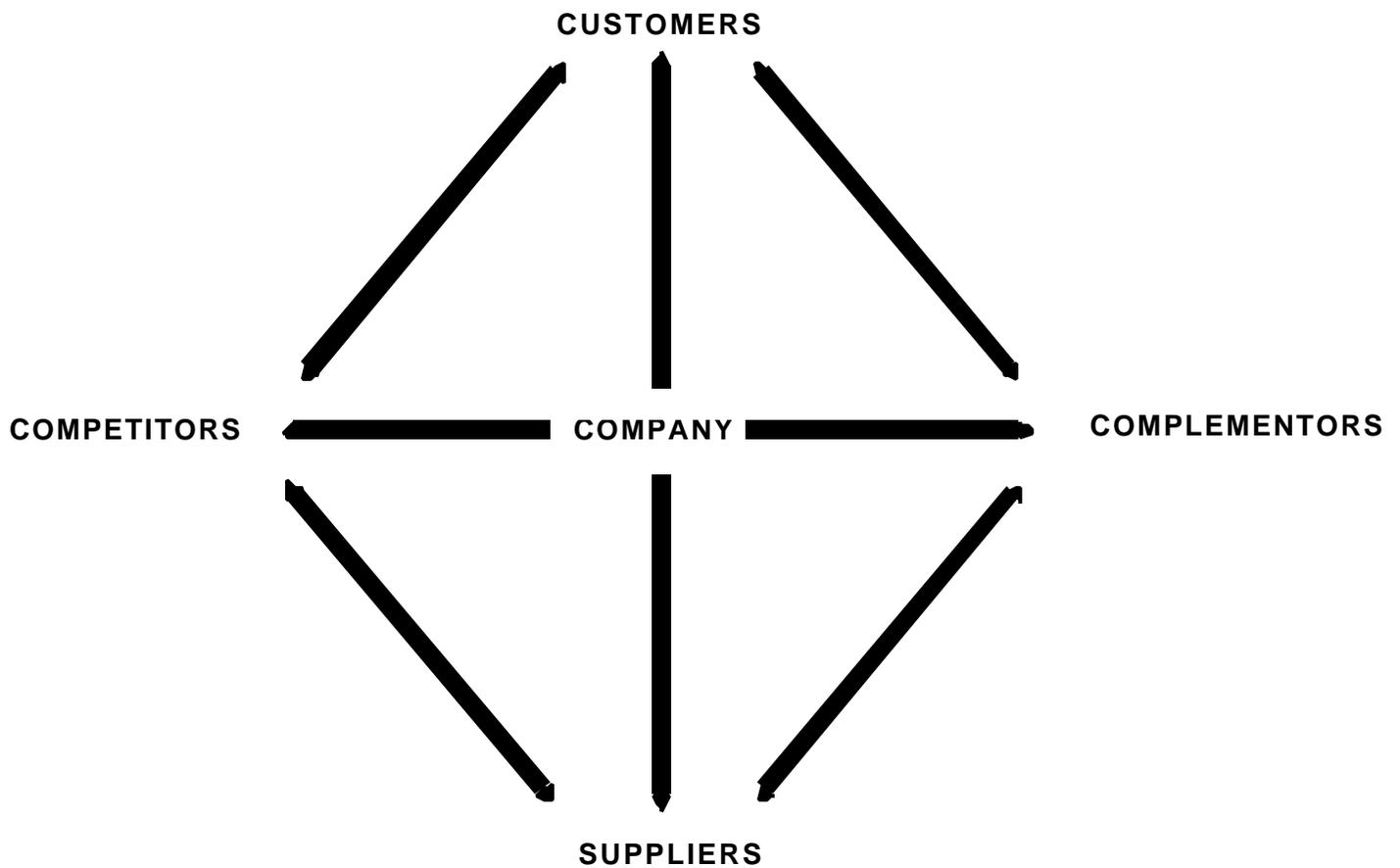
- » *Cars and auto loans*

- » *VCRs and HBO*

- » *Intel and ProShare*

# The Value Net

---



# Competitors & Complementors

---

A player is your **complementor** if customers value your product more when they have the other player's product than when they have your product alone.

A player is your **competitor** if customers value your product less when they have the other player's product than when they have your product alone.

