

# MIS 3534 Fall 2014 – Strategic Management of Information Technology

## *Day 11 – Strategic IT Outsourcing (II)*

**Min-Seok Pang**

**Management Information Systems  
Fox School of Business, Temple University  
minspang@temple.edu**

***Nov. 24<sup>th</sup>, 2014***

## **Today, we will discuss ...**

- How different is Bharti's strategic outsourcing from standard outsourcing arrangements?
- What are the merits and risks in a strategic outsourcing deal?
- How to write a contract in a strategic outsourcing?

## Let's have a deal.

- If you are a parent of a high-school kid, how would you write a private-tutoring contract with a tutor?
- If you are a tutor, how would you?
- Write a contract between a parent and a tutor.
- Be as specific and as comprehensive as possible.



## Wireless in the Developing Countries

- Do you know why the wireless communication market is more popular and grows faster than the traditional landline telephone in the developing countries?
  - It is cheaper to set up cell towers in the rural areas than to link landlines to every household dispersed sparsely.
  - A cell phone is now as cheap as traditional telephones.



## Bharti Airtel (1/2)

- What's the strategic position of Bharti Airtel in the industry? Is it doing well?
- What are Bharti's core businesses?
- What are its core competencies? Or what should be core competencies for Bharti to compete and survive successfully?



Express Yourself

<http://i2mag.com/bharti-airtel-adds-2-01-million-indian-mobile-users-in-april/>

## What can you tell from this table (1/2)?

Exhibit 1 Highlights—Bharti's Financial Situation at Year-end 2003 and 2004

Key Indicators	Year-end March 31, 2004		Year-end March 31, 2003	
	Rupees Million	US\$ Millions	Rupees Million	US\$ Millions
Sales	48,320	\$1,113.4	24,170	509
Net income	5,076	\$ 116.9	(2,018)	(42)
Earnings per share	INR 2.76	\$0.06	(INR 1.10)	(\$0.02)
Total assets	119,021	\$2,742.4	88,659	1,865
Total liabilities	73,105	\$1,684.5	47,981	1,009
Long-term debt (net of current portion)	36,965	\$ 851.7	22,736	478
Operating margin	16.9%	16.9%	-2.3%	-2.3%
Profit margin	10.5%	10.5%	-8.3%	-8.3%

## What can you tell from this table (2/2)?

**Exhibit 7** Indian Market Share for the Top Seven Telecom Operators

Operator	Wireless Market	Wire-Line Market
Bharti	25%	1%
BSNL	16%	86%
MTNL	1.5%	4.6%
Hutch-Essar	12%	--
Tata	2%	--
Idea	11%	--
Reliance	19.5%	1%
Others	13%	--

Source: Compiled by casewriter based on data from JM Morgan Stanley Equity Research Asia-Pacific, Bharti Tele-Ventures Ltd., June 9, 2005.

## Bharti Airtel (2/2)

- Bharti Airtel is growing very rapidly and in the #1 of the wireless market, but not a dominant #1.
- Its core business functions are network operations and marketing.



## Bharti Airtel – Before Outsourcing (1/6)

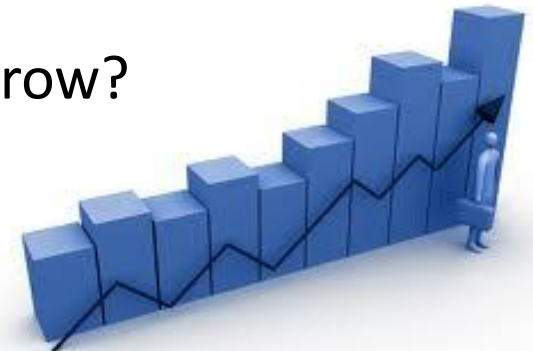
- Why did Mr. Gupta, the managing director of Bharti, say “Budgeting for capital expenditures was a *nightmare*”? (p. 1)
  - Capital expenditures for what?
  - Bharti was purchasing them from whom?
  - Every time it purchased them, which process was Bharti going through?
- Recalling Otis case, anyone remember why an elevator customer does not want to change its maintenance service provider and prefers a long-term contract?

