IT-MOT
“Linking Business & IT Strategies and Policies”

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Former IT Manager, Texas Instruments Inc. Japan

Talk Outline

- Issues of IT Departments in Japanese Companies
- CIO Position and Role
- IT Organization Enables the Whole IT Optimization
- Deploy Service Managements in IT Department
- How-to make up IT Strategies & Policies that are linking Corporate Strategies & Policies
- Q&A
Issues of IT Departments in Japanese Companies

IT Staging in Enterprise

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Companies</th>
<th>Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st stage</td>
<td>Doubtful IT asset Companies</td>
<td>15.1%</td>
<td>Deploy Computer</td>
</tr>
<tr>
<td>2nd stage</td>
<td>Partial IT Optimization Companies</td>
<td>58.8%</td>
<td>Deploy ERP, SCM, etc.</td>
</tr>
<tr>
<td>3rd stage</td>
<td>Whole IT Optimization Companies</td>
<td>21.6%</td>
<td>Improve Business Processes to enable Corporate Business growth</td>
</tr>
<tr>
<td>4th stage</td>
<td>Community level IT Optimization Companies</td>
<td>4.5%</td>
<td>Empower Business growth for community wide.</td>
</tr>
</tbody>
</table>

Achieve IT optimization with their business partner companies that make up value chain.
Case Study

2nd or 3rd Stage?

Case Study

2nd or 3rd Stage?
Case Study

2nd or 3rd Stage?

- Fukuoka University
  @fukuoka-u.ac.jp
- Waseda University
  @waseda.jp
- Ritsumeikan Asia Pacific University
  @apu.ac.jp

- Kyushu Institute of Technology (KIT)
  @ele.kyutech.ac.jp, @jimu.kyutech.ac.jp,
  @cse.kyutech.ac.jp, @cntl.kyutech.ac.jp

3rd Stage

2nd Stage

Double or Triple or more IT investments and inconvenient systems

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Issues of IT Departments in Japanese Companies

- Duplicated IT investments and complex & inefficient systems
- Purpose of IT is limited only in human resource saving and automation. Poor linkage Business & IT strategies
- Poor IT investment without improving Business Process

The Main Root Cause:
The Partial IT Optimizations without CIO
IT Governance by CIO

Build-up IT Organization

Business Strategies & Policies

The Whole Optimization for IT Systems

Planning IT Strategies & Policies

Gain Revenue and enable New Business Models

CIO Position and Role
What’s CIO?

- CIO (Chief Information Officer/首席信息官) Position
  - The Top Information Manager/最高情報責任者)/Information System Manager/情報システム担当役員)/Information Strategy Manager/情報戦略統括役員)
- Namer
  - William Synnott, Vice President, Bank of Boston, 1987
- Companies in the United States have CxO (Chief xxx Officer)
  - CEO (Chief Executive Officer)
  - CFO (Chief Financial Officer)
  - COO (Chief Operation Officer)
  - CTO (Chief Technology Officer)
  - CLO (Chief Logistic Officer)
  - CMO (Chief Marketing Officer)
  - CRO (Chief Risk Officer)
  - CSO (Chief Security Officer)
  - etc.

CIO Position and Role

- Planning & Executing IT Strategies & Policies with Business Processes
  - Not necessary IT specialist
    - The IT specialist has the evil biased to the technology.
  - Key Person to Business Innovation
**CIO Position and Role – cont.**

- IT Governance for all Departments & Business units in a company
  - Strategic differentiations by IT
  - Business Process Management/Reengineering with IT
  - IT investment & Cost management that link Business Strategies
  - Effectiveness/Efficiency/Risk Management/Security

**CIO in Japanese Companies**

- Insufficient 260K Senior IT people in Japan who includes CIO (Ref. Ministry of Public Management, 2005)
  - **15.9%, CIO**

  ![CIO in Japanese Companies Chart]

  > "出典:「情報機器の利用とIT組織」（2006年）
  > ICT Lentis株式会社、株式会社三菱総合研究所
  > [http://www.mri.co.jp/PRESS/2007/pr070726_imu02.pdf]"
### The Origin of CIO

