

The 5th ANQ Congress Keynote Speech

# **Quality Award and Its Evaluation Method**

*Incheon, Korea*

*2007/10/18*

**Noriaki Kano**  
**Professor Emeritus,**  
**Tokyo University of Science**

# Profile of Dr. Noriaki KANO

## Credentials:

- Professor Emeritus, Tokyo University of Science - Doctor of Engineering (University of Tokyo)
- Honorary Doctor (Chungyuan Christian University, Taiwan)

## Engagements:

- Honorary Chairperson, Asian Network for Quality (ANQ)
- Chairman, Deming Application Prize Committee
- Board Member, Japanese Union of Scientists and Engineers (JUSE)
- Board Member, Agency for Overseas Technical Scholarship (AOTS)
- Corporate Auditor of Sekisui Chemical Ltd.
- Chair Professor, Chugyuan Christian University (Taiwan)
- Advisory Professor, Tongji University( Shanghai, China)
- Academician, International Academy for Quality (IAQ)
- Fellow, American Society for Quality (ASQ)
- 2000-2002 President, Japanese Society for Quality Control (JSQC)

## Publications:

- Over 300 papers, including "Attractive Quality"(Kano Method / Kano Model)"
- Over 35 books and chapter writings, including "Guide to TQM in Service Industries" (in English) and "Way to Breakthrough and Creation" (in Japanese).

## Honors:

- 2006 E. L. Grant Medal by American Society for Quality (ASQ)
- 2004 Harrington/Ishikawa Medal (Asia Pacific Quality Organization)
- 2002 E. Jack Lancaster Medal by American Society for Quality (ASQ)
- 1997 Deming Prize for Individuals by Deming Prize Committee (JUSE)
- 1997 The Deming Lecturer by American Statistical Association (ASA) and many others.

## Work Experiences:

- Lecturer and Associate Professor, The University of Electro-Communications
- Professor, Tokyo University of Sciences

## Education:

- Completed Undergraduate and Graduate School, Engineering School, The University of Tokyo

# About Dr. Noriaki KANO

- Dr. Noriaki Kano is well known in the quality world as the creator of Attractive Quality (Kano Model) as well as Task Achieving QC Story.
- Dr. Kano has, both domestically and internationally, been frequently invited/dispatched as lecturer by universities, international or national quality societies including ASQ, European Organization for Quality (EOQ) and JUSE and firms in over 40 countries.
- Dr. Kano retired from Tokyo University of Science (TUS) after 35 years of dedication to research and education in University of Electro-Communications and TUS.

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September, 2007

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# Why am I interested in this Subject?

- I helped one company in Asia which wished to challenge **Deming Application Prize (DAP)**.
- The management considered this as quite easy because the company promoted TQM based on **Malcolm Baldrige National Quality Award (MBNQA)** for several years and it already prepared the document based on the format of MBNQA. They thought this just as a conversion work of the formats.
- However, after starting to converge the document from MBNQA's format to DAP's format, they found many chapters which they cannot complete just by the conversion work.

# Objective of this Speech

- Discuss:
  - What Is Quality Award  
in contrast with ISO 9000 certification
  - True Objective of Challenging Quality Awards
- Compare the evaluation methods between DAP and MBNQA and discuss their differences about what to be evaluated in each of their exam processes.

# Am I An Appropriate Person for Discussing This Subject?

- I have been a DAP examiner for nearly 30 years and am now Chairman of DAP Committee.
- I have no actual experience in MBNQA and have obtained its knowledge mainly based on the literature.
- Somebody may say that a salesman of DAP is comparing it with its competitor, but I hope that the discussion in this speech may provide a new angle of their comparison.

**What Is Quality Award**

**in contrast with ISO 9000**



# Quality Award vs Quality Certification

## Quality Award

**Quality Excellence** from A Certain Viewpoint

[Example]

Deming Application Prize(DAP)

Malcolm Baldrige National Quality Award(MBNQA)

each of which focuses on **both quality and business excellence**  
based on TQM.

There are many possibilities to create new quality awards  
by creating new viewpoints.

## Quality Certification

Equivalent to or Over **A Certain Standard Level**

[Example]

ISO 9001 Certification System

## Comparison of ISO 9000/2000 Version with ISO 9000/1994 In frequency of Keywords in each of QM Principles

		9001		9004(TQM)	
Keyword for each principle			2000		2000
1	customer		39		91
2	leadership		0		7
3	involvement		1		23
4	process		47		252
5	effectiveness		19		97
5	efficiency		0		94
6	improvement		12		98
7	fact		9		54
8	supplier		8		51
The Number of Words			ca..4500		ca.11600

Each of "involvement", "effectiveness", "efficiency" and "fact" includes "involve", "effective" and "effectively", "efficient" and "efficiently" and "factual," respectively.