## Bharti Airtel – Before Outsourcing (2/6)

- By nightmare, it refers to a transaction cost that Bharti has to incur every time it expands.
- Transaction costs include costs in finding/selecting vendors, research, negotiation, and writing a contract.
- This is expensive and time-consuming.
- Capacity planning and management is not flexible and agile enough to meet an increasing demand.

## Bharti Airtel – Before Outsourcing (3/6)

- Bharti Airtel is a growing company in a growing industry. It had to expand its capacity in network and IT every year.
- Suppose that Bharti *predicts* that the demand for wireless services increases by 15% next year and expands its capacity accordingly.
  - What would happen if the actual growth is more than 15%?
  - What would happen if the actual growth is less than 15%?
  - Can it expand its capacity by 5% by tomorrow?



## Bharti Airtel – Before Outsourcing (4/6)

- Suppose that Bharti predicts that the demand for wireless services increases by 15% next year and expands its capacity accordingly.
  - If the actual growth is more than 15% (under-investment), the quality of network services deteriorates (more dropped calls).
  - It cannot expand its capacity by 5% by tomorrow. It takes several months to do so.
  - If the actual growth is less than 15% (over-investment), Bharti had to pay “opportunity” costs (interests payment for unused capacity).

## Bharti Airtel – Before Outsourcing (5/6)

- Think about the relationship between Bharti and Ericsson, a network equipment vendor.
- What are the interests of Bharti?
- What are the interests of Ericsson?
- Are they in the same boat?
- What would Ericsson do?



## Bharti Airtel – Before Outsourcing (6/6)

- Before outsourcing, the best interests of Bharti is to achieve high network quality and sufficient capacity with lower capital investments.
- The best interests of Ericsson is to sell as many equipments as possible to make as much money as possible.
- They were not in the same boat.
- “inherent conflict of interest” (p. 6)

## The Proposed Outsourcing Deal (1/2)

- What are the two functions that Mr. Gupta is considering to outsource?
- What are the two differences between the previous contract and the proposed contract?
  - in terms of the breadth of the contract
  - in terms of the payment of the contract

