The Bluest Ocean Strategy for Emerging ICT Business

Final Report

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I. Review of Blue Ocean Strategy

1.1 Introduction of Blue Ocean Strategy

What is the Blue Ocean Strategy?

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- Blue Ocean strategies, as described in the book "Blue Ocean Strategy" by W. Chan Kim and Renee Mauborgne at INSIED, found that most enterprises' busines strategy relied primarily on competition which only results in a "Red Ocean," where the costs of competition are very high and the rewards are relatively low.

- To maintain sustainable growth, the companies need to go beyond competition and create a new market- Blue Ocean.

- The Blue Ocean Strategy provides a framework and tool set for discovering new markets in traditionally filled spaces by changing the nature of competition away from the normal direction of the industry.

Value Innovation (1)

- From fundamental economic theories, we know that if the products are homogenous and there is no monopolistic player in the market, then pure price competition will be the result: "value-cost trade-off" strategy

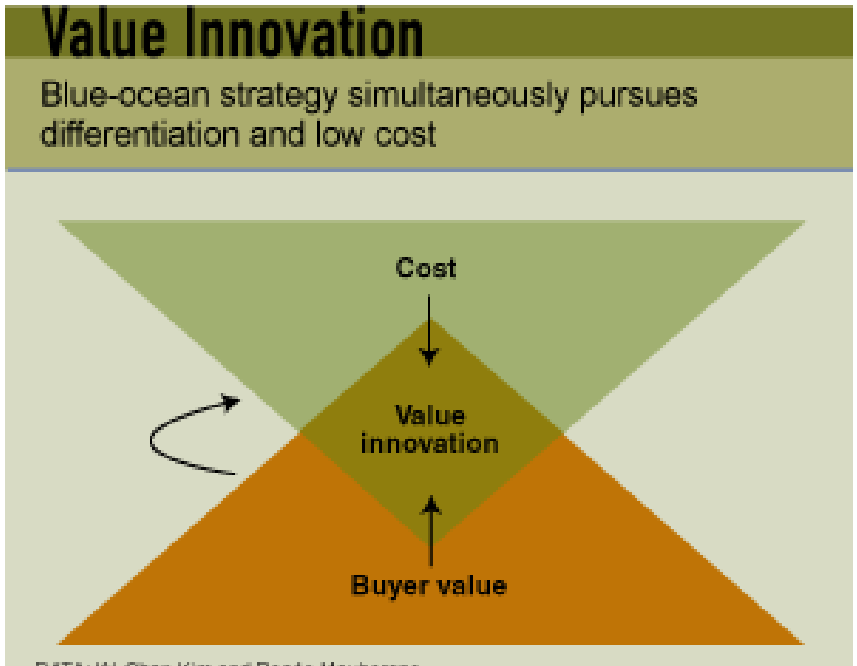
- Basically, price competition is a zero sum game, and the consumers will be the only winners.

- Value innovation is based on the view that market boundaries and industry structures are not given and can be reconstructed: the creation of blue ocean is about driving costs down while simultaneously driving value up for buyers.

Value Innovation (2)

- The main idea of Blue Ocean Strategy is how to change the rules and lift the constraints through the value innovation.

- Value innovation is the strategy that embraces the entire system of a company's activities. Value innovation requires companies to orient the whole system toward a leap in value for both buyers and themselves.

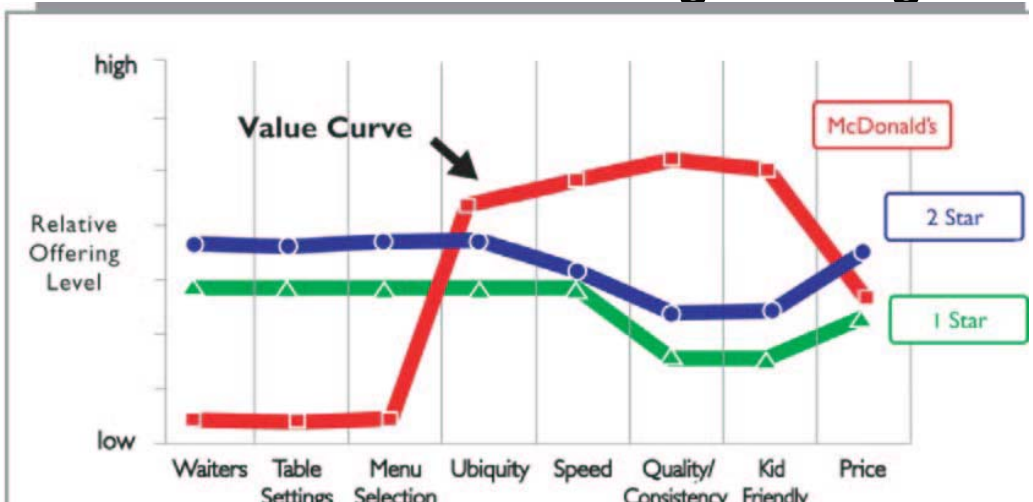


Strategy Canvas

- Strategy canvas is both a diagnostic and a action framework for building a compelling blue ocean strategy.

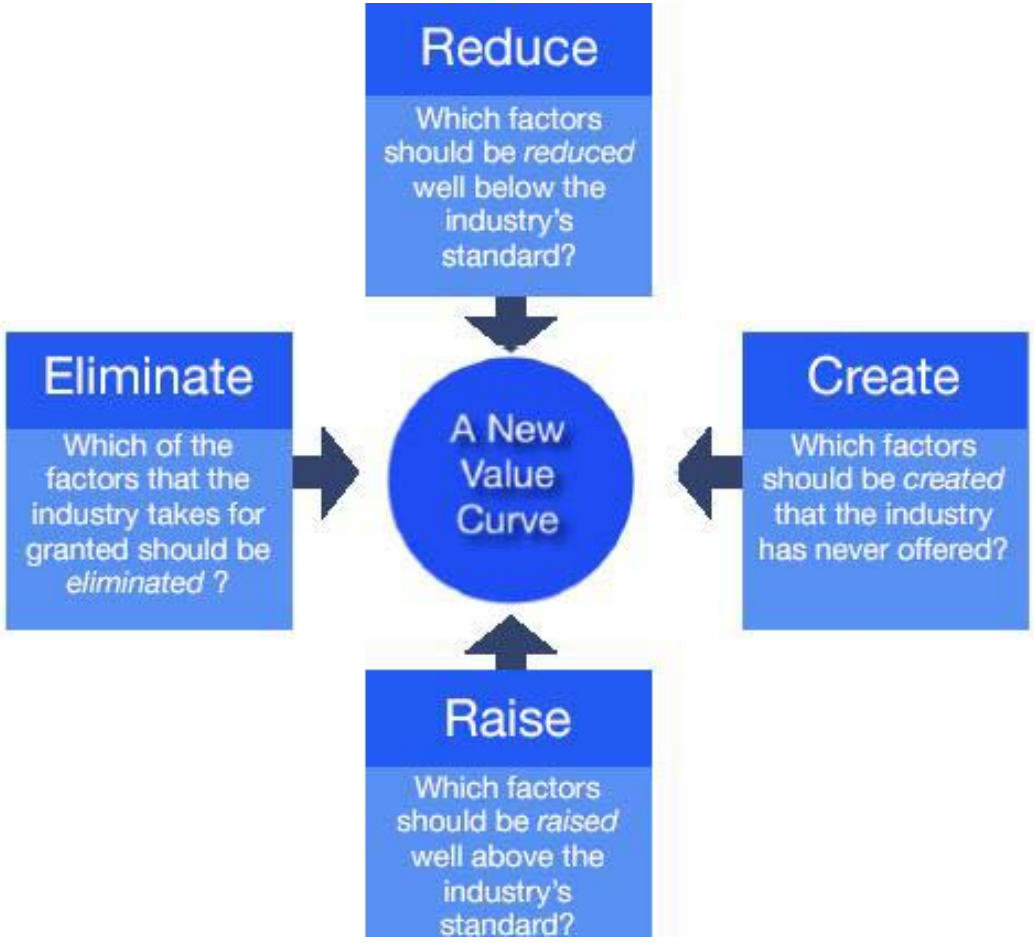
- Strategy canvas captures the current state of play in the know market place.