# Complementors & Competitors: The Supply Side

---

A player is your **complementor** if it's **more** attractive for a supplier to provide resources to you when it's also supplying the other player than when it's supplying you alone

A player is your **competitor** if it's **less** attractive for a supplier to provide resources to you when it's also supplying the other player than when it's supplying you alone

# The Supply Side: Examples

---

## Compaq & Dell

**compete** with each other for the latest Intel chip

**complement** each other in defraying Intel's R&D costs

## American & Delta

**compete** with each other for landing slots and gates

**complement** each other in defraying Boeing's R&D costs

# University's Net

---

## CUSTOMERS

Students, Parents,  
Companies, Federal  
Government, State  
Government, Donors

## COMPLEMENTORS

Other colleges,  
K--12 education,  
Computers,  
Housing, Airlines,  
Hotels, Cultural  
activities, Kinkos,  
Local employers

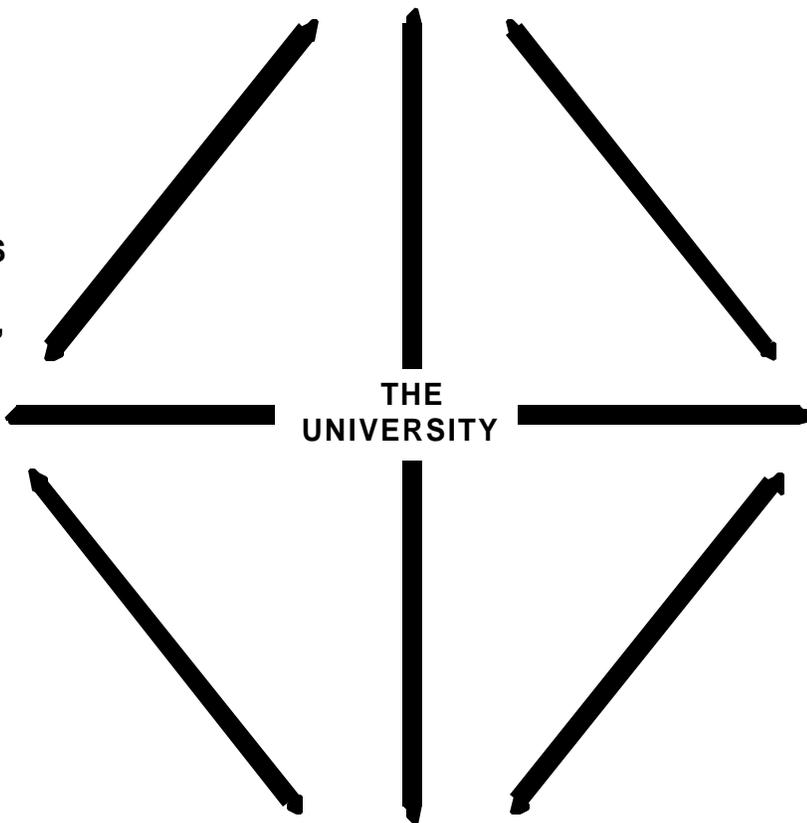
## COMPETITORS

Other colleges,  
Freelancing  
faculty,  
Private  
enterprise,  
Hospitals,  
Museums

THE  
UNIVERSITY

## SUPPLIERS

Faculty, Staff, Administrators,  
Publishers (books, journals,  
online services), Donors



# Multiple Roles: Jekyll and Hyde

---

- Competitive threat or complementary opportunity?
  - » *Movie theaters & video rentals*
  - » *Traditional & Internet booksellers (BookZone)*
  - » *“paperless” office*
  - » *ATM machines*

# Multiple Roles: Making Markets

---

*Antique stores in Paris*

*Theater, music, & dance on  
and off Broadway*

*Toys R Us & McDonald's &  
Discovery Zone?*

**Complementors in making  
the market**

**Competitors in dividing  
the market**

# Friend or Foe?

---

## **Friends**

Customers, Suppliers,  
Complementors

## **Foes**

Competitors

**X**

# The Competitive Mindset

---

- The bias:

- » Customers and suppliers have to *choose* between opportunities with us and with others
- » We're taught to think in terms of constraints, trade-offs, substitution

- To correct the bias:

**Think complementor  
as well as competitor**

# Using Game Theory

---

- Founders:

John von Neumann and Oskar Morgenstern (1944)

- Equations vs. Experience

- Power--yours and others--is determined by the structure of the game

- Added values, Rules, Perceptions, and Boundaries

# The Card Game

---

- Adam has 26 red cards
- 26 people each have 1 black card
- A red card and a black card together are worth \$100
- Who will get what?

# Barry's Version

---

- Barry tries the game back at Yale
- He loses 3 black cards
- Pie is smaller by \$300
- Is everyone worse off?