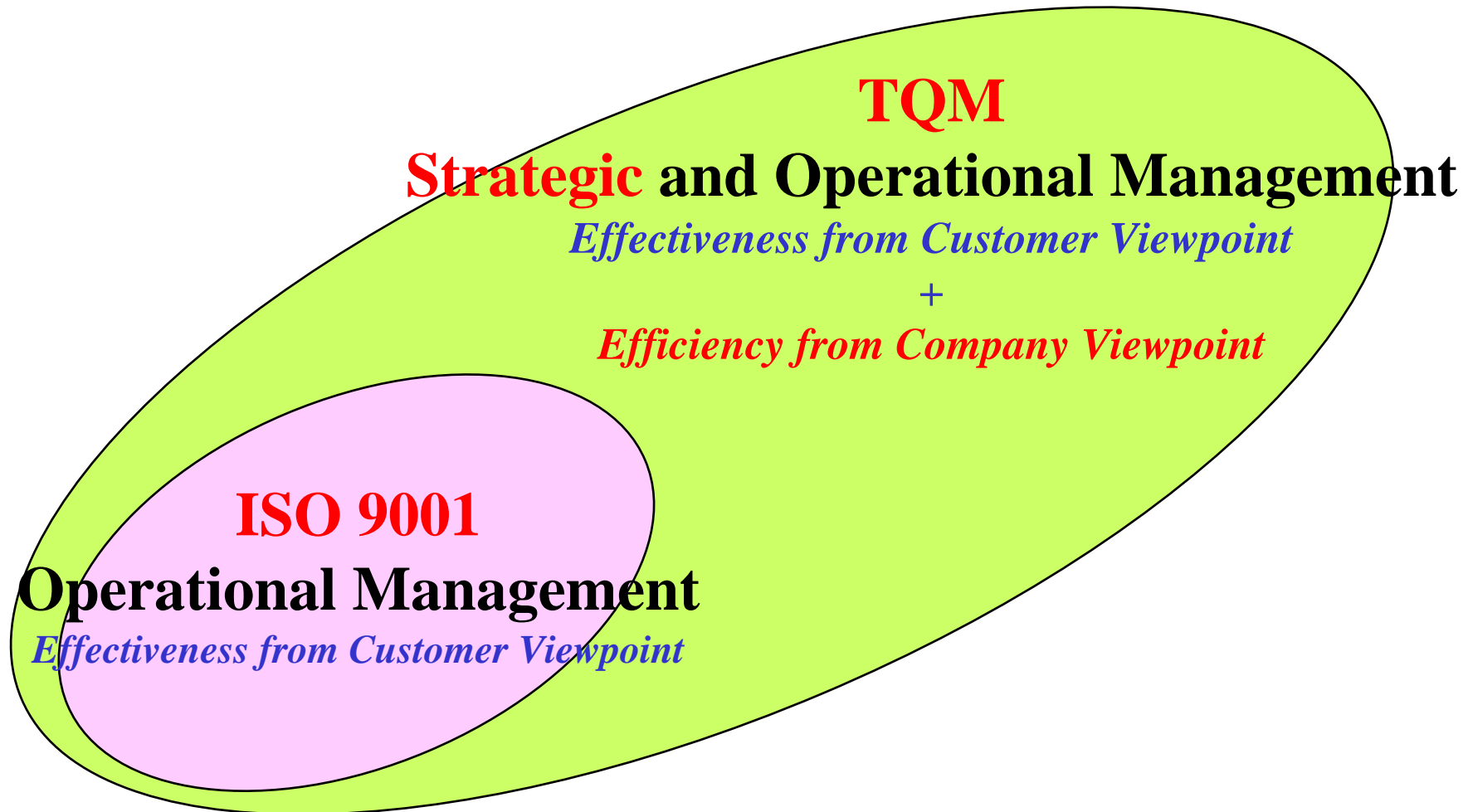
N. Kano(2002) "The Fifth Principle: System Approach to Management"

Quality Management, JUSE, No. 7(in Japanese)

Copyright, N.Kano, October, 2007

# Quality Award vs Quality Certification

## ISO 9001 vs TQM



**The Meaning  
of  
Challenging DAP  
for  
Business Success  
through TQM Promotion**

# Let's Think the Meaning of Quality Awards Challenge

## ~ Why Did Tokyo Invite Olympic Games in 1964 ~

- Toshio Suzuki, Vice Governor of Tokyo at the Olympic Game, 1964, and Governor of Tokyo, 1979 ~ 1995, describes in his Autography (Nikkei Enterprise Press, 1982)

*“Olympic Games was invited not for the sake of Olympic Games but it was invited for City Planning of Tokyo.”*

- We sometimes need **an event as a catalyst** to focus and accelerate certain promotion activities in an organization-wide way in order to realize aggressive strategies. Challenging Quality Awards will be such an event. Therefore, we must clearly understand that:

*We are not challenging Quality Award only for the sake of obtaining Quality Award, but also for the sake of realizing Business Excellence through Customer Satisfaction by improving the corporate constitution including management culture, people's thinking and management systems.*

**Comparing**  
**DAP and MBNQA**  
**in Evaluation of TQM Application**

# **Example of A Case of TQM Application**

**TCC: Thai Ceramic Tile Company**

*2004 Deming Application Prize Winner*

**W**orld

M**a**rket

Exp**a**n**s**ion

By courtesy of Dr. Prinyat, Managing Director, Thai Ceramic Tile Company

Copyright, Thai Ceramic Tile Company, 2004



# *Economic Crisis (1997)*

## **Thai Baht devalued 50%**

- Domestic demand dropped sharply
- 50% capacity utilization

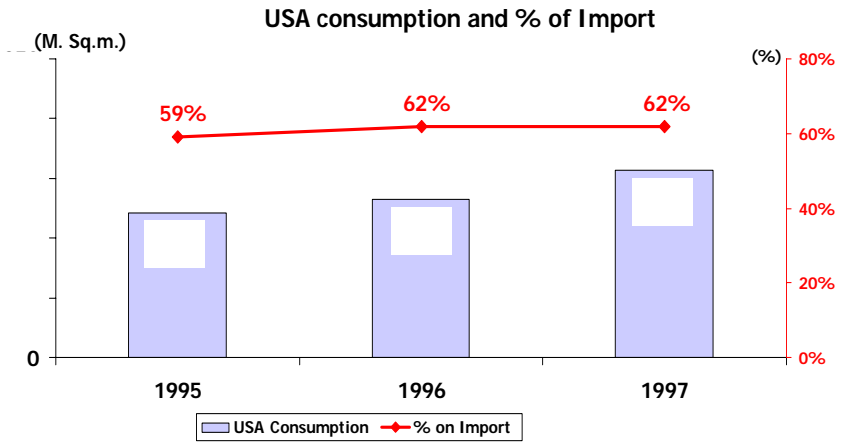
## **Shifted to export strategy from**

Export surplus → Export focus

# Key Export Markets during Crisis Overcoming

## USA : Opportunities

- + Largest importers of ceramic tile.
- + High growth of imported tile
- + Low entry barriers:
  - Import duty 12%
- + Relatively insensitive to brand and country of origin