- Strategy canvas allows you to understand (1) where the competion is currently investing, (2) the factors the industry currently competes on in products/services, and (3) what customers receive from the existing offerings on the market.



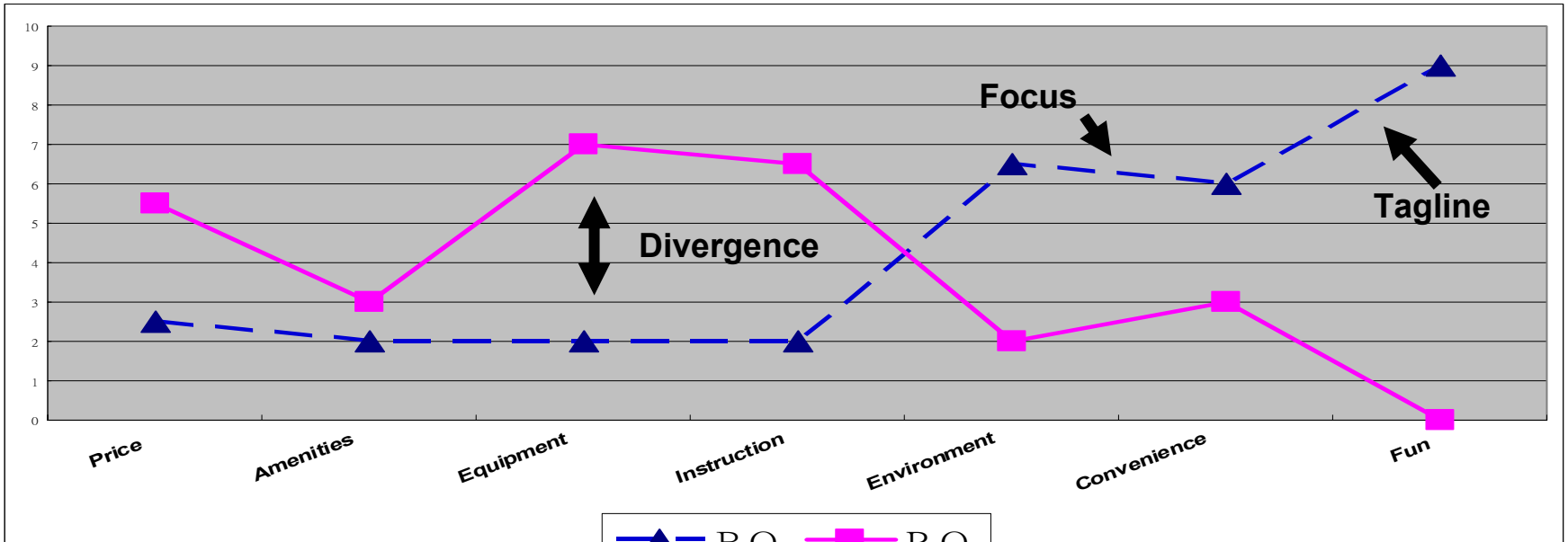
The Four Action Framework

- **The Four Steps- "Eliminate-Reduce-Raise-Create" -help achieve the desired blue ocean strategy.**



Characteristics of a Good Strategy

- **Focus: a good strategy has a focus, and a company's strategic profile should clearly show it.**
- **Divergence: the value curve of blue ocean strategy always stand apart from the competitors.**
- **Compelling Tagline: a good strategy has a clear-cut and compelling tagline.**



1.2 Principles of Blue Ocean Strategy

Six Principles of Blue Ocean Strategy

1. Reconstruct market boundaries

2. Focus on the big picture, not the numbers

3. Reach beyond existing demand

4. Get the strategy sequence right

5. Overcome organization hurdles

6. Build execution into strategy

- Principles 1-4 are formulation principles, and principles 5-6 are execution principles.

Reconstruct market boundaries

- This addresses the main issue of Blue Ocean Strategy: how to identify and search for a blue ocean market: look both at static competition and the dynamic changes in the industry.

- Six paths to examine the competition environment:

1. Look across alternative industries
2. Look across strategic groups within industries
3. Look across the chain of buyers
4. Look across complementary product and service offerings
5. Look across functional or emotional appeal to buyers
6. Look across time

Focus on the big picture

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- Most companies don't have a clear and consistent strategy planning, so they are still competing with each other in the existing market. The solution to this problem is to make a strategy canvas.

- The Four Steps of Visualizing Strategy

1. Visual Awakening	2. Visual Exploration	3. Visual Strategy Fair	4. Visual Communication
● Compare your business with competitors by drawing yours "as-is" strategy canvas. ● See where your strategy needs to change	● Explore the six paths to creating blue oceans. ● See which factors you should eliminate, create, or change	● Draw your "to-be" strategy canvas. ● Get feedback on alternative strategy canvases. ● Re-build the best "to-be" future strategy.	● Compare your before-and-after strategic profiles. ● Support only those profiles that allow your company to close the gaps to actualize the new strategy.

Reach beyond existing demand

- To maximize the size of a blue ocean, the companies need to abandon two conventional strategy practices: 1) the focus on existing customers, 2) the drive for finer segmentation to accommodate buyer differences.

- Because every company in the industry does these two things, this strategy only leads to the red oceans of bloody competition. In a blue ocean, companies need to take a reverse course, and find new customers.

- There are three tiers of non-customers, and the companies need to find the ways to reach these customers.

Get the strategy sequence right

- The companies need to build their blue ocean strategy in the sequence of buyer utility, price, cost, and adoption.

- BOI (Blue Ocean Idea) index is an index to examine the blue ocean ideas in the four dimensions:

1. Utility: Is there exceptional utility? Are there compelling reasons to buy your offering?
2. Price: Is your price easily accessible to the mass of buyers?
3. Cost: Does your cost structure meet the target cost?
4. Adoption: Have you addressed adoption hurdles up front?

- After passing the blue ocean idea index, companies are ready to shift gears from the formulation side of blue ocean strategy to its execution.

Overcome organization hurdles

- There are four hurdles in executing the blue ocean strategy: Cognitive, limited resources, motivation, and politics.
- These organizational behaviors may hamper the success of Blue Ocean Strategy.
- By clearly addressing the hurdles to strategy execution and focusing on factors of disproportionate influence, the companies can either win them over or neutralize them to actualize strategic shifts.
- Use the tipping point leadership to change the mass, focus on the extremes-people, acts, and activities that excercise a disproportionate influence on performance to achieve a strategic shift fast at low cost.

Build execution into strategy

- By organizing the strategy formulation process around the principles of fair process, the companies can build execution into strategy-making from the start.

- With fair process, people tend to be committed to support the resulting strategy even when it is viewed as not favorable or at odds with their perception of what is strategically correct for their units.

- Blue oceans will turn into red oceans eventually; however, there are some ways to set up the barriers to block the imitators, such as patent protection, network externality, and the economy of scale.

- But these ways cannot stop competitors forever and it may cost a lot of money and effort to build these entry barriers, so the companies have to keep searching for new blue oceans.

1.3 Case Study: i-mode

Telecommunication Market Metrics

- There nine metrics identify how the telecommunication competitors attempt to maintain market share and attract new customers. An understanding of each category will help us identify where value innovation can help companies break into a Blue Ocean of profitability:

1. Cost Structure
2. Customer Satisfaction
3. Coverage
4. Innovative Offerings
5. Exclusive Partnerships with Manufacturers
6. Number of Subscribers
7. Distinctiveness
8. Experimentation
9. Value to Customers

i-mode Business

- The Japanese telecommunication company NTT DoCoMo launched i-mode February 22, 1999. In the first twenty days, it gained 200,000 customers, and within six months, the customer base reached one million.

- Now i-mode has over 45 million subscribers and it is the world's most popular mobile internet service.

- DoCoMo created a new market between the PC-internet market and the cell phone voice-service market. i-mode provides internet services on mobile phones, allowing customers to browse the i-mode sites via their cell phones.

