

## Lecture No. 7: Concept of Competitiveness and Its Factors

1. Concept of Competitiveness

2. Factors of Competitiveness

Cost

Quality

Delivery

Flexibility

Takahiro Fujimoto

Department of Economics, University of Tokyo

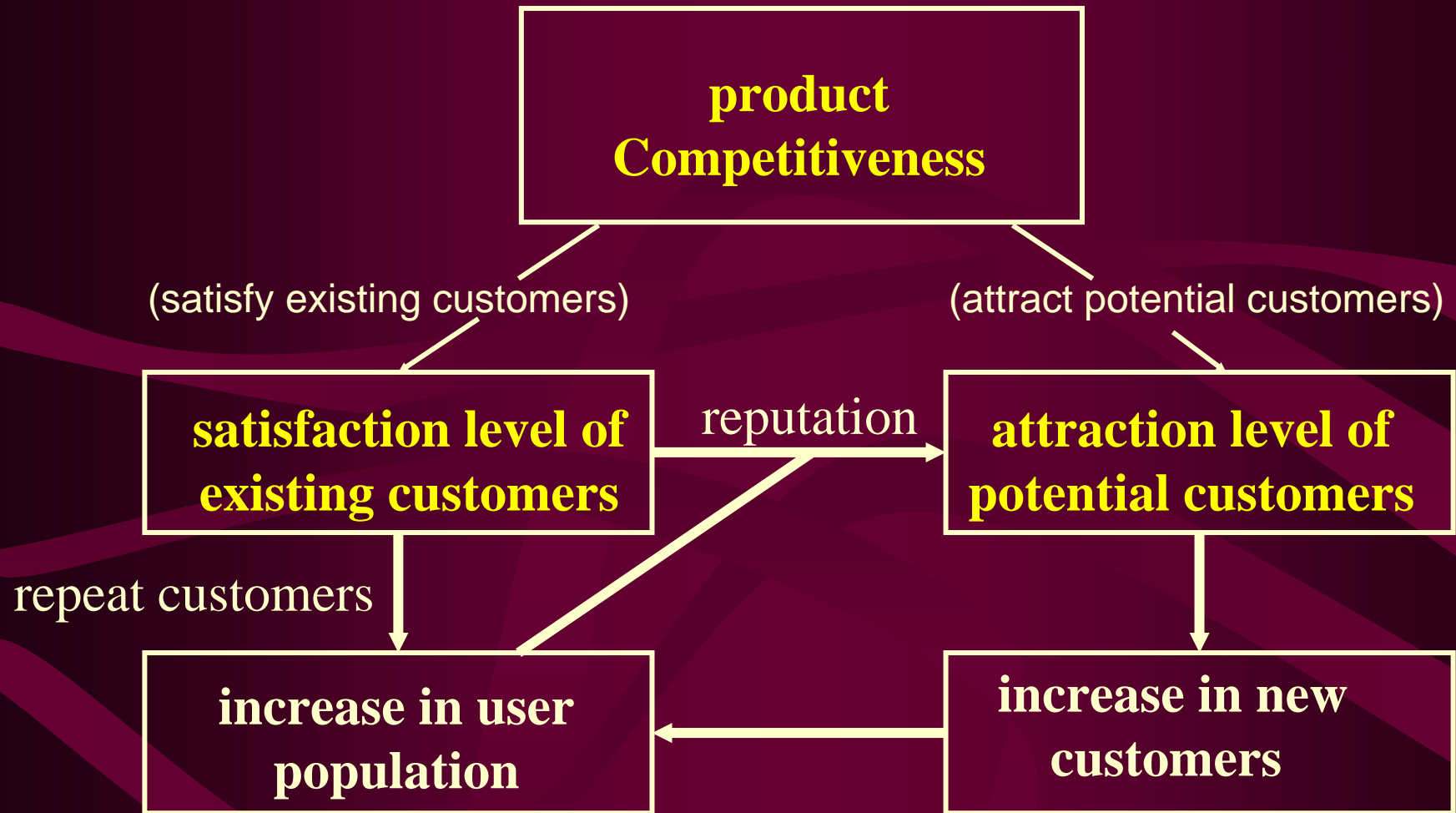
# 1. Concept of Competitiveness

**Competitiveness =**

Power of an individual product or a group of products offered by a certain company satisfies **existing customers**, and also attracts **potential customers** to purchasing.