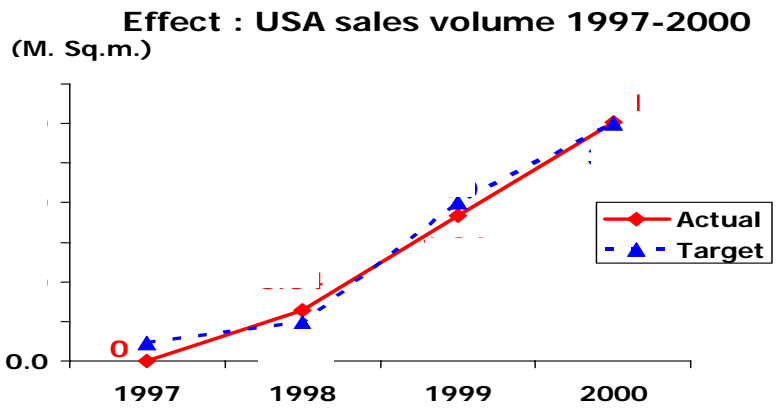
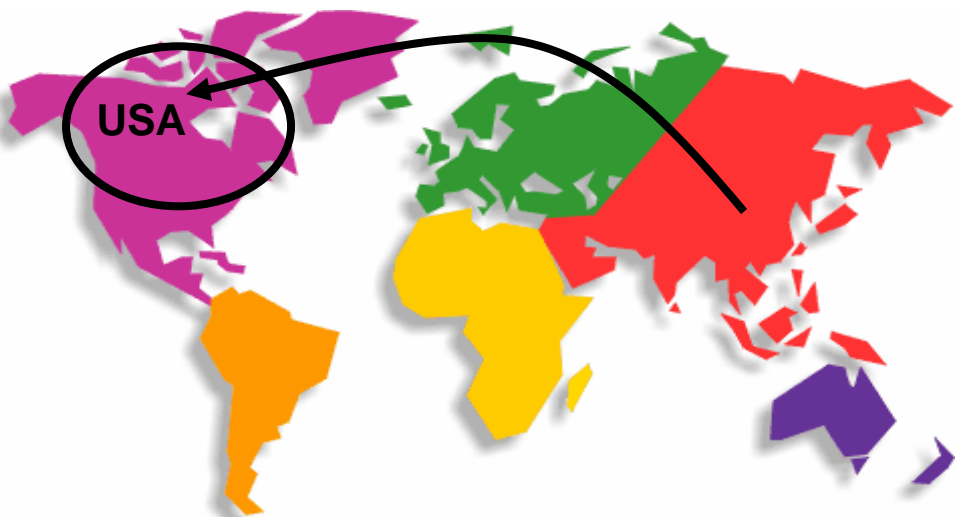


## Threats

- Very competitive >> buyer market
- No brand loyalty
- Sensitive to freight cost
  - > Ocean freight
  - > In-land transportation