<table>
<thead>
<tr>
<th>Department</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>IT department</td>
<td>20.1</td>
</tr>
<tr>
<td>Strategy Planning in HQ</td>
<td>12.7</td>
</tr>
<tr>
<td>Finance in HQ</td>
<td>6.0</td>
</tr>
<tr>
<td>Other Staff in HQ</td>
<td>4.1</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>3.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>3.3</td>
</tr>
<tr>
<td>External recruited</td>
<td>2.8</td>
</tr>
<tr>
<td>Others</td>
<td>3.3</td>
</tr>
<tr>
<td>Refuse to answer</td>
<td>27.0</td>
</tr>
</tbody>
</table>

### The Role of CIO

1. Implementation of the whole IT optimizations
2. Implementation of liking IT & Buz needs
2008 CIO Strategies in the United States

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Delivering projects that enable business growth</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Linking business &amp; IT strategies and plans</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Attracting, developing and retaining IT personnel</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Improving the quality of IS services</td>
<td>4</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Improving the business and IT relationship</td>
<td>5</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Implementing IT process improvements</td>
<td>6</td>
<td>12</td>
<td>*</td>
</tr>
<tr>
<td>Improving IT governance</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Building business skills in the IT organization</td>
<td>8</td>
<td>9</td>
<td>*</td>
</tr>
<tr>
<td>Use of information/intelligence in ops, products or service</td>
<td>9</td>
<td>6</td>
<td>*</td>
</tr>
<tr>
<td>Reducing the cost of IT</td>
<td>10</td>
<td>12</td>
<td>*</td>
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* New question for 2006 ** New question for 2007

出所：Gartner’s 2008 CIO Survey

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Top 10 Business Expectations to CIO in the U.S.

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<thead>
<tr>
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<tbody>
<tr>
<td>Improving business processes</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Attracting and retaining new customers</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Creating new products or services (innovation)</td>
<td>3</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Expanding into new markets or geographies</td>
<td>4</td>
<td>9</td>
<td>**</td>
</tr>
<tr>
<td>Reducing enterprise costs</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Improving enterprise workforce effectiveness</td>
<td>6</td>
<td>4</td>
<td>**</td>
</tr>
<tr>
<td>Expanding current customer relationships</td>
<td>7</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Increasing the use of information/analytics</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Targeting customers and markets more effectively</td>
<td>9</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Acquiring new companies and capabilities (M&amp;A, etc)</td>
<td>10</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

* New question for 2006 ** New questions for 2007

出所：Gartner’s 2008 CIO Survey
**Case Study**

The Whole Optimized Supply Chain Business Model

**Before**

- Order Entry
- Production Planning
- Manufacturing Managements
- Logistic
- Material Managements
- Finance

**After**

ERP

Manufacturing Managements

ERP

**Case Study**

Whole Optimized Supply Chain Business Model – cont.

Customers

- Quotations
- Order Entry
- Answering Delivery Date
- Netting
- Early Arrangement
- Production Planning
- Shipping Instructions

- Demand Forecast

- Early Arrangement

Factories

- Inventory (Devices)
- WIP
- Lot start Instructions

- Manufacturing Managements

Suppliers

- Netting
- Material Delivery Planning

- Orders

- Inventory Management Raw Materials

WEB

We

We

We

We
Case Study

Whole Optimized Supply Chain
Business Model – cont.

Advantages

- Standardization of Business Processes
- Centralization of all data (Customer, Demand, Backlog, Inventory and Factory Capacity)
- Mapping of the earliest delivery date real timely based on centered data
- Speed-up of Quotation procedures
- Enable of real time data processing by Web access via Internet/Intranet
- Empower of Online Reports. Promote of Paperless