Competitiveness is a dynamic concept. A favorable cycle between customer satisfaction and customer attraction.

# Dynamics of Competitiveness



**Competitiveness** = persuasive power held by a bundle of design information

**Product** = bundle of design information (message)

Consumers process this information and create own satisfaction/expectation.

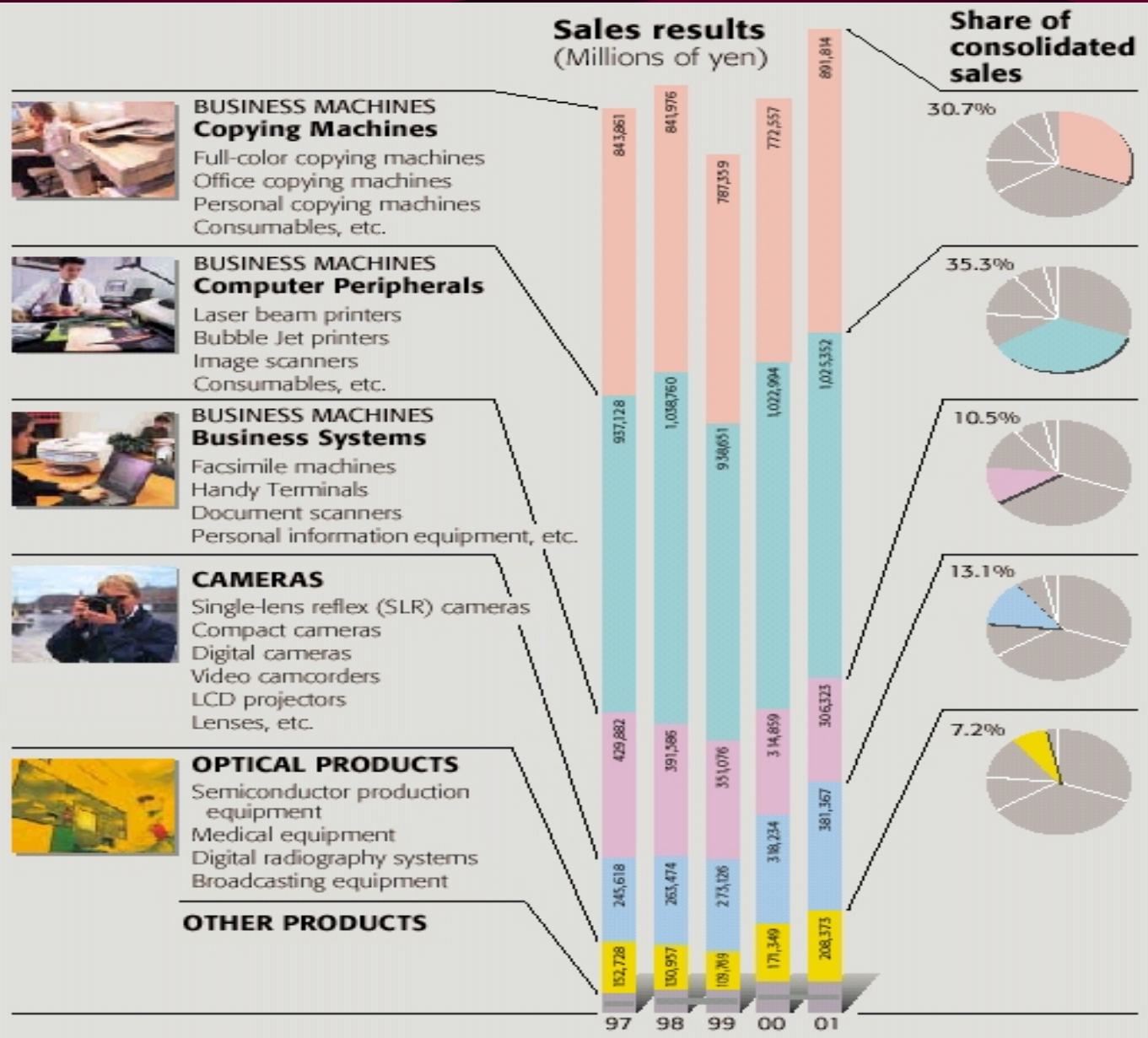
**Competitiveness** = power of product (bundle of information) that persuades potential customers,  
and makes exiting customers consent.