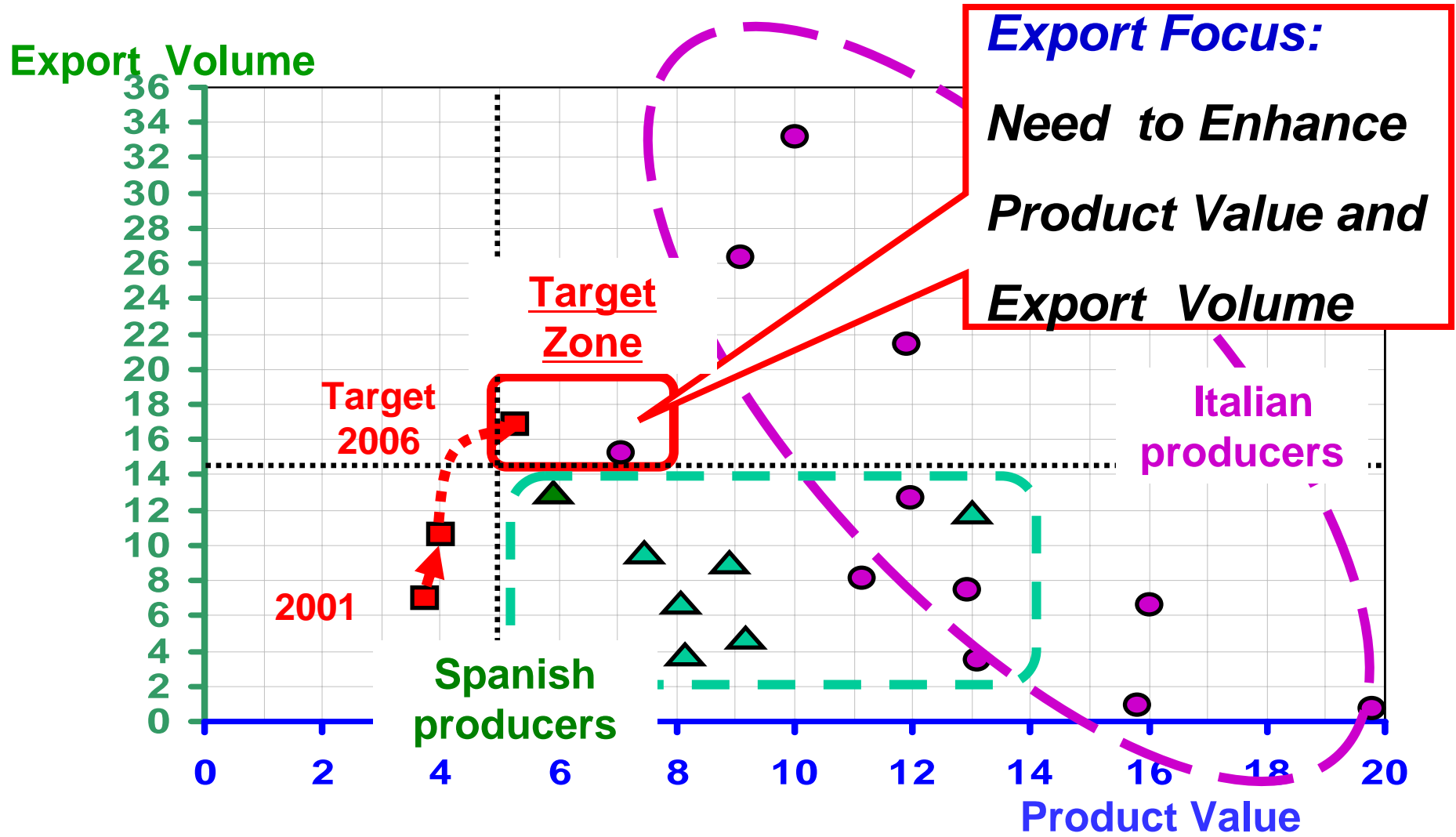
**Strategy 1998-2000:**

- Penetrate home centers by using **Low end products.**



# Becoming One of the World Leaders : 2001 onwards

## Benchmarking against Italian and Spanish Producers



**Application case :**

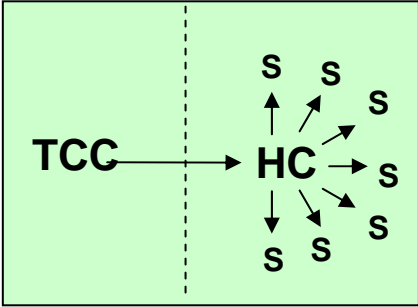
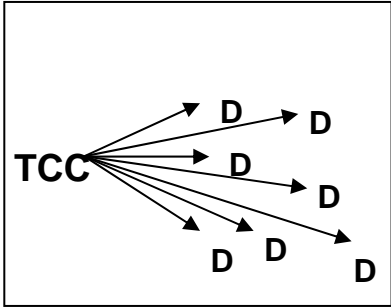
**Achieve large sales volume with**

**The Company A, USA.**

**By Using**

**Task Achieving Approach of TQM**

# US Distribution Channel Evaluation

Features / Channels	Home Centers (HC)	Distributors (D)
1. Access		
2. Market size	Small (13%)	Large (87%)
3. Number of distributors	A few (2-3 Majors)	Many & Scattered (Thousands)
4. Number of SKUs	Low	High
5. Volume per SKUs	High	Low
6. Channel growth rate	High	Medium

**Evaluation: We chose home centers as target market and Company A as our partner.**

# Product Development : Floor / Wall Coordination Program

Objective : Create programs which will generate more sales for our partner.

Product Offering Of Company A	US Ceramic Tile Consumption	Opportunities
<b>Wall Tile:</b> <b>Only 15% of total ceramic tile sales</b>	<b>Wall Tile;</b>  <b>xx% of total consumption.</b>	<b>Wall Tile:</b>  <b>More opportunity</b>
<b>Wall tiles;</b> <b>separately sold from Floor Tiles..</b>	<b>Growing trend of Wall Tiles;</b> <b>coordinated with Floor Tiles.</b>	<b>Wall Tile:</b>  <b>More opportunity in coordination with Floor Tiles.</b>









***Floor / Wall  
Coordination Program***



# Successful Scenario for Floor/Wall Coordination Program

Objective : Develop floor tile that has national appeal with attractive wall tile and decorative package.

- Select Floor Tile : Accounted for 55% of Market**
- Develop Coordinating Wall Tile & Decorative Pieces**