Examples: *NFL, Nintendo*

# The NFL Today

---

- St. Louis Cardinals --> Phoenix
- LA Rams --> St. Louis
- Baltimore Colts --> Indianapolis
- Cleveland Browns --> Baltimore
- Houston Oilers --> Nashville?
- Phoenix Cardinals --> ?

# Multiple Choice

---

Which company has the largest stock market value?

A) Sony

B) Nissan

C) Nintendo

# Multiple Choice

---

Which company has the largest stock market value?

A) Sony                      2.2 trillion yen

B) Nissan                    2.0 trillion yen

C) Nintendo                2.4 trillion yen

back in 1990--91

# Added Value

---

What you get is based on your added value

Added value =

total value with you

minus

total value without you

It's what you bring to others

# AV Analysis

---

- Adam's added value is \$2,600
- Each person with a black card has added value of \$100
  - » Their total added value is \$2,600
- The game is symmetric

# AV Analysis cont.

---

- Barry's added value is \$2,300
- But, each black card has zero added value
- So, Barry does much better
  - » Bigger piece of smaller pie

# What's Your Added Value?

---

- Egocentric vs. Allocentric
- Individual vs. Group
- *It's a Wonderful Life*
- *Home Alone*

# Perception Games

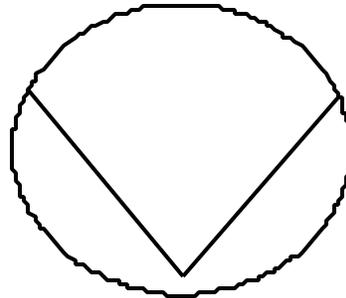
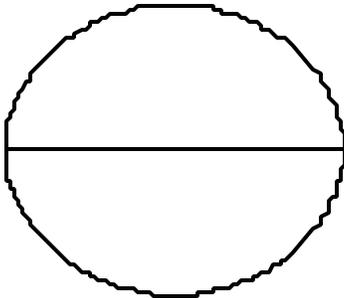
---

- Perceptions are part of the game
- Texas Shoot-Out
  - » One side states price
  - » Other side says buy or sell
  - » Shooter or Shootee?
- Different valuations

# Texas Shoot-Out

---

- If you know the other side's value, go first



- If you are uncertain, better to go second

# Boundaries of a Game

---

- One Big Game
- Chess
- Epson's Entry in Laser Printers

# Allocentrism

---

- Added value
  - » Put yourself in the shoes of others to assess your added value
- Rules
  - » Put yourself in the shoes of others to anticipate reactions to your actions
- Perceptions
  - » Put yourself in the shoes of others to see how they see the game

# Irrationality

---

- Profits are not the only objective  
Pride, jealousy, fairness matter
- Ignore this, you can both lose
- Even if you think others are misguided, don't impose your rationality on them

## **Allocentrism**

# Change the Game

---

Getting the right mindset ...

**“Philosophers have only  
interpreted the world.  
The point, however,  
is to change it”**

# PARTS

---

- “Changing the rules” is only one of five levers
- The elements of a game
  - **Players**
  - **Added values**
  - **Rules**
  - **Tactics**
  - **Scope**
- PARTS is a complete set of levers: exhaustive, not mutually exclusive
- Method to out-of-the-box thinking

# Players

---

Becoming a player changes the game

» The Heisenberg principle

*NutraSweet and HSC*

*Gainesville, Norfolk Southern  
and CSX*

*McCaw, Lin, and BellSouth*

# Pay Me to Play

---

Competition is valuable:

Don't give it away,

Get paid to play

# How to Get Paid

---

- Cash
- Contribution to upfront expenses
- Guaranteed sales contract
- Last-look
- Access to people
- Access to information

# 4 Hidden Costs of Bidding

---

- You're unlikely to succeed--there are better uses of your time
- When you win the business, the price is so low you lose money
- The incumbent can retaliate--you end up trading high-margin for low-margin customers
- Win or lose, you establish a lower price--existing customers will want a better deal

# 4 More Hidden Costs of Bidding

---

- New customers will use the low price as a benchmark
- Rivals will use the low price you helped create as a benchmark
- It doesn't help to give your customers' competitors a better cost position
- Don't destroy a rival's glass house

# More Players

---

- Bringing in

Customers

– *Harnischfeger*

Suppliers

– *Amex and Merrill Lynch*

Complementors

– *The 3DO Company*

Competitors

– *Intel*

# Added Value

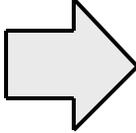
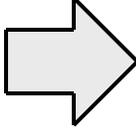
---

- Dangers of undersupply
  - » Hole in the market
  - » Lost sale --> lost relationship
  - » Ill will
  