---Actually, however, competitiveness is difficult to be measured.

In many cases, an overall evaluation has to be made based on measurements of plural number of indices.

Competitiveness is measured at the levels of “product”, “brand”, “business”, “industry”.

# Competitiveness of Cannon? ---- Camera? Printer? Copy?



# Competitiveness of Toyota?

くらしデザイン kurashi-design.com



## トヨタホームの商品ラインアップ

ユニット工法

EST工法



■シンセ・エスリー■



■シンセ・レゾンG■



■エスパシオ EF・トラデージ■

【New!!】



■シンセ・レゾン■



■シンセ・ノイエJ&S■



■エスパシオGX■



# 岩屋磁器の例： 主要事業の比較：製品、市場、競争力

	Relief.	Selah.	Tradition porcelain.	Tile.	Product related to science.
Business beginning time	1960's	1970's	The 18th century	1950's	1920's
Product background	Porcelain tile painting for decoration in wall of public building	Umbrella setting up. Ashtray stand. Chair. Flower pot etc. Objet made of porcelain for outdoor	Magnetic vase. Tableware whisky bottle. Adornment etc.	Porcelain tile for decoration of wall outside building for commerce(Include it in construction. )	Brick made of porcelain of weather resistance. Filling thing for chemical plant such as balls and saddles etc.
The main customer	Municipal offices. Design office.	Furniture retail store. Furniture wholesale store. Design office. Department store	Individual guest. Municipal offices. Foreign drinks manufacturer etc.	Municipal offices. Building owner. Design office	Science manufacturer. Sei system manufacturer. Steel manufacturer. Electric power company
The main characteristic demanded from product	Art. Weather resistance	Fine sight. Weather resistance.	Fine sight	Fine sight. Accuracy. Strength. Weather resistance	Corrosion resistance. Adiabaticity. Abrasion resistance
Price elasticity	Small	Small	Small	Middle	Large
Share of I company of domestic pottery product market.	<u>80%</u>	80%	0.10%	<u>2%</u> (tile market). <u>10%</u> (Only the building market for commerce :)	<u>80%</u>
The main rival in domestic pottery product market.	OT Co. Individual writer	Shigaraki scorch manufacturer	Many	IX Co. (tile sales 73 billion yen in 1985). DT Co. (tile sales 17 billion yen in 1985).	NG Co. (Japan). DW Co. (United States). ST Co.(Germany)
Strong point of I company product to competing manufacturer	Sculpture technology.	Large porcelain technology. Processing technology.	Large porcelain technology.	Special order. Wind combination .Strength.	Raw procurement power. Corrosion resisting systems engineer ring power.
Weakness of I company product to competing manufacturer.	Time divided into a lot of tiles	Heavy. Easy to crack.	Cost	Cost	Cost(Compared with overseas products. )
The main competition and substitution fortunes	no wall decoration.	Earthenware. Tree. Plastic	Earthenware	Earthen tile. Stone. Metal	FRP (fiber reinforced plastic). Metal..titanium.
<u>Ratio of porcelain wares in whole including alternative fortune market</u>	<u>10%</u>	15%	n.a.	<u>60%</u>	<u>80%</u>
Strong point of porcelain ware to alternative fortune.	Strength. External. Color goodness	Weather resistance External color goodness	Strength	Weather resistance. Strength	Weather resistance. Adiabaticity. Abrasion resistance. cheap. (Compared with titanium. )
Weakness of porcelain ware to alternative fortune.	Time divided into a lot of tiles	Heavy. Easy to crack.	none.	Cost	Be heavy. Easy to crack. Expensive.(Compared with FRP. )

## 2. Factors of Competitiveness: Surface and Depth

### (1) Competitiveness on Surface

-- part directly visible to customers (interface), and power of information which a company dispatches to customers