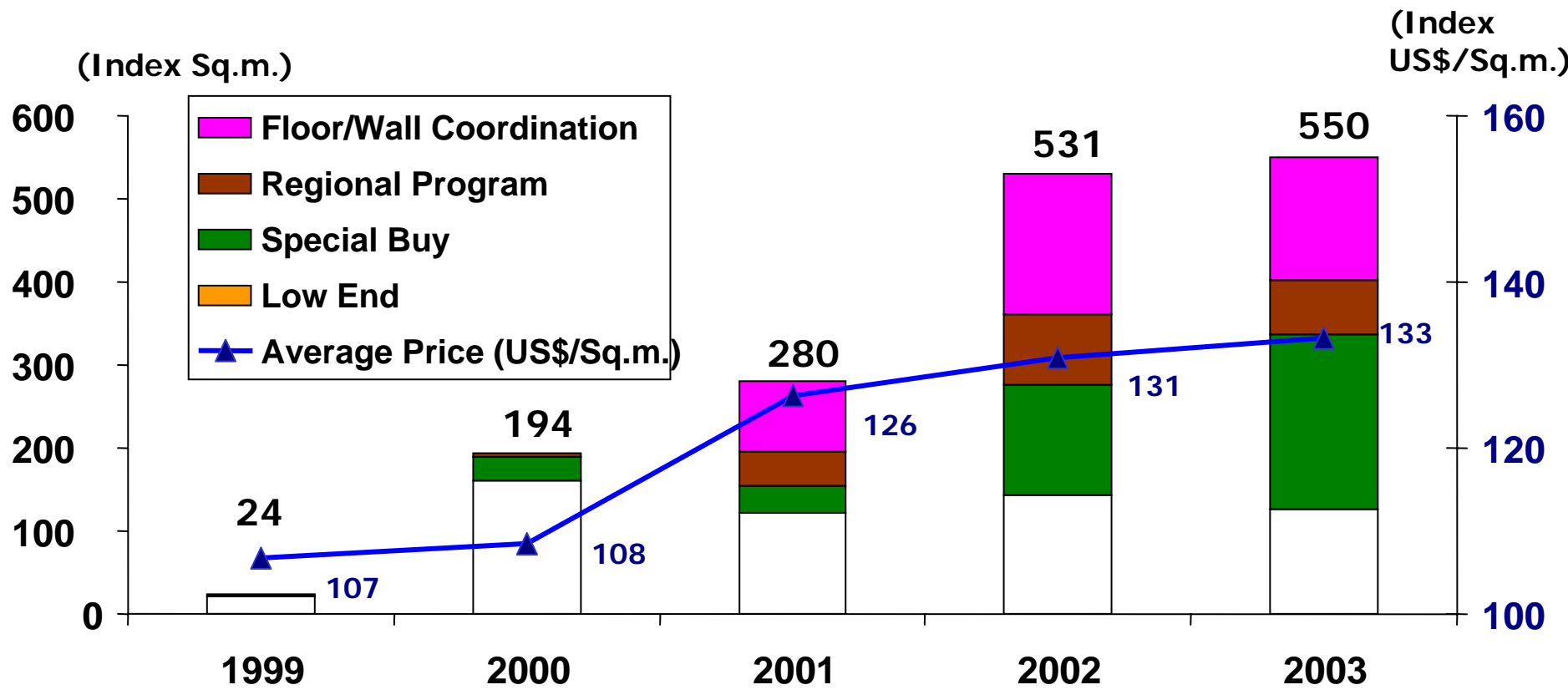
		Important	Volume	TCC Capability	
WALL TILE PROGRAM	Decorative pieces		H	H	YES
			H	H	YES
			H	M	YES
			L	L	NO
			M	L	NO
			M	M	NO

**Additional Countermeasures :**

TCC set up domestic shipping point(s) to serve decorative items directly to the partner stores.

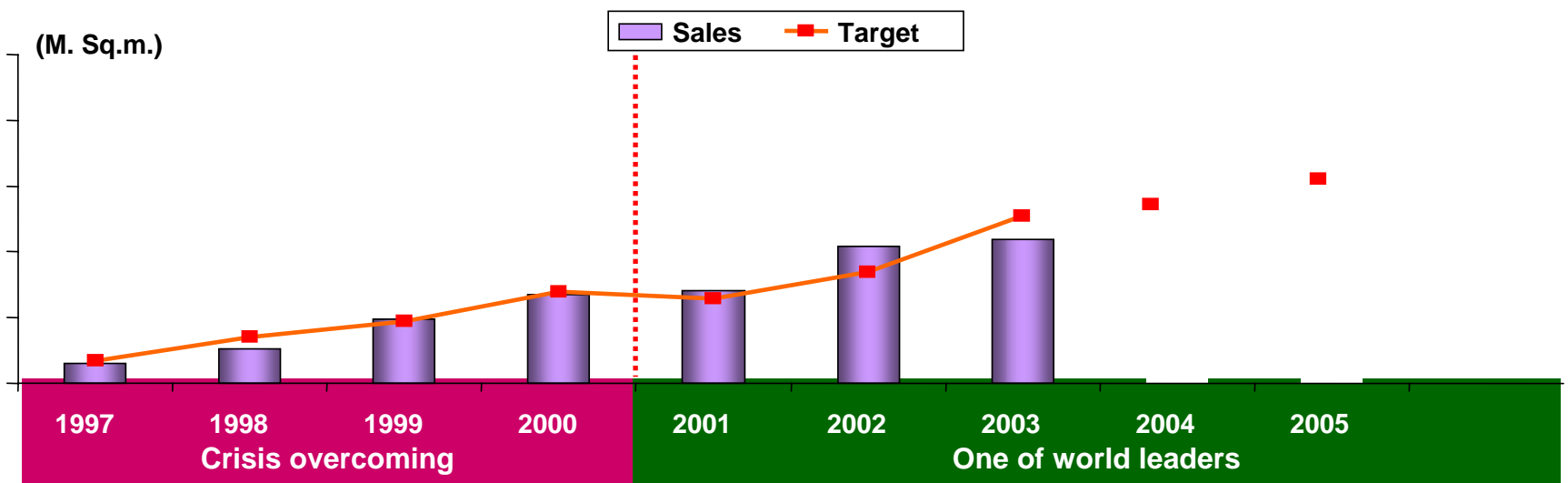
**Effects :** The partner saves xx% and TCC gains yy% extra profit from warehouse operation

# Effect : Average Price and Proportion of Each Program of the Company A





## TCC's Export Sales Volume



# Deming Application Prize



# Companies Qualified for Receiving Deming Application Prize

[www.juse.or.jp/e/deming/index.html](http://www.juse.or.jp/e/deming/index.html)

The Deming Application Prize is given to applicant companies or divisions of companies that realize the following three particulars by means of TQM.

More specifically, the following evaluation criteria are used for the examination to determine whether or not the applicant companies should be awarded the Prize:

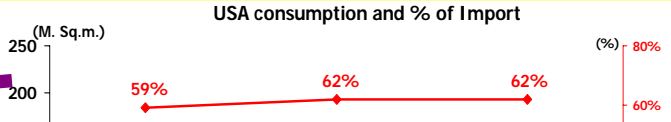
- a) Based on the management philosophy of the company, **challenging and customer-oriented business objectives and strategies**, that are suited to the business environment, have been formulated under the leadership of top management, taking into consideration the type of business, business structure and conditions, and the scale of business.
- b) **TQM has been implemented properly to achieve business objectives and strategies as mentioned in Item a) above.**
- c) As an outcome of Item b), **the outstanding effects have been obtained for business objectives and strategies as stated in Item a).**

# a) challenging and customer-oriented business objectives and strategies

Thai Ba

## Key Export Markets during Crisis Overcoming

**USA : Opportunities**



### Benchmarking against Italian and Spanish Producers

Thre

Export Volume (M.Sq.m.)