Virtual One Factory and improve Visibility

CIO Core Competence
The U.S. vs. Japan

<table>
<thead>
<tr>
<th>Ranking</th>
<th>The U.S.</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IT Strategy &amp; Planning</td>
<td>Leadership &amp; Management skill</td>
</tr>
<tr>
<td>2</td>
<td>Whole Optimization</td>
<td>Policy &amp; Organization</td>
</tr>
<tr>
<td>3</td>
<td>Policy &amp; Organization</td>
<td>Business Process &amp; Innovation</td>
</tr>
<tr>
<td>4</td>
<td>IT Security</td>
<td>Forecasting</td>
</tr>
<tr>
<td>5</td>
<td>Leadership &amp; Management skill</td>
<td>IT Strategy &amp; Planning</td>
</tr>
<tr>
<td>6</td>
<td>Business Process &amp; Innovation</td>
<td>Capital Planning &amp; Invest Assessment</td>
</tr>
<tr>
<td>7</td>
<td>Project Management</td>
<td>Technology skill</td>
</tr>
<tr>
<td>8</td>
<td>Business Process Assessment/Procedure</td>
<td>Project Management</td>
</tr>
<tr>
<td>9</td>
<td>Technology skill</td>
<td>IT Security</td>
</tr>
<tr>
<td>10</td>
<td>Forecasting</td>
<td>Whole Optimization</td>
</tr>
<tr>
<td>11</td>
<td>Capital Planning &amp; Invest Assessment</td>
<td>Procurement</td>
</tr>
<tr>
<td>12</td>
<td>e-Governance &amp; e-Commerce</td>
<td>e-Governance &amp; e-Commerce</td>
</tr>
<tr>
<td>13</td>
<td>Procurement</td>
<td>Business Process Assessment/Procedure</td>
</tr>
</tbody>
</table>

出所: 国際CIO学会ジャーナル2007 VOL.1 日米CIOコア・コンピテンスの質的変化に関する考察、曽崎尚子、小鳥敏夫
Summary:
Concerns about CIO in Japan

- Need CIO
- IT Governance
  - The Whole Optimized IT Investments
  - Business Processes improvements by IT

Move to 3rd or 4th IT Stage

IT Organization enables the Whole IT Optimization
IT Organization History

The Centralized IT Org.  The Decentralized IT Org.  The Hybrid IT Org.

The 1970's  The 1980's & 90's  Network Era

Mainframe

• Distributed Mainframe
• Office Computer
• Minicomputer

• PC
• Client & Server Computing
• Open Systems

The Centralized IT Org. in the 1970's

The Centralized IT Org.

Mainframe

Parabola Antenna

Dum Terminal

Line Printer

Business Unit

or Division
The Decentralized IT Org. in the 1980’s & 90’s

The Hybrid IT Org. in Network Era

- IT Governance
  - HQ IT Dep. has strong governance for budget, HR, Project planning, etc.
  - Synergistic Effect: Communication between ITs in Business Unit and HQ IT
  - Standardized IT Infrastructures & Systems by the Optimized IT Investments
Issues in Japanese Companies

The Outsourcing Model

- Hard to do IT governance
  - Weak governance for budget, HR, Project planning, etc.
  - Inconsistent IT Infrastructures & Systems due to duplicated IT investments
  - Hard to optimize the Whole IT Infrastructure and System
  - Increase IT cost
  - Weak communication between each Business Unit IT organizations
  - Hard to make up IT Strategies/Planning with linked Business

The Decentralized & Outsourcing Model

The Offshore Outsourcing Model

Pros:
- People Cost reduction by payment depend on country.

Cons:
- Language barrier
- Require a time to familiarize Japanese processes
- Couldn’t keep Knowledge and Know-How due to Job hopping
The Internal Offshore IT Resources
Business Model for Global Company

Pros,
- Labor Cost reduction by payment depend on country;
- Acceleration of IT Standardizations

Cons,
- Language barrier
- Jet lag
- Couldn’t keep Knowledge and Know-How due to Job popping

By Internal Offshore (Philippine, Malaysia, etc.)

Run & Maintenance by Internal Offshore

The Software Industry Comparisons
Philippine vs. India

<table>
<thead>
<tr>
<th></th>
<th>Philippine</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer Labor Cost</td>
<td>64K~112K NT$</td>
<td>96K~128K NT$</td>
</tr>
<tr>
<td>224K to 416K NT$ in Japan</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Case Study

ISSM (International Symposium of Semiconductor Manufacturing)

Summary for making IT org.