#### “4P” of Marketing

**Product** (message embodied in product)

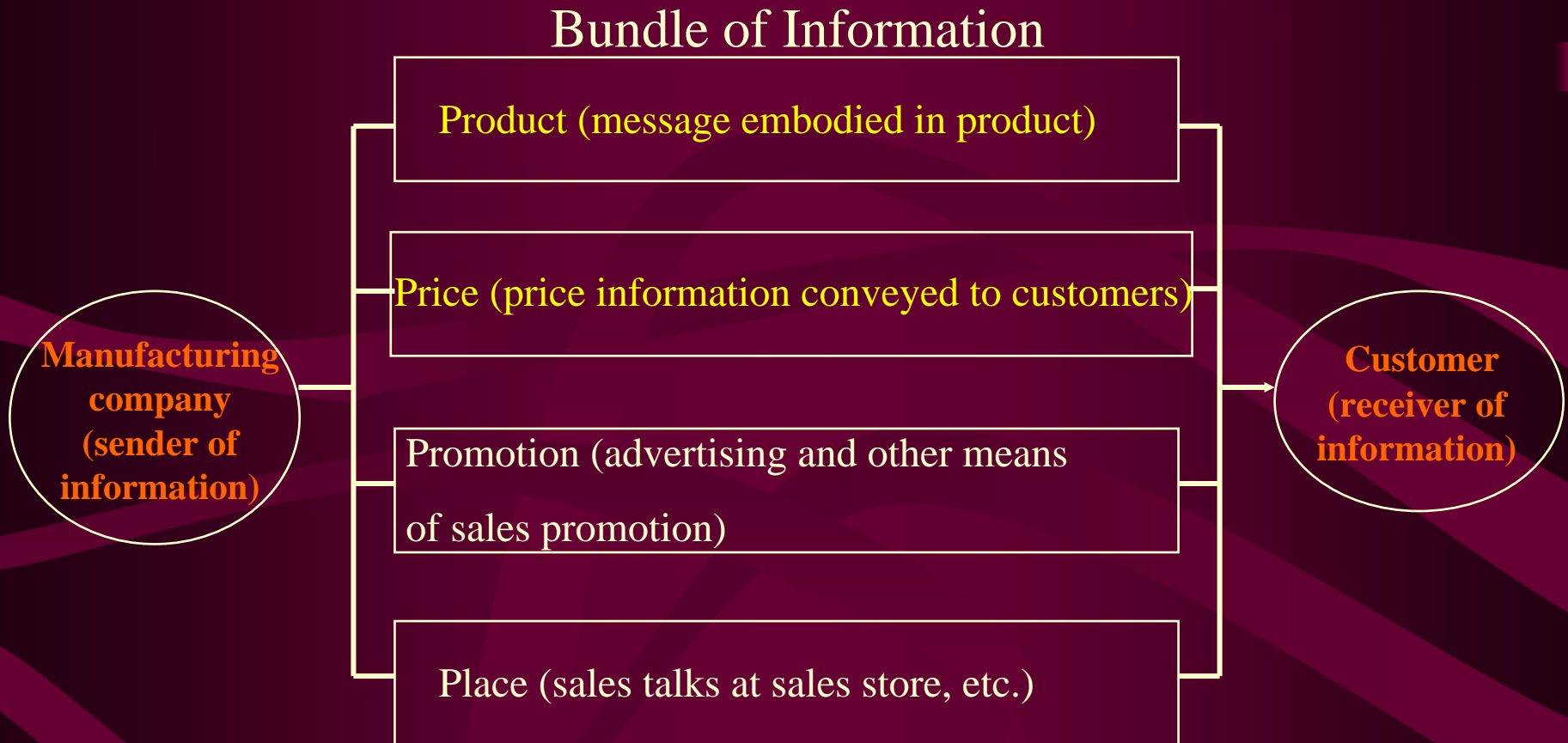
**Price** (price information conveyed to customers)

**Promotion** (advertising, etc.)

**Place** (communication in sales store)



# Customer Interface and “Competitiveness Factors on Surface”



## (2) Competitiveness in Depth (QCD + F)

Cost: Cost exits behind price.

Depose into each cost factor.

Further decompose into productivity and charged factor prices.