**Export Focus:**  
Need to Enhance Product Value and Export Volume

**Target Zone**

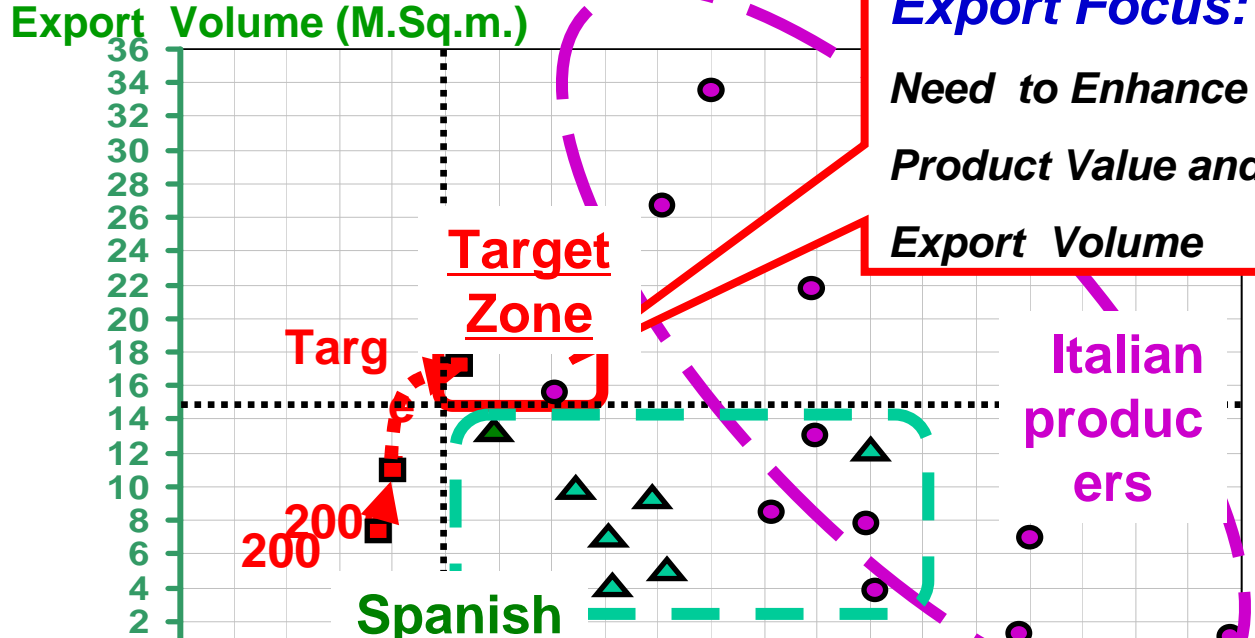
Targ

200

Spanish

Italian producers

Shift



**b) TQM has been implemented properly to achieve business objectives and strategies**

## US Distribution Channel Evaluation

**Product Development : Floor / Wall Coordination Program**

**Objective : Create programs which will generate more**

**Successful Scenario for Floor/Wall Coordination**

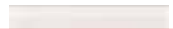





**Objective : Develop floor tile that has national attractive wall tile and decorative**

- Select Floor Tile : Accounted for 55% Market**
- Develop Coordinating Wall Tile & Decorative**