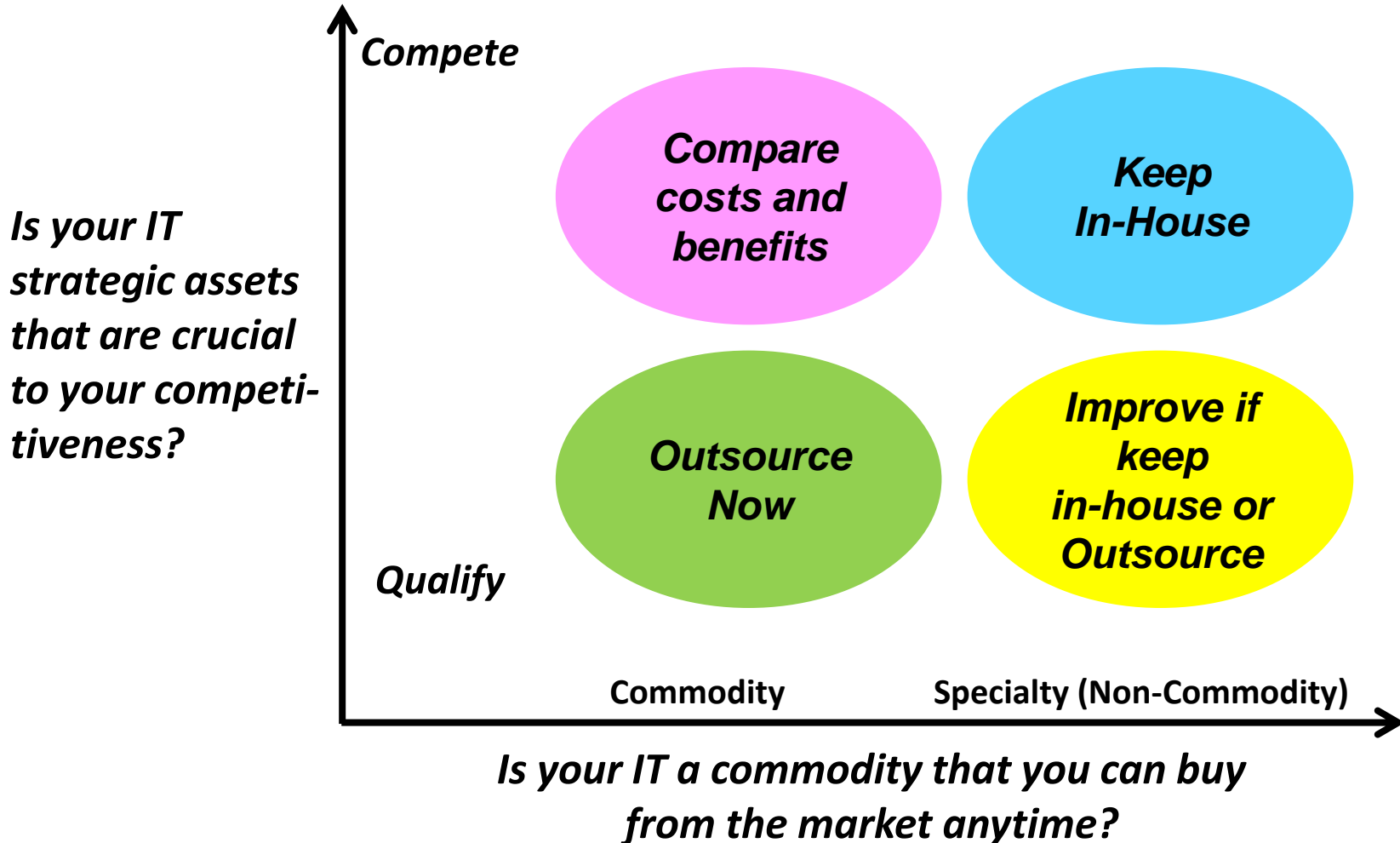


## The Proposed Outsourcing Deal (2/2)

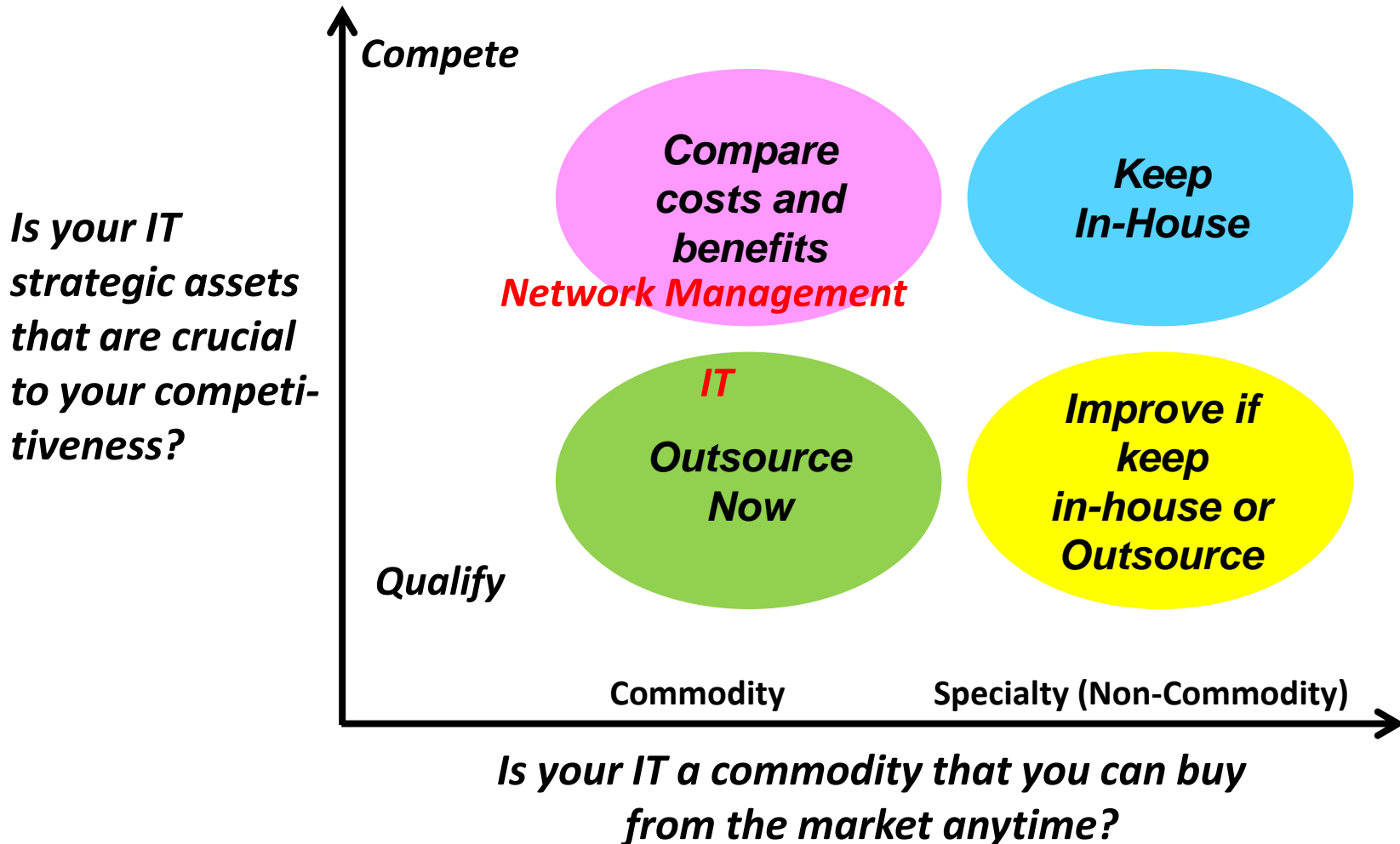
- The two differences between the previous contract and the proposed contract? The network vendors take over installation and operation of Bharti's entire wireless networks.
  - They are paid by capacity (erlangs) that *are actually used by customers*.
- IBM takes over development and management of Bharti's entire IT systems.
  - It is paid a portion of *Bharti's revenues*.
- The interests of Bharti and the vendors are aligned. *They are now in the same boat!*