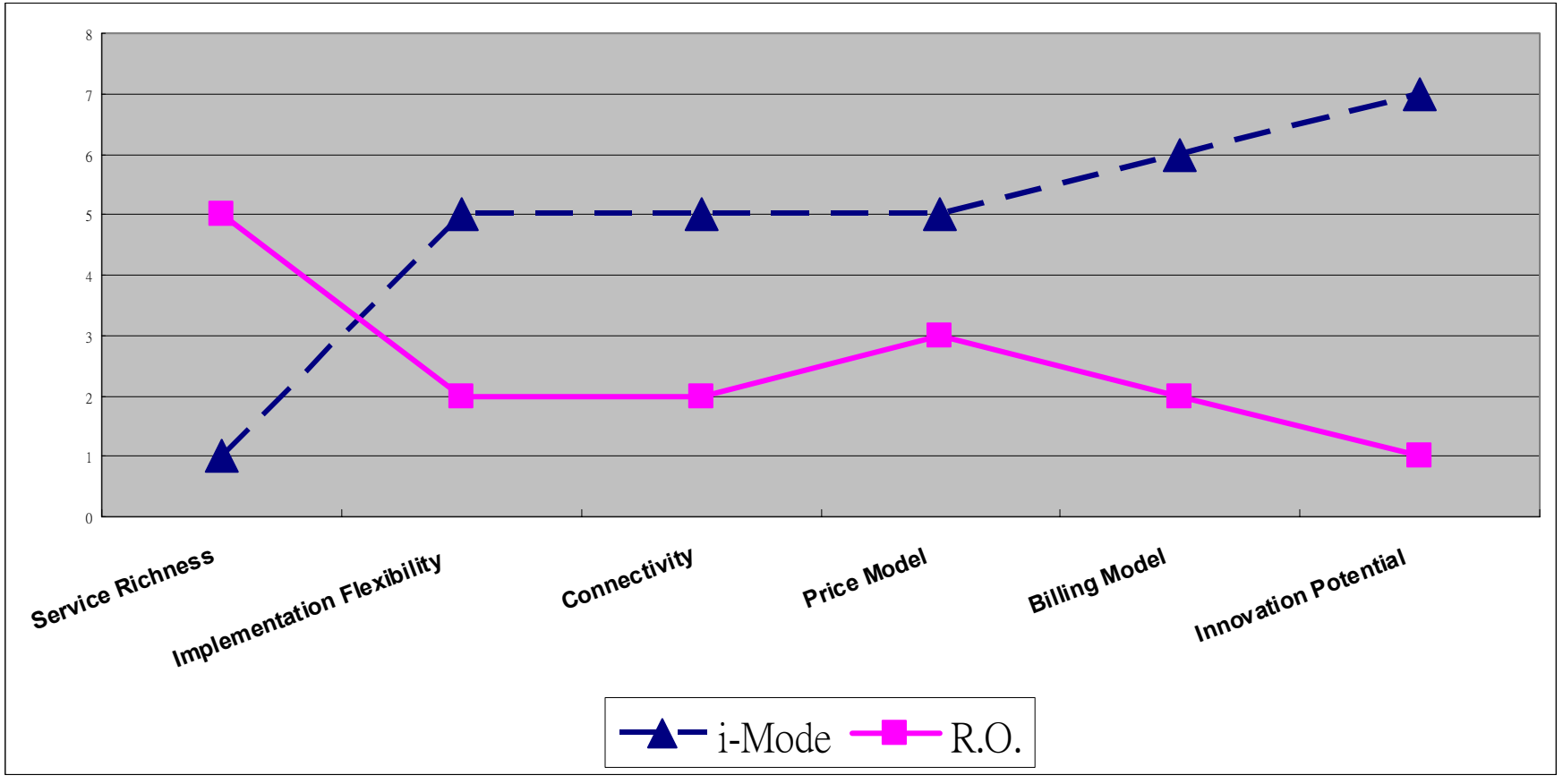
i-mode Blue Ocean

- i-mode focused on only a few key metrics: innovation, distinctive services, and experimentation.
- Micro-billing allows users to pay for value-added services through their phone bills.
- The development of c-HTML, a subset of HTML, made it easy for content providers to provide services.
- Unlike the circuit-switched networks chosen by WAP adopters in the US, the packet-switched network chosen by DoCoMo allowed for “always-on” connectivity, giving users access to i-mode services whenever they were in the DoCoMo coverage area.
- DoCoMo deems i-mode as an open platform, allowing any content provider can provide services to the customers.

Key Factors for Strategy Canvas

Attribute	Description
Service Richness	How much the service is full of applications: i-Mode provides only a few killer applications.
Implementation Flexibility	To what extent can the content providers provide new services easily: i-Mode used c-HTML, not WAP.
Connectivity	This value measures the easiness of use for connecting services: i-Mode can connect to a service in one touch button and no logging on process is needed.
Price Model	Measures a company's price competitiveness i-Mode sets the price that was attractive to the mass of buyers by creating a win-win partnership network.
Billing Model	Micro-billing allows users to pay for value-added services through i-Mode bills at one time.
Innovation Potential	A company's business system which can support innovative use and further development: i-mode, as an open platform, allows any content provider can provide services to the customers.

Strategy Canvas



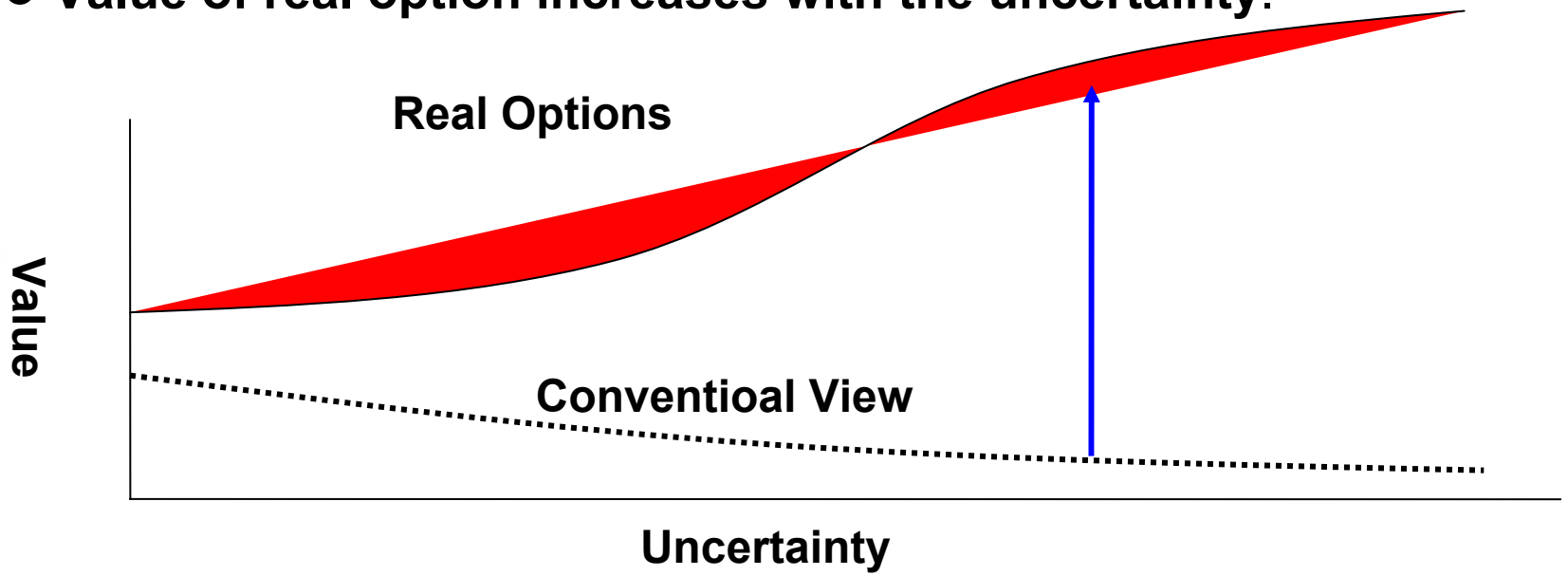
II. Real Options Based Model

What is the Real Options Theory?