- 1. Ac
- 2. Ma
- 3. Nu
- 4. Nu
- 5. Vc
- 6. Ch

Prod  
Wall Tile  
Only 1  
total c  
Wall tiles  
separa  
Floor T

**Floor  
Coord**

	Under	Over
	H	H
	H	H
	H	M
	L	L
	M	L
	M	M

Decorative pieces

WALL TILE PROGRAM

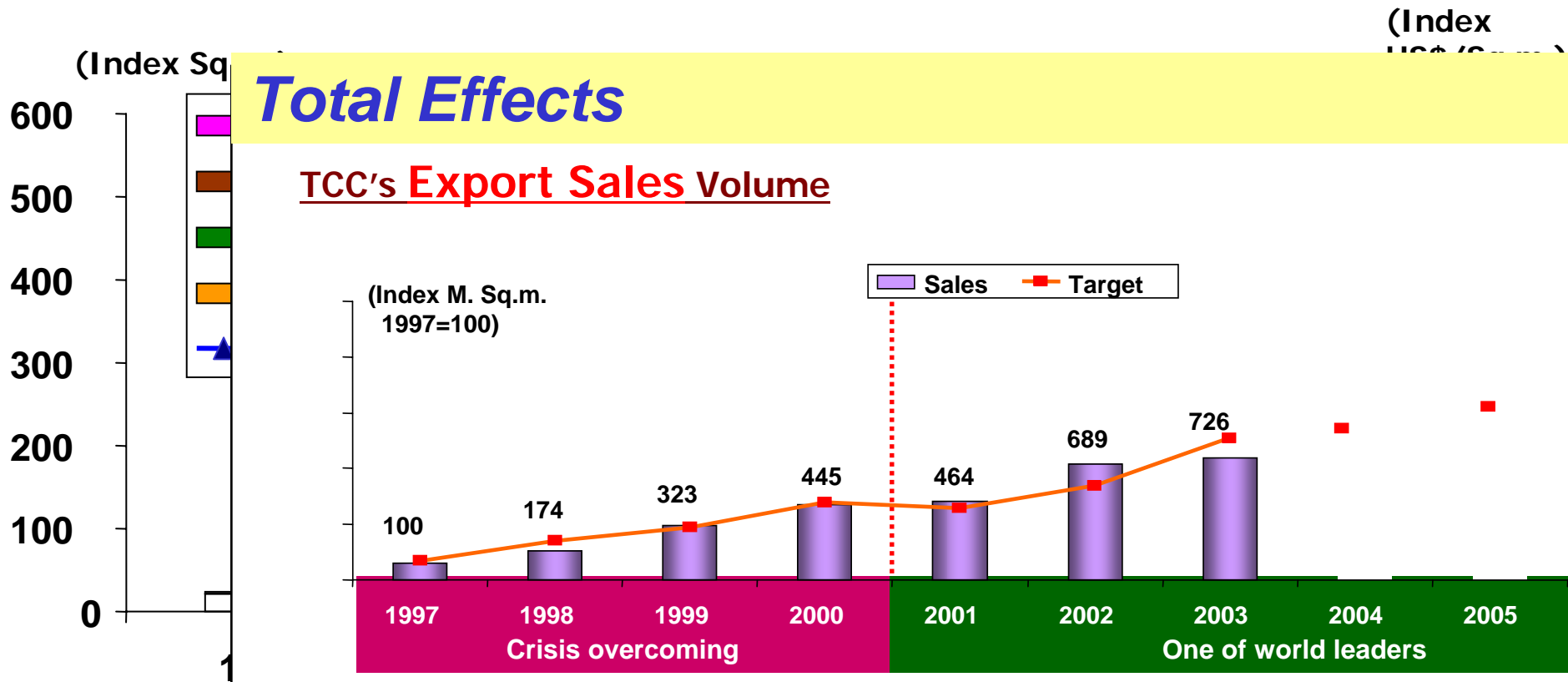
**Additional Countermeasures :**

Ac

Ta

# c) the outstanding effects

Effect : Company A's Average Price and Proportion of Each Program



# My Personal Evaluation

## a. **Challenging and customer-oriented business objectives and strategies**

- *clear and logical*

## b. **TQM**

- *application of Task Achieving,*

- *logical*

- *weak in:*

· *deep analysis of market/customer and*

· *gap analysis between target and actual*

## c. **Outstanding effects**

- *impressive*

# **Malcolm Baldrige National Quality Award**



# Malcolm Baldrige National Quality Award

<http://www.quality.nist.gov/>

- 1 Leadership
- 2 Strategic Planning
- 3 Customer and Market Focus
- 4 Measurement, Analysis, and Knowledge Management
- 5 Workforce Focus
- 6 Process Management
- 7 Results

# Malcolm Baldrige National Quality Award

<http://www.quality.nist.gov/>

## **1 Leadership 120**

- 1.1 Senior Leadership 70
- 1.2 Governance and Social Responsibilities 50

## **2 Strategic Planning 85**

- 2.1 Strategy Development 40
- 2.2 Strategy Deployment 45

## **3 Customer and Market Focus 85**

- 3.1 Customer and Market Knowledge 40
- 3.2 Customer Relationships and Satisfaction 45

## **4 Measurement, Analysis, and Knowledge Management 90**

- 4.1 Measurement, Analysis, and Improvement of Organizational Performance 45
- 4.2 Management of Information, Information Technology, and Knowledge 45

## **5 Workforce Focus 85**

- 5.1 Workforce Engagement 45
- 5.2 Workforce Environment 40

## **6 Process Management 85**

- 6.1 Work Systems Design 35
- 6.2 Work Process Management and Improvement 50

## **7 Results 450**

- 7.1 Product and Service Outcomes 100
- 7.2 Customer-Focused Outcomes 70
- 7.3 Financial and Market Outcomes 70
- 7.4 Workforce-Focused Outcomes 70
- 7.5 Process Effectiveness Outcomes 70
- 7.6 Leadership Outcomes 70

## 2 Strategic Planning

Category

### 2.1 Strategy Development: How do you develop

Sub-Category

Describe **HOW** your organization determines its **STRATEGIC CHALLENGES** and advantages. Describe **HOW** your organization establishes its strategy and **STRATEGIC OBJECTIVES** to address these **CHALLENGES** and enhance its advantages. Summarize your organization's **KEY STRATEGIC OBJECTIVES** and their related **GOALS**.

Within your response, include answers to the following questions:

Item

Development **PROCESS**

Question

- (1) **HOW** does your organization conduct its strategic planning? **What** are the **KEY PROCESS** steps? **Who** are the **KEY** participants? **HOW** does your **PROCESS** identify potential blind spots? **HOW** do you determine your **STRATEGIC CHALLENGES** and advantages, as identified in response to P.2 in your Organizational Profile?  
**What** are your short- and longer-term planning time horizons? **HOW** are these time horizons set? **HOW** does your strategic planning **PROCESS** address these time horizons?
- (2) **HOW** do you ensure that strategic planning addresses the **KEY** factors listed below?  
**HOW** do you collect and analyze relevant data and information pertaining to these factors as part of your strategic planning **PROCESS**:
  - your organization's strengths, weaknesses, opportunities, and threats
  - early indications of major shifts in technology, markets, **CUSTOMER** preferences, competition, or the regulatory environment
  - long-term organizational **SUSTAINABILITY**
  - your ability to execute the strategic plan

<http://www.quality.nist.gov/>

**b. STRATEGIC OBJECTIVES**

# Malcolm Baldrige National Quality Award

**7 Categories**  
**18 Subcategories**  
**64 Items**  
**121 Questions**

**27 “What” Questions**  
**1 “Who” Question**  
**1 “When” Question**  
**0 “Where” Question**  
**0 “Why” Question**  
**92 “How” Questions**