# IT Outsourcing Decision Matrix



# Where are Network Management and IT?



## Conventional Wisdom in Outsourcing

- A firm outsources when external vendors can do better and cheaper.
- A firm never outsources something in the “Compete” category or core competencies.
- Do these principles apply in this Bharti case?
- So why is Mr. Gupta proposing this deal?



<http://michaelhaupt.com/contrarian-thinking/>

## Wages for Restaurant Servers

- What is the typical wage structure for restaurant servers?
  - Tips + base income
- What if there are no tips for servers and they are paid only hourly or daily wages?
  - little incentive for servers to provide quality services to customers
- What if there is no base salary?
  - risks to servers
  - unpopular restaurants, bad weather, etc.



## The New Outsourcing Contracts (1/2)

- In the proposed outsourcing contract with the network vendors, how will Bharti pay, for what?
- With IBM, how will it pay, for what?
- For how long? Why?
- Now, under the new contract, what would the interests of Ericsson or IBM?
- What would be the interests of Bharti?
- Are they in the same boat now?



## The New Outsourcing Contracts (2/2)

- Suppose that Bharti predicts that the demand for wireless services increases by 15% next year and wants to expand its capacity accordingly.
  - Under the new contract with the network vendors, What would happen if the actual growth is more than 15%?
  - What would happen if the actual growth is less than 15%?

## Is This a Good Idea? (1/3)

- Do you think this is a good idea to Bharti?
- If you were a boss of Mr. Gupta (CEO or board of directors), would you approve this deal?
- What would be the reasons for Bharti not to go into this deal?



<http://www.icts.uiowa.edu/content/contract-negotiation>

## Is This a Good Idea? (2/3)

- Do you think this is a good idea to the vendors?
- What would be the reasons for Ericsson or IBM not to go into this deal?
- What would be the reasons that they must *sign the deal* with Bharti? Are they afford to lose Bharti?



<http://nichefinder.maxupdates.tv/micro-niche-finder-%E2%80%93-the-real-deal/>



## Is This a Good Idea? (3/3)

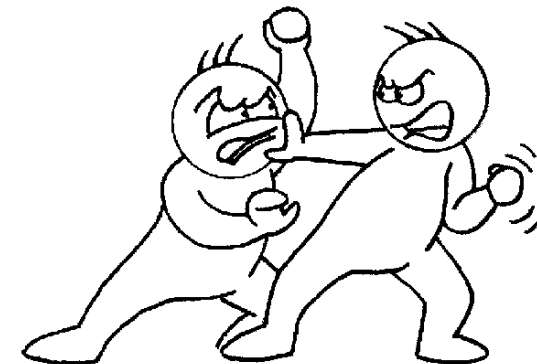
- Do you think this is a good idea to Bharti employees?
- If you were a network or IT engineer, would you work for Bharti or Nokia/IBM?
- According to the proposed contracts, Bharti's engineers will become the vendors' employees. Will this work?