- Deploy the Hybrid IT org to enable IT Governance and the Whole Optimized IT Investments
- Recommend Internal Offshore for Global Companies
Customer Viewpoints: Deploy Service Managements in IT Department

Shake ourselves from IT “OTAKU”

- Users’ image toward IT Dept.
  - Think about Software/Hardware centric
  - Technology aim
    - Snap up New Information Technologies
  - Don’t have Business viewpoints
  - etc.

OTAKU Group

Our activities don’t link with Business needs
Shake ourselves from IT “OTAKU”

IT Services department

What is “Service”?

Activities that provide customer “Values” with a combination of elements, Human, Object and System.

提供“Values”
What is “Service”? 

- Service is a combination with tangible and intangible things
  - The Eating and drinking service: Restraint + Customer serviceably
  - Airline service: Airplane + Onboard service
  - Educational service: School building + Lecture/Method/Contents

It is hard to verify the Quality of Service beforehand.

What is “IT Services”? 

IT Viewpoints
- Reliability of Hardware?
- Quality of Software?
- Capacity of Networks?
- Operation Procedures?
- etc.

User Viewpoints
- Contribution for the productivity?
- Cost effectiveness?
- Availability?
- Response time (comfortable)?
- etc.

Not Hospitality
The Components of IT Services

Intangible: Capability
Management Skill
Process
Organization
Experience / Knowledge

Tangible: Resource
Infrastructure
Application
Money

Human

IT Services — Users

- Can't get the Capability from outsource.
- The Capability is key component for differential IT Services.

The Excellent Eye for Emerging Technologies

The Hype Cycle

Peak of Inflated Expectations
Slope of Enlightenment
Plateau of Productivity
Trough of Disillusionment

出所: ガートナーhttp://www.gartner.co.jp/research/methodologies/research_hype.php

出所: 「ITサービスマネジメントの仕組みと活用」野村総合研究所を参考に加筆
The hype cycle for Emerging Technologies, 2005

The hype cycle for IT in Japan, 2007

Years to mainstream adoption:
- less than 2 years
- 2 to 5 years
- 5 to 10 years
- more than 10 years

Outsource: Gartner, Hype Cycle for Emerging Technologies, 2005

Outsource: Gartner, Hype Cycle for IT in Japan, 2007
**Summary for IT Services**

- It is not only the lump of Hardware/Software, but also "Service" that supports user's business, and provide IT from the business viewpoint.

- IT standpoint, it is an excellent system. But user standpoint, it is just IT tool → User does not acknowledge “Value of IT tool” without the business contributions.

- User needs not only specific functions of an application, but also Stability, Availability, Reliability and Supportability.

- Need the Excellent Eye for Emerging IT with considering the Hype Cycle.

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**How-to make up IT Strategies & Policies that are linking Corporate Strategies & Policies**
The IT Strategy & Execution Process

Case Study

The IT Strategy & Execution Process

1st Pass:
Next year Corporate Strategy & Policy meeting in Sep.

Dep. Quarterly Operation Review

Dep. Monthly Status Review

Mid Year Review in Jun

1st Pass:
Next year IT Strategy & Policy meeting in Oct.

Discussion about IT with Business Managers

Final:
Make up Next year Corporate Strategies & Policies in Dec.

Final:
Make up Next year IT Strategies & Policies in Dec.

Make up This year Regional IT Strategies & Policies and Personal Goals in Jan.
Case Study

Priorities & Metrics Process

- Business Goals
- IT Goals
- IT Themes
- Priorities (Must Do's)
- Metrics

Department Metrics
Personal Metrics

Summary

- Deploy IT Strategy & Execution Process.
- Break down IT Strategies & Policies to Personal level.
- Have Periodical Review meetings to do actions quickly.
- Have One Sheet Status form with traffic signal light to identify problems easily.
Conclusion

- To gain Revenue and enable New Business Models, the Whole IT Optimization is very important.

- CIO has to do IT Governance with strong leadership.

- IT Strategies & Policies have to link Corporate/Business Strategies & Policies.