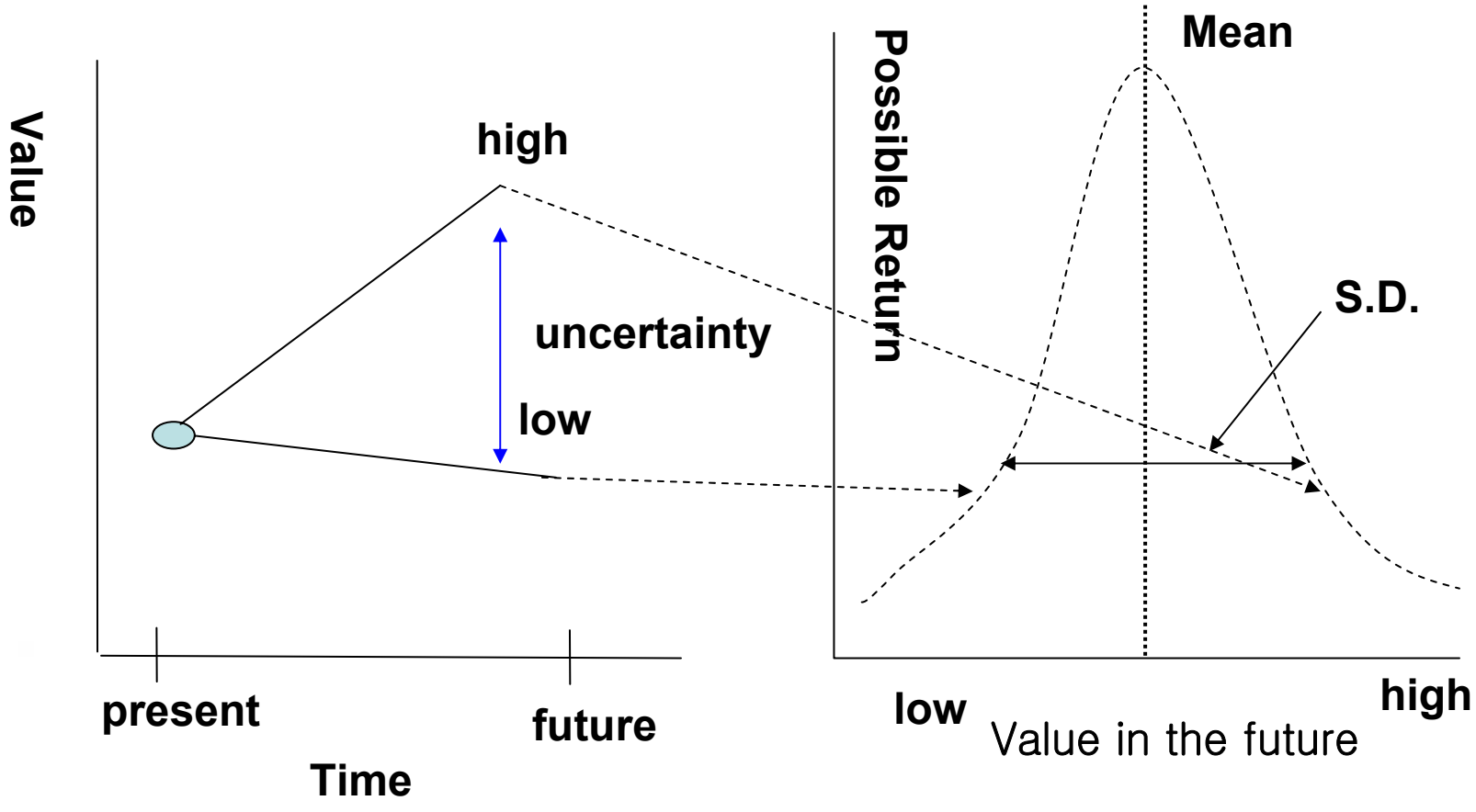
- An option is the act of choosing, the power of choice, or the freedom of alternatives. An option is a right but not an obligation.

- A “real option" is an option “relating to things” such as strategic investment and budget decisions within any organization.

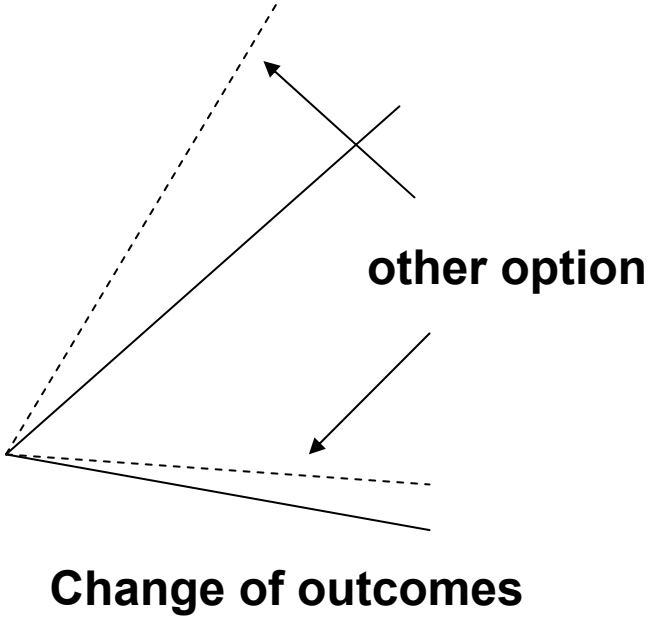
- Value of real option increases with the uncertainty.

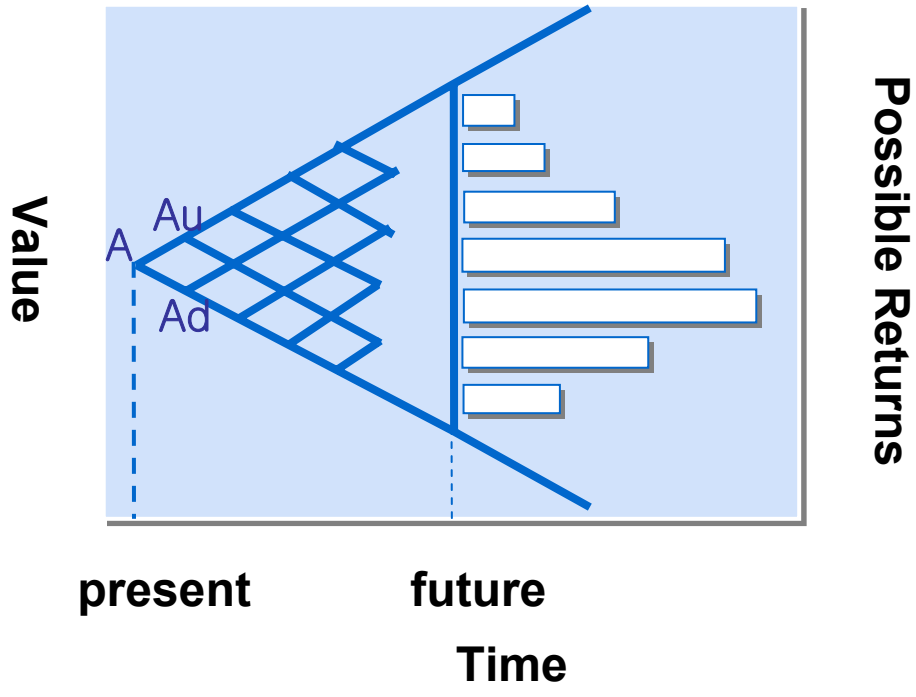


Value of Uncertainty



How we manage the uncertainty?

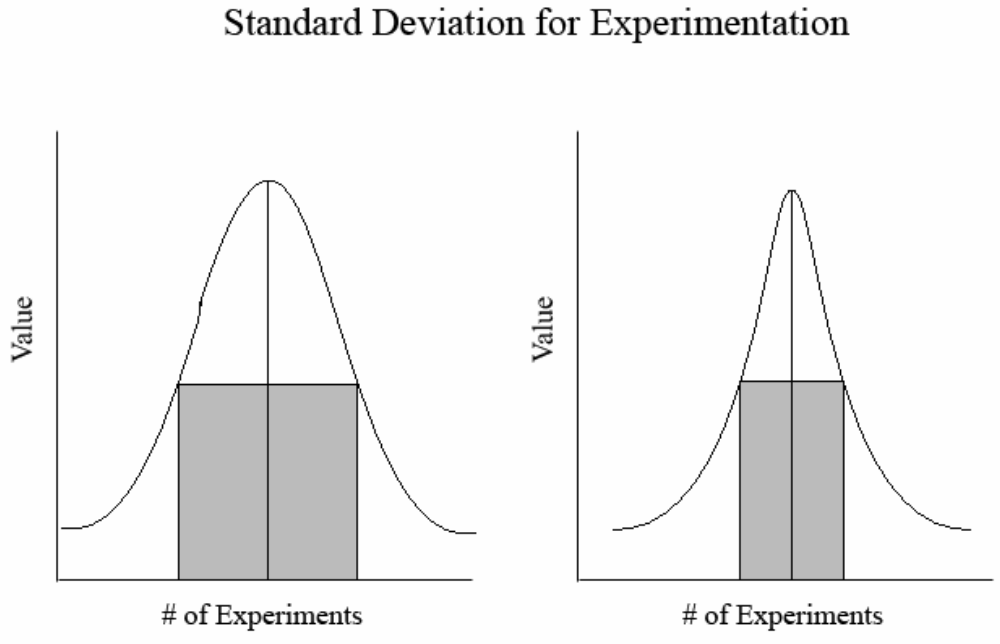




Market Uncertainty

- **Market uncertainty is the inability of vendors and service providers to predict what users will like.**

- **When there is a high market uncertainty, the value of experimentation (option) is high.**



How to measure market uncertainty?