**Comparison  
of  
DAP and MBNQA  
in preparing Exam Document**

# MBNQA Format of Document for Exam

## Describe by Sub-Categories

<b>1 Leadership 120</b> 1.1 Senior Leadership 70 1.2 Governance and Social	
<b>2 Strategic Planning 85</b> 2.1 Strategy Development 40 2.2 Strategy Deployment 45	
<b>3 Customer and Market Focus 85</b> 3.1 Customer and Market Knowledge 40 3.2 Customer Relationships and	
<b>4 Measurement, Analysis, and Knowledge Management 90</b> 4.1 Measurement, Analysis, and Improvement of Organizational 4.2 Management of Information Technology	• • •
<b>5 Workforce Focus</b> 5.1 Workforce Engage 5.2 Workforce Environment	
<b>6 Process Management 85</b> 6.1 Work Systems Design 35	

Rather Easier to Document and Examine, but difficult to check PDCA

# DAP Format of Document for Exam

## Describe by Strategy/Case

<b>2 Strategic Planning 85</b>	Strategy 1	Strategy 2	...	Case 1	Improvement	Case 2	Improvement	...
2.1 Strategy Development 40								
2.2 Strategy Deployment 45								
<b>3 Customer and Market Focus 85</b>								
3.1 Customer and Market Knowledge 40								
3.2 Customer Relationships and								
<b>4 Measurement, Analysis, and Knowledge Management 90</b>								
4.1 Measurement, Analysis, and Improvement of Organizational								
4.2 Management of Information, Information Technology, and Knowledge								
<b>5 Workforce Focus 85</b>								
5.1 Workforce Engagement 45								
5.2 Workforce Environment 40								
<b>6 Process Management 85</b>								
6.1 Work Systems Design 35								
6.2 Work Process Management and Improvement 50								
<b>7 Results 450</b>								
7.1 Product and Service Quality								
7.2 Customer Satisfaction								
7.3 Financial and Operational Performance								
7.4 Workforce Effectiveness								
7.5 Process Effectiveness								
7.6 Leadership Outcomes								

More business linked and  
Easier to check PDCA but  
rather difficult to document and  
examine

# **Analogical Interpretation**

## *with Employment Exam*

- **Recruiting Freshmen**

Paper tests by specified subjects such as:

common knowledge, technical knowledge, English, ...

**Malcolm Baldrige National Quality Award**

- **Recruiting Experienced Persons**

Interview a person to hear a few successful cases based on his/her professional experiences

**Deming Application Prize**



# Analogical Interpretation

## *with Entrance Exam to University and Doctoral Exam*

- **Entrance Examination to University**

Paper tests by specified subjects such as:

math, physics, chemistry, English, ...

### **Malcolm Baldrige National Quality Award**

- **Examination of Doctoral Dissertation**

Dissertation Exam to inspect:

a. originality of theme

challenging and customer-oriented business  
objectives and strategies,

b. validity in demonstration by logic and data to lead  
conclusion

proper TQM application ,

c. clear conclusion along with the theme

outstanding effects

### **Deming Application Prize**

# *Jitsuryoku* vs Nouryoku

Japanese

Chinese

Korean

Jitsuryoku

Shili

Shil lyok: **actual power**

Noryoku

Nengli

Nung lyok: **potential power**

# Ability vs Capability

From Webster

ism —Allan Nevins & H.S. Commager) (a priest . . . an *able* one, by all means, not only devoted, but resourceful and intelligent —Willa Cather) **CAPABLE** is commonly interchangeable with **ABLE** in this sense. **It is more likely than ABLE to be used in situations involving possibilities and potentialities** (democracy alone has constructed an unlimited civilization *capable* of infinite progress —F.D. Roosevelt) (a being . . . more *capable* of feeling than even the most gifted of common

ca·pa·bil·i·ty

2. Often **capabilities** . A talent or ability that **has potential** for development or use: *a student of great capabilities.*

**The American Heritage Dictionary of the English Language, Third Edition** copyright 1992 by Houghton Mifflin Company.

# *Jitsuryoku* vs *Nouryoku*

*Ability* vs *Capability*

Japanese

Chinese

Korean

Jitsuryoku

Shili

Shil lyok:

actual power

**ability**

Noryoku

Nengli

Nung lyok:

potential power

**capability**

# Conclusion

## *What Is Evaluated in DAP and MBNQA exam processes?*

In DAP exam process, **actual cases** of TQM application is evaluated. **Therefore, we evaluate in DAP process whether it has the ability of TQM application or not.**

In MBNQA exam process, on the other hand, the performance for the specified categories, or, **elements** of TQM practices, is evaluated. This proves that a company which get a high point in the exam has the **potentiality** to perform actual cases. However, as a freshman who is excellent in the exam of each specified subject can not always successful in actual work, the company cannot always successfully apply the elements to actual cases.

**Therefore, we evaluate in MBNQA process whether it has the capability of TQM application or not**

# **Thank you!**

**Arigato-Ohkini-XieXie-Dosha-Kamshahamnida -  
Bayarlalaa-MahaloNui-Gamsahamnida-Terimakasih-  
Salamat -CamOn -KobKunKrub-Dhanyavaad-  
Dhanyabaad-Stutiya-Shukria-Mamnoon-SepasGozaram-  
Motshakeram-Toda-Shukran-AsanteSana-NaGode-  
TeshekkürEderim-Efharisto-Grazie -Grazzi- Gracias--  
Obrigado-Merci-Danke-DankU-Tak-Kitos -Dankie-  
Jinkua-Go Raibh Maith Agat-Spasibo-KoeSoeNoem-  
Blagodaram-**

**Then, Thank You Again!** (as of 98/6)