<http://www.halcyonnetworks.com/managed-network-service.html>

## What could go wrong? (1/2)

- Think about in what ways things will not pan out as expected in a relationship between a parent and a tutor?
  - What are the risks in this deal?
  - From the parent's perspective?
  - From the tutor's perspective?
- Keep these possibilities in mind, rewrite your contract.



## What could go wrong? (2/2)

- What could go wrong in this long-term outsourcing relationship
  - from the perspective of Bharti?
  - from the perspective of Ericsson?
  - from the perspective of IBM?
- What are the risks in this outsourcing deal?



## The Risk Factors for Bharti (1/2)

- Will the vendors meet the performance expectation of Bharti?
  - What could Bharti do if they fail to meet?
  - Could Bharti *divorce* with a vendor? Would it be easy?
  - No, it would be *ugly*.
- What does it mean by “*You will become their slaves.*” (p. 9)
  - Will Bharti be able to control the vendors as easy as its own employees?

## The Risk Factors for Bharti (2/2)

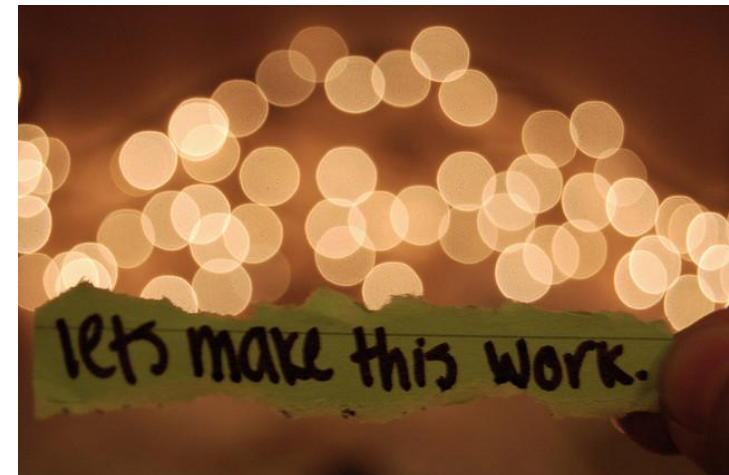
- What would happen to Bharti's innovation or competitiveness?
  - Suppose that Bharti wants to introduce a new pricing scheme. Will IBM be cooperative in implementing it?
- Can Bharti trust its vendors that they will not leak its secret to its competitors?

## The Risk Factors for the Vendors

- Will Bharti ask too much to the vendors?
- Will the outsourcing deal be profitable to the vendors?
- What if Bharti will not grow as fast as it does now?
- Would it be easy for the vendors to take over a large number of Bharti employees?
- Can they do a business with Bharti's competitors?

## What could make this work?

- What could make this work?
- How to make it sure that the outsourcing arrangement is sustainable for a long term?
  - A well-crafted contract
  - Clear expectation to each party
  - Incentives and motivation
  - Mechanisms for conflict resolution
  - Trust



<http://www.flickr.com/photos/clicphotography/4284336874/>

## What is a Contract?

- For most contractual relationships to be effective, both the client and the vendor need to be diligent and work hard.
- A contract is a key enforcement mechanism that, theoretically, ensures that each party makes the best efforts for the other and the contract is *mutually beneficial*.
  - It is the law.
- How should Bharti and the vendors write a contract?
  - What kind of stipulations would the contract in this outsourcing deal need?



## Service Level Agreement (SLA) (1/3)

- How can a SLA be defined in the parent-tutor deal?
- How to measure the service level? Or who?
- How can two parties trust the measurements?
- How detail or specific should a service level agreement be?
- What should they do when the agreed service level is not achieved?