- Ability to forecast the market: The ability to predict market trends and behavior implies low market uncertainty because it shows a basic understanding of the market.

- Emergence of a dominant design: As the dominant design is being determined, market uncertainty is decreasing as more users pick this design.

- Agreement among industry experts: Another indication of lower market uncertainty is agreement among experts about a technology and its direction.

- Feature convergence and commodity nature of a product: This convergence of features demonstrates a metric similar to that of the dominant design.

- Changes in standards activity: Stable standards mean vendors have a fixed target on which to base products.

The Bluest Ocean Strategy

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- The " bluest ocean strategy" is an options based approach to optimize the “blue ocean” strategy .

- By definition there is tremendous market uncertainty implied within blue ocean markets. However, the blue ocean methodology does not help charting a path to meet this uncertain market.

- Framing a blue ocean market within a real options model does provide a methodology to maximize the potential of a blue ocean market. One example of this is the success of the i-mode wireless network in Japan.

- The basic idea is to build infrastructure enabling experimentation in areas of the greatest market uncertainty, which is why i-mode succeeded where others failed in similar blue ocean markets.

III. Case Studies

3.1 VoIP Case Study

VoIP Services

- VoIP (Voice over Internet Protocol) technology uses packet switching technology instead of circuit switching technology to increase transmission efficiency of voice data.

- Basically, VoIP can do almost everything tradition telephony can do. “They include

1) call waiting;
2) caller ID; caller ID blocking (your number is invisible to those you call);
3) call forwarding (incoming calls are automatically routed to, say, your cell phone when you're not home);
4) call return (dial *69 to call back the last person who called you);
5) call transfer ("You'll have to ask my dad in Denver about that; here, I'll transfer you");
6) three-way calling, and more

Vonage vs Skype : Vonage

- Vonage is the leading company in VoIP market. Its strategy is to employ VoIP technology to provide cheaper telecommunication services, rather than to innovate with new features. Consequently, Vonage tries to offer customers an experience similar to that received using traditional telecommunication technology (digital switching).

- The company focuses mainly on the original phone users rather than PC users.

- Vonage reported 1.24 million subscriber lines at the end of 2005.

- Despite Vonage pioneering the VoIP area, cable companies like Time Warner are reaping the benefits. Price wars promise to get even more intense as new players like America Online enter the scene and traditional phone firms like AT&T and Verizon fight back with their own VoIP offerings.

Vonage vs Skype : Skype

- Skype is similar to MSNmessenger or Yahoo!messender, but with superior quality, which makes it a hit among the PC users. In addition to talking with other Skype PC clients, users can also call traditional phone numbers by paying the destination carrier's connection fee.

- The rate of Skype only depends on "where you are calling to, not where you are calling from".

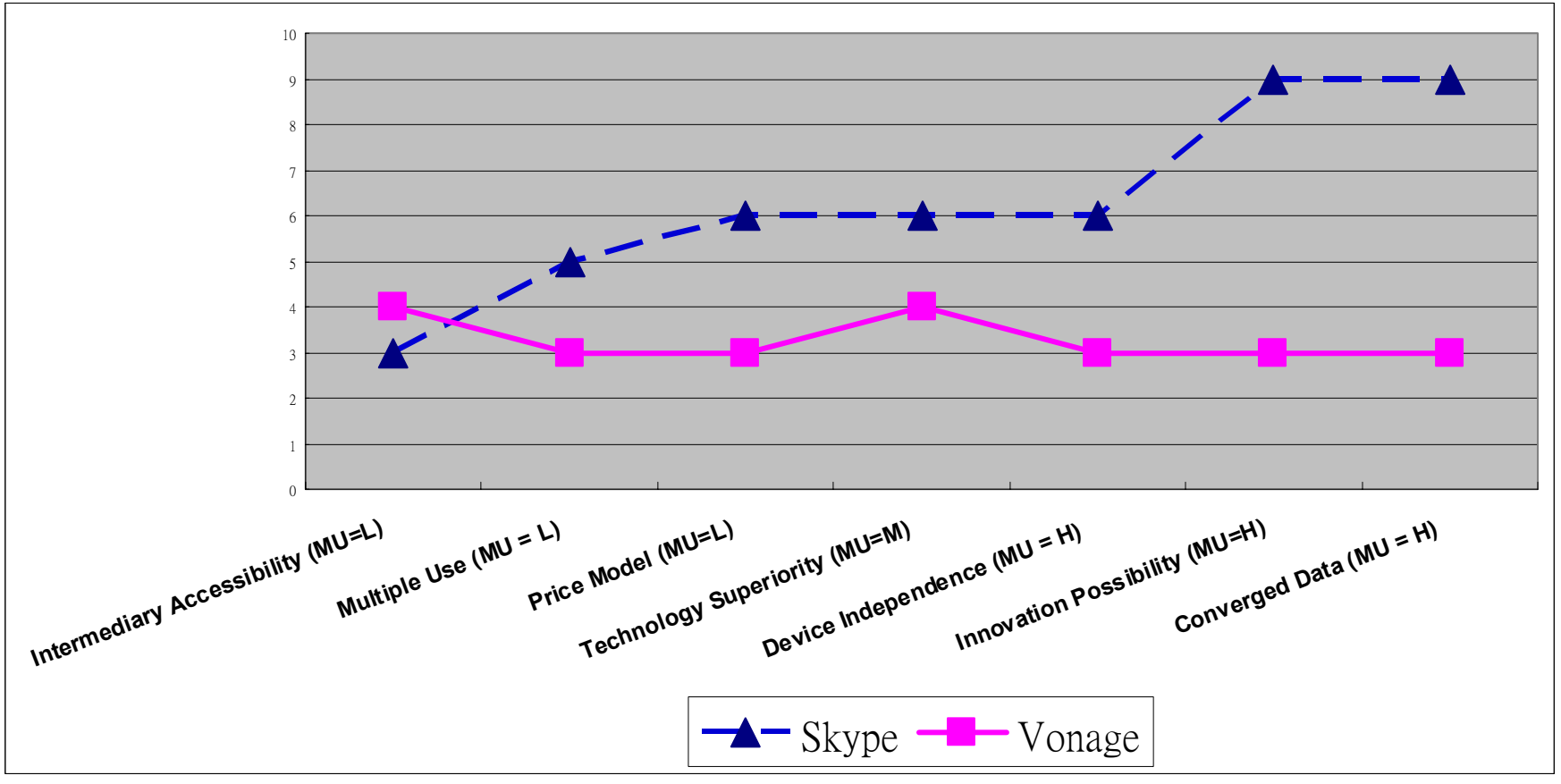
- It provides free, software-oriented telecommunication services, along with high innovation potential.

- Because Skype is built on top of the open standards of the Internet, its users have devised new uses far beyond that of traditional phone services.