- Raising your AV
  - » *TWA Comfort Class*
  - » *Frequent-flyer programs*

# Healthy Imitation

---

*“If everyone can do it, you can't make money at it”*

- Copying products vs. imitating strategy
- win-LOSE + LOSE-win  
 lose-lose
- win-win + win-win  
 WIN-WIN

# Loyalty

---

Create Loyalty By  
Rewarding It

--

Say thank you

# Saying Thank You

---

- Say thank you in kind, not cash
  - » *frequent-flyer; insurance*
- Save the best thank you for your best customers
  - » *cellular phones; teaser rates*
- Say thank you in a way that builds your business
  - » *three-way calling; guest passes*

# More Thanks

---

- Say you're going to say thanks
  - » *American Express*
- Allow your competitors to have loyal customers, too
- Don't forget to say thank you, even if you have a monopoly
  - » *cable television*
- Say thanks to your suppliers, too
  - » *employee discounts, and more*

# Rules

---

“When the rules of the game prove unsuitable for victory, the gentlemen of England change the rules.”

- Rules structure negotiations between buyers and sellers
- Rules come from
  - » custom
  - » contractual arrangements
  - » the government

# Contract Rules

---

- In games with rules, you need to anticipate the reactions to your actions
- Games in business do have some rules
  - » *Most-favored-customer clauses*
  - » *Meet-the-competition clauses*
- How do MFCs change the game?
  - » less incentive to negotiate
  - » guaranteed cost parity

# Contract Rules

---

- In games with rules, you need to anticipate the reactions to your actions
- Games in business do have some rules
  - » *Most-favored-customer clauses*
  - » *Meet-the-competition clauses*
- How do MFCs change the game?
  - » less incentive to negotiate
  - » guaranteed cost parity

# GM and Ford Cards

---

- To whom do you want to charge a high price? A low price?
- What's in it for GM
- What's in it for Household
- Changing dynamics between GM and Ford
- Comparison to freq.-flyer programs

# Strategic Rules

---

- Mass-Market Rules

- » Chrysler and Guaranteed Rebate
- » Frequent-Flyer programs and the GM Card

- Changing the Rules

- » Not written in stone
- » Saatchi & Saatchi

# Tactics

---

“Perception is Reality”

- Perceptions of the world, regardless of whether they are accurate, drive behavior
- Tactics are actions taken to shape other players' perceptions

# Games in a Fog

---

- Establishing your credibility
  - » *The Peacock's Tail*
  - » *New York Post & Daily News*
  - » *Royalties*
  - » *The FedEx guarantee*
  - » *Locating a toxic-waste plant*
  - » *ET -- the wrong call*
- Preserving the fog
  - » *The cat in the bag*
  - » *disagreeing to agree*

# Scope

---

- Is PART the whole?

“No man is an Island”

- Recognize the links between games
  - » *Epson in laser printers*
- Links through
  - » *Players*
  - » *Added values (complements)*
  - » *Rules (most-fav.-cust.)*
  - » *Perceptions (threats, precedents)*

# Links between Games

---

- Added value links
  - » *“judo strategy”*
  - » *Sega in 16-bit video games*
  - » *Softsoap vs. Ivory*
- Rules can link games
  - » *Long-term contracts*
  - » *Package discounts*
- Perceptions can link games
  - » *Corpus Christi and Beaumont*
  - » *NutraSweet in Europe*

# Think Big

---

There is  
always a  
larger  
game

# Changing the Game: Players Questions

---

- What is your Value Net?
- What are the opportunities for cooperation and competition?
- Would you like to change the cast? What new players would you like to bring into the game?
- Who stand to gain if *you* enter? Who stands to lose?

# Changing the Game: Added Value Questions

---

- What is your added value?
- How can you increase your added value?
- Can you create loyal customers and suppliers?
- What are the added values of the other players?
- Is it in your interest to limit their added values?

# Changing the Game: Rules Questions

---

- Which rules are helping you and which are hurting you?
- What rules would you like to have in contracts with your customers and suppliers?
- Do you have power to make rules? Does someone have the power to overturn them?

# Changing the Game: Tactics Questions

---

- How do other players perceive the game?
- How do these perceptions affect the play?
- Which perceptions would you like to preserve?
- Which ones would you like to change?
- Do you want the game to be transparent or opaque?

# Changing the Game: Scope Questions

---

- What is the current scope of the game
- Do you want to change it?
- Do you want to link the current game to others?
- Do you want to delink the current game from other games?

# Mental Traps

---

- Seeing only part of the game
- Failing to think methodically about changing the game
- Believing that success must come at others' expense
- Accepting the game as it is