## Service Level Agreement (SLA) (2/3)

The following is an indicative list of some of the performance measures that were included:

SLA NAME	
1.	Average number of blocked calls during the bouncing busy hours (BBH) due to insufficient traffic channel resources (TCH blocking)
2.	Average number of blocked calls during the BBH due to signaling channel resource (SDCCH blocking)
3.	Dropped calls during network busy hours (NBH) or BBH
4.	Average number of dropped calls during BBH calculated per cellular district

The above are network specific. In addition to these, we have a few customer-focused SLAs, such as:

SLA NAME	
1.	Availability of the network
2.	Accessibility to make the call (how many customers fail to make a call in the first attempt)
3.	Retainability index (how many customers are able to retain without dropping calls)
4.	Voice quality experience by the customers

## Service Level Agreement (SLA) (3/3)

- How to measure the service level? Or who?
- How can two parties trust the measurements?
- How detail or specific should a service level agreement be?
  - Could Bharti and the vendors specify the service level that would be effective and valid *for the next 10 years*?
  - No, it is not possible. There will be a number of changes that cannot be anticipated during a long-term contract.
- What should they do when the agreed service level is not achieved?

## Do friends need a contract?

- Should two roommates write and sign an agreement?
- Can two roommates/friends write an agreement?
  - Would it be possible that such an agreement stipulates all the *imaginable* contingencies and the required actions?
  - What do close friends usually do after they fight each other?



[http://bigbangtheory.wikia.com/wiki/File:The Launch Acceleration Amy and Sheldon.jpg](http://bigbangtheory.wikia.com/wiki/File:The_Launch_Acceleration_Amy_and_Sheldon.jpg)

## A Contract between Bharti and the Vendors

- Are Bharti and the vendors trying to become just a client and vendors?
  - or want to be friends or in a long-term relationship?
- From Chapter 14 (p. 225) of “IT Adventures”
  - What are the difference between “hard-line” (or “real-teeth”) and “soft-cooperation”?
  - With Bharti and the vendors, what would be an appropriate way to write a contract?
  - Soft-cooperation

## One Year Later...

- Read “Strategic Outsourcing at Bharti Airtel Limited: One Year Later.”



## Some Key Contract Clauses (1/2)

- “For network design and installation, Bharti would pay its vendors according to the *erlangs of capacity installed*. ... in case the capacity remained unused over a certain period, it would be either redeployed elsewhere or payment would be made to the vendor.” (p. 1)
  - In the proposed contract, the payment to the vendors were according to the erlangs of capacity used by customers, which is risky to the vendors.
  - The revised contract reduces the vendors’ risks.

## Some Key Contract Clauses (2/2)

- “Financial penalties for underperformance as well as rewards for exceptional performance were written into the agreement.” (p. 2)
- “To ensure that the benefits arising from economies of scale would be shared by both parties as Bharti’s revenues grow, the percentage payable by Bharti would decrease ...” (p. 2)
  - This addresses risks to IBM, who would earn lower fees when Bharti’s revenues are lower than expected.



## Governance of Outsourcing Arrangement

- “The parties acknowledge that not every detail of the partnership could be written into the contract. Notably, it is difficult to foresee every hardware and software intervention would be needed... They decided to set up *a joint governing body to manage the arrangement*, with a governing team at every level in the organization.” (p. 2)
- “its internal expectation of IBM’s services were overly ambitious; suddenly IT requests were pouring in from every office. *A great deal of internal communication* was required to clarify the limits of the agreement and the process that would be used to handle requests.” (p. 2)

## Five Essential Components in This Outsourcing

A key aspect of the IBM agreement was the issue of scope. The parties acknowledged that not every detail of the partnership could be written into the contract. Notably, it was difficult to foresee every hardware or software intervention that would be needed and whether the agreement should cover it. They decided to set up a joint governing body to manage the arrangement, with a governing team at every level in the organization. Issues that were not resolved at the lower levels would be passed on to the highest governing team, which included executives from both parties.

- Alignment of incentives of the two parties: “your success is mine and vice versa.”
- A long-term perspective
- A relative loose set of contract stipulations: “Friends don’t need a thousand-page contract.”
- A cooperative governing body: “Let’s not go to the court and straight things out together.”
- Trust!

## After Thanksgiving

- IT Risk Management
- Read Chapter 10 and 11 of IT Adventures textbook and write a brief by 5:30pm, December 1.
- Sign up for presentation for
  - IT Adventures Chapter 10
  - IT Adventures Chapter 11