Blue Ocean Factors

Attribute	Description
Intermediary Accessibility	How accessible is the company and its products/services to the market? To what degree does the company have a support model and other customer relationship building features?
Multiple Use	To what extent can the company's technology be applied to different applications?
Technological Superiority	This value measures the relative and potential technological advantages of the current firm, compared with its competitors.
Price Model	Measures a company's price competitiveness.
Device Independence	To what extent is the technology offered, not restricted to proprietary hardware and closed specifications for compatibility. Are industry standards supported?
Innovation Potential	Does the nature of the company's technology support innovative use and further development?
Converged Data	How do the company and its technologies provide a capacity for collaboration across diverse data and access

Value Canvas

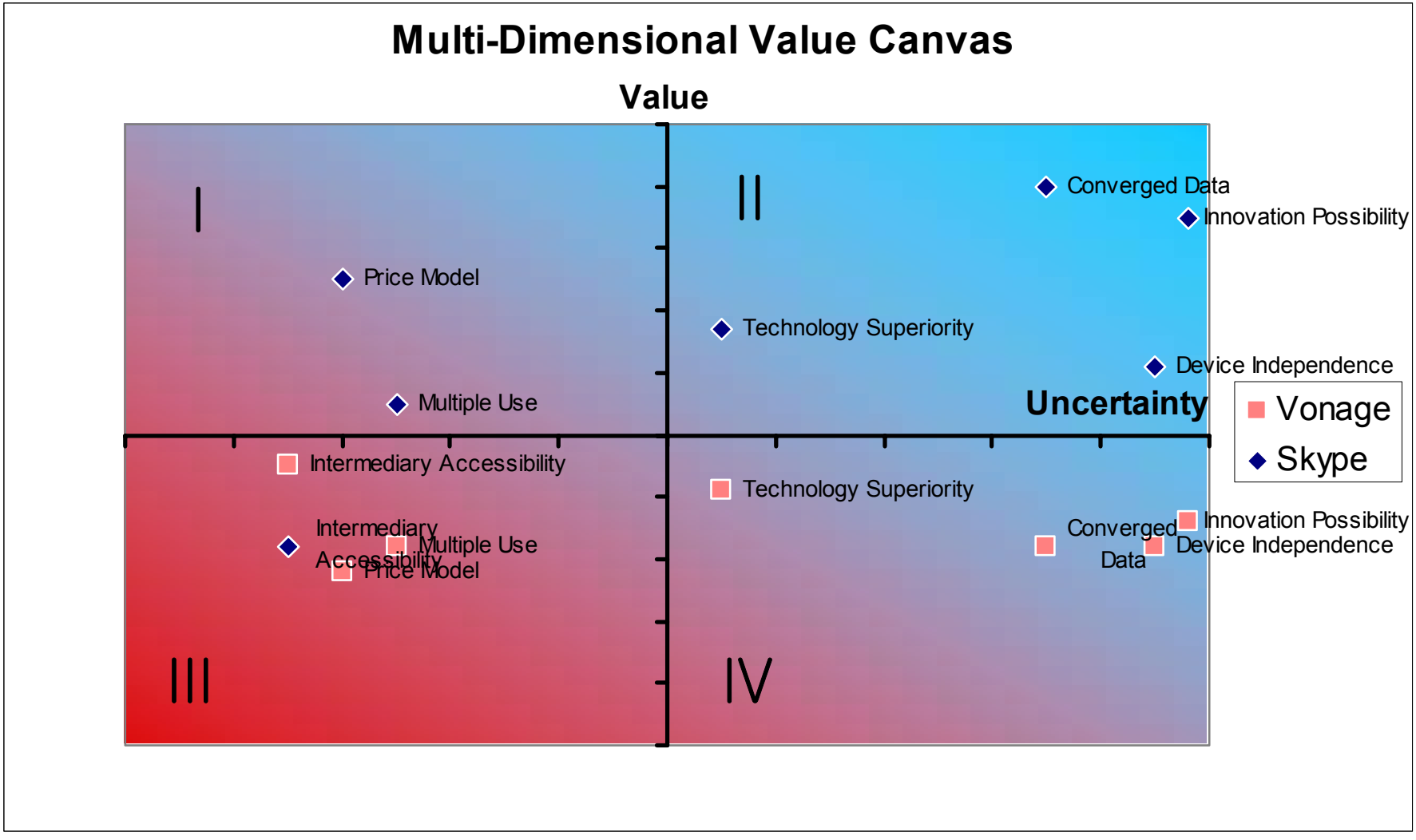


Multi-Dimensional Value Canvas

- The multi-dimensional strategy canvas plots the same qualities and factors a company competes in, as the traditional strategy canvas. However, the multi-dimensional canvas uses both the perceived value and the uncertainty associated with realizing that value, as axes.

- With two axes, the new model appears as a four-quadrant canvas, with each of the sections illustrating a different analytical interpretation. The upper and lower quadrants are distinguished by high and low ratings of competitive value. At the same time, the two left and right quadrants are easily distinguishable by the uncertainty involved in a company implementing value innovation with that characteristic.

M-Dim Value Canvas



Value of M-Dim Value Canvas

- The multi-dimensional strategy canvas is a dynamic model in that as a company implements value innovations based on the qualities mapped on the strategy canvas, the uncertainty diminishes and the data points shift into different quadrants.

- In addition, to promote a company's value innovation in certain strategy factor, the layout of this new strategy canvas encourages experimentation where the value is high. On the other hand, the quadrants where uncertainty is high increase the likelihood that undiscovered (competition-free) markets would be created through such experimentation.

3.2 RFID/USN Case Study

Current Status of RFID/USN Business

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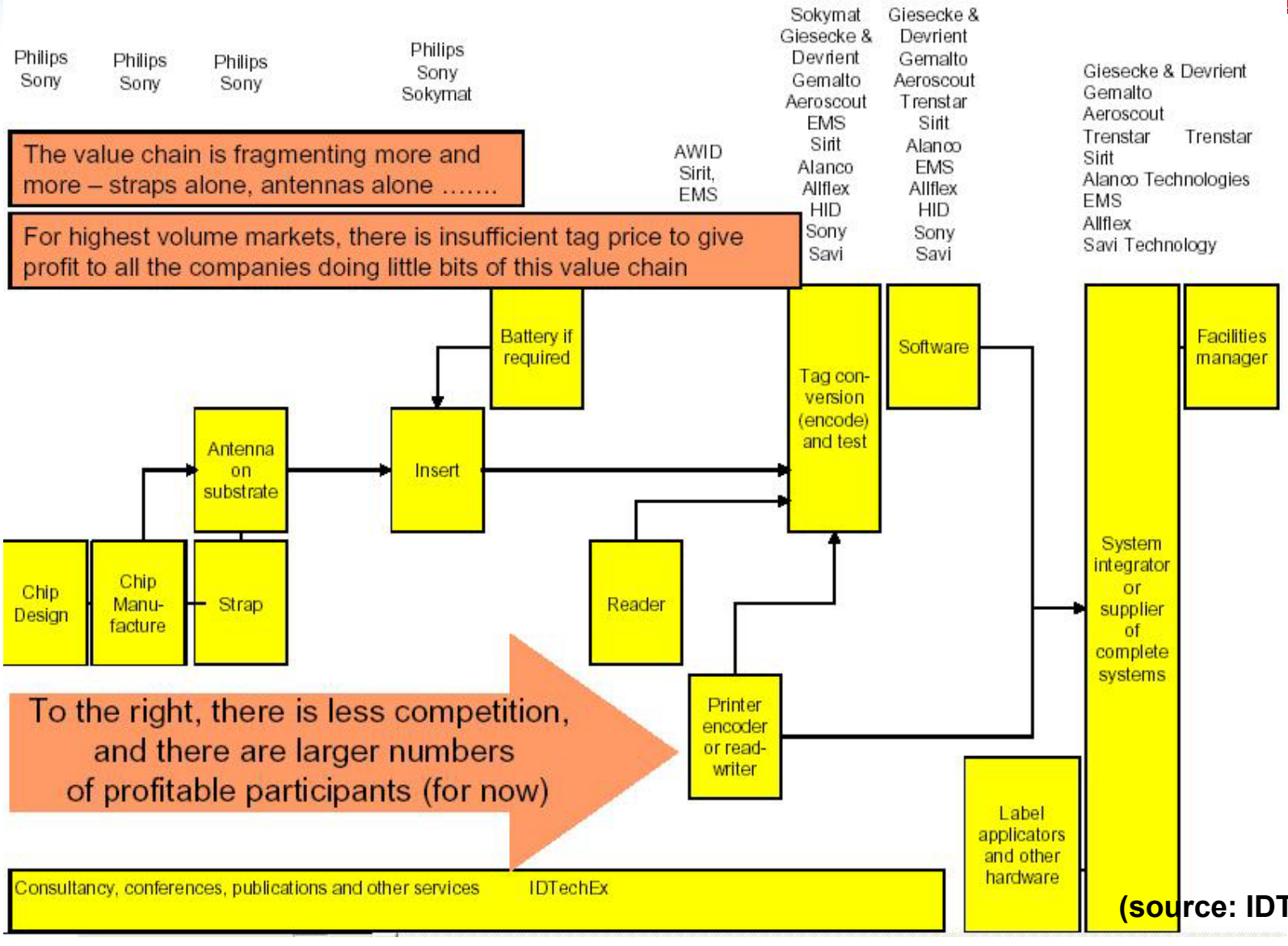
- Over the several years there has been an explosion of interest in RFID due to their rapidly expanding adoption to track items through the supply chain such as retails (Wal-Mart), Pharmaceuticals (FDA), and military (DoD).

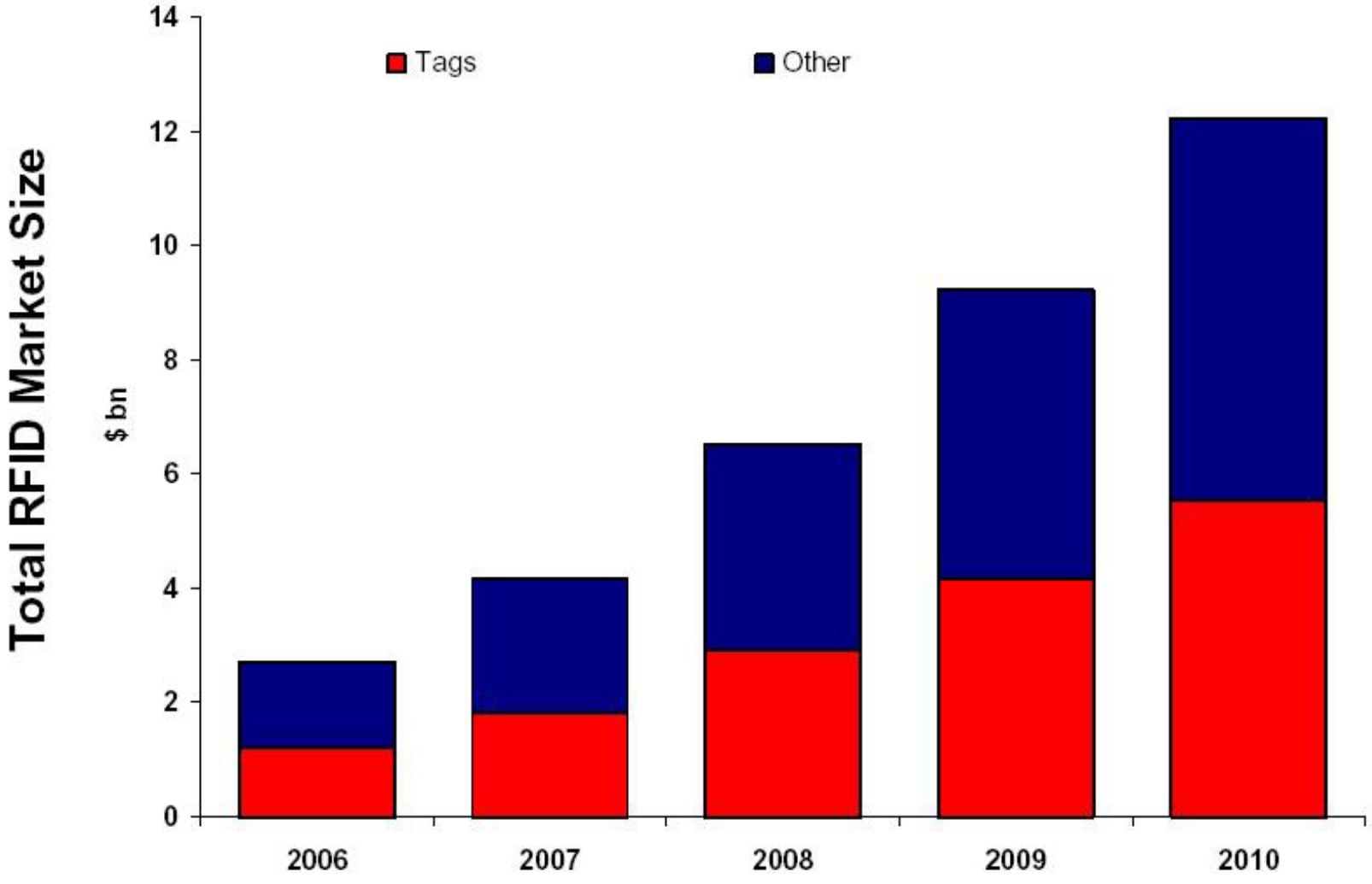
- RFID is one of a variety of ubiquitous sensor network (USN) technologies. USN system is the much more broad sense of AIDC system. The USN tag, which is usually called nod, not only getter data intelligently but pass the information data proactively. Active tag with embedded sensors is one of the present forms of the USN nods. USN nod can communicate each other and open the new M2M (Machine to Machine) applications.

RFID Value Chain



(source: IDTechEx)

RFID Market Forecasts



(source: IDTechEx)

Case Study : Savi

- The RFID/USN market is highly fragmented, and many players are competing on small niches. Up to now there was only small numbers of cases open a RFID/USN blue ocean market. One example is the Savi technology which had a $424.5 million contract with the US Department of Defense. The contract includes the range of active RFID products and services, from tags and readers to software systems.

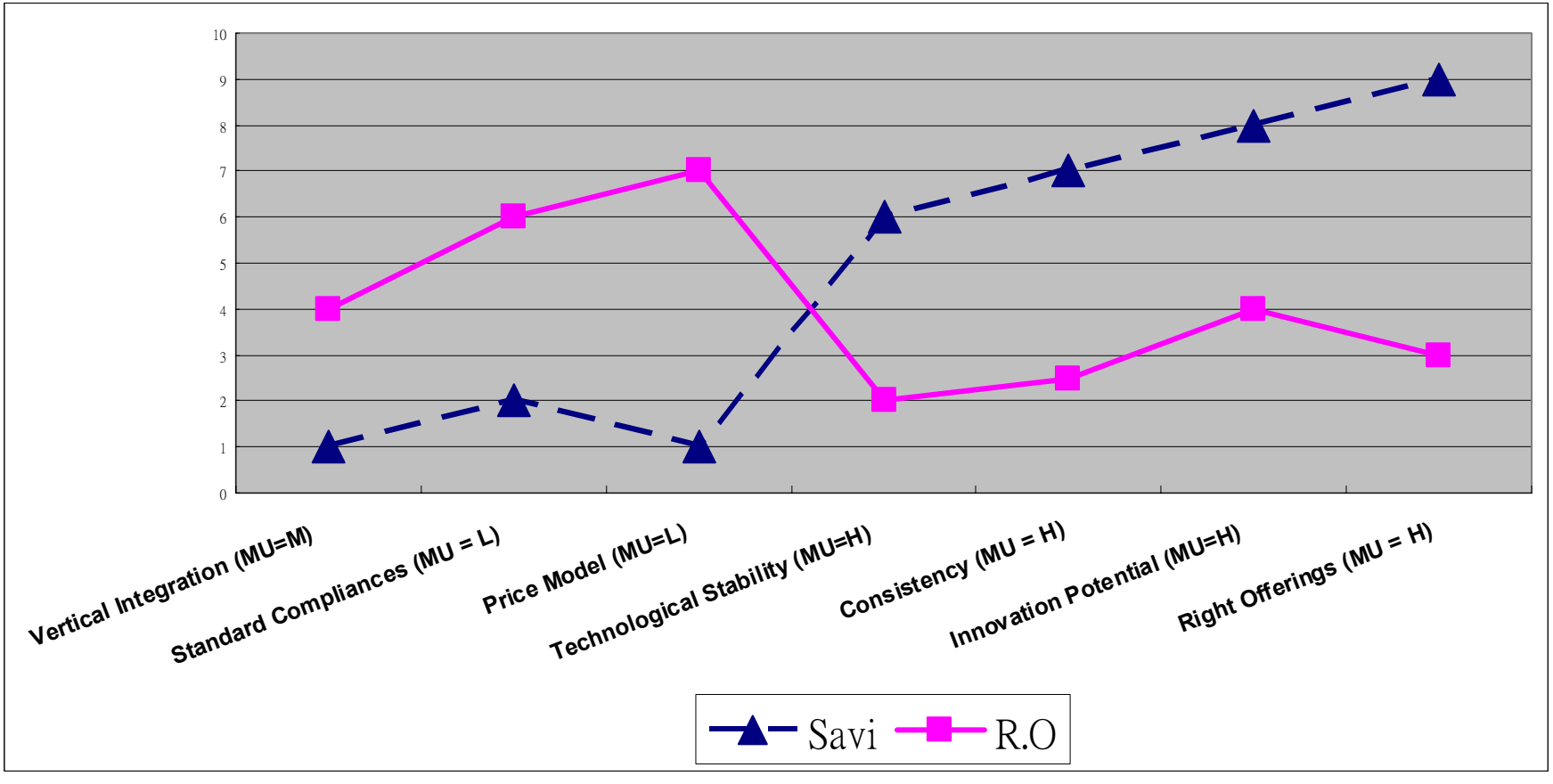
- Savi has more than fifteen years experience implementing solutions that have been proven to enhance operational efficiency, deliver substantial cost savings, reduce capital investment in supply chain assets and optimize inventory levels.

- Savi's hardware offering includes a broad range of high performance active RFID tags with sensors that monitor security and environmental conditions. Savi is the leader in RFID solutions that deliver value through real-time visibility, asset management, inventory optimization, and security.

Blue Ocean Factors

Attribute	Description
Vertical Integration	How the company and its products/services support specific applications/industry?
Standard Compliances	To what extent can the company's technology be complying with different industry standards?
Technological Stability	This value measures the technological stability of the current firm, compared with its competitors.
Price Model	Measures a company's price competitiveness.
Consistency	To what extent is the technology offered can be integrated with legacy systems?
Innovation Potential	Does the nature of the company's technology support innovative use and further development?
Right Offerings	How do the company and its technologies provide end-user values across diverse needs?

Value Canvas



Analysis of Value Canvas

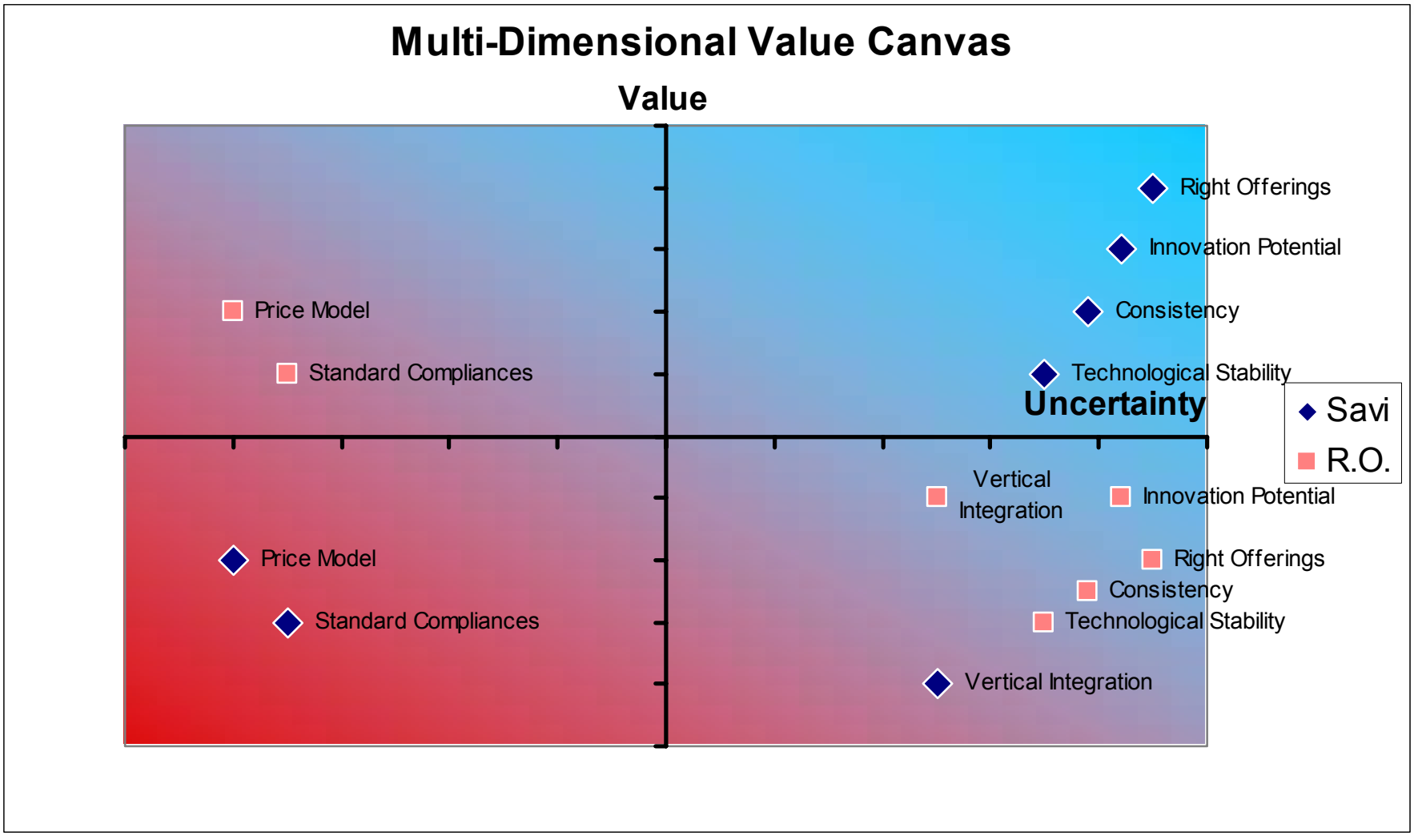
- Savi's strategy canvas shows three characteristics of a good strategy usually found in Blue Ocean cases studies:

1. Focus on factors such as consistency with the legacy system and innovation potential by developing various platforms (multi-band, active and passive, sensor tags, wireless networks).

2. Divergence from conventional competition factors such as Gen2 standard compliances and low price devices development sacrificing the technological stability in operation.

3. Compelling Tagline in right offerings for end-user values across diverse needs.

M-Dim Value Canvas



Analysis of M-Dim Value Canvas

- Savi facilitates the uncertainty and does experimentation to increase its chances of capturing valuable innovations dealing with factors in the top-right segment of the multi-dimensional strategy canvas.

- Factors such as prices and standard in the top-left quadrant offer great value to the company, while their introduction inherently involves less uncertainty. As a result of this low risk, the amount of returned value may be high, but the likelihood of creating a blue ocean is significantly reduced, as other companies will also be able to realize this value.

IV. Conclusions

Issues with Blue Ocean Strategy

- As companies seek to use value innovation to create new markets with little or no competition, they are faced with several questions:

1. In which of their technologies is there the greatest benefit or value?
2. Where should they focus their innovative energy?
3. How can the companies balance the risk associated with implementing a new technology?

- To provide answers for theses questions, we developed the "Multi-Dimensional Strategy Canvas" which can provide a picture into how a company can address these questions and which steps it should take to enter markets with untapped potential.

Conclusions

- We found that a company facilitates the uncertainty and thus does experimentation to increase its chances of capturing valuable innovations dealing with factors in high market uncertainty (factors in top-right segment of the multi-dimensional strategy canvas).

- Our analysis could be a valuable tool for a company which would like to formulate a good blue ocean strategy by the "Eliminate-Reduce-Raise-Create" framework, and thus to be a market leader in emerging ICT markets.

Thank You!

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PI's Profile

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Dr. Geunho Lee is a visiting professor at boston university's school of management.

After his Ph.D. from the Johns Hopkins University, he was in the field of ICT for 10 years working in several government organizations, small to large companies, and university research centers in Korea and the US.

Recent his activities were for RFID and u-City (ubiquitous computing city) promotion in Korea by consulting government and industry for R&D, business strategy and industry policy: he initiated the first RFID field trials and co-founded the u-City forum.

He was a senior advisor at Samsung Techwin, CJ Systems, and KT, research fellow at Korea Electronic Payment Industry Association, visiting professor at SCH university, Korea Polytech University, R&D director at Korea Wireless Networks Inc., research officer at Ministry of Information & Communication, and visiting scholar at Georgia Institute of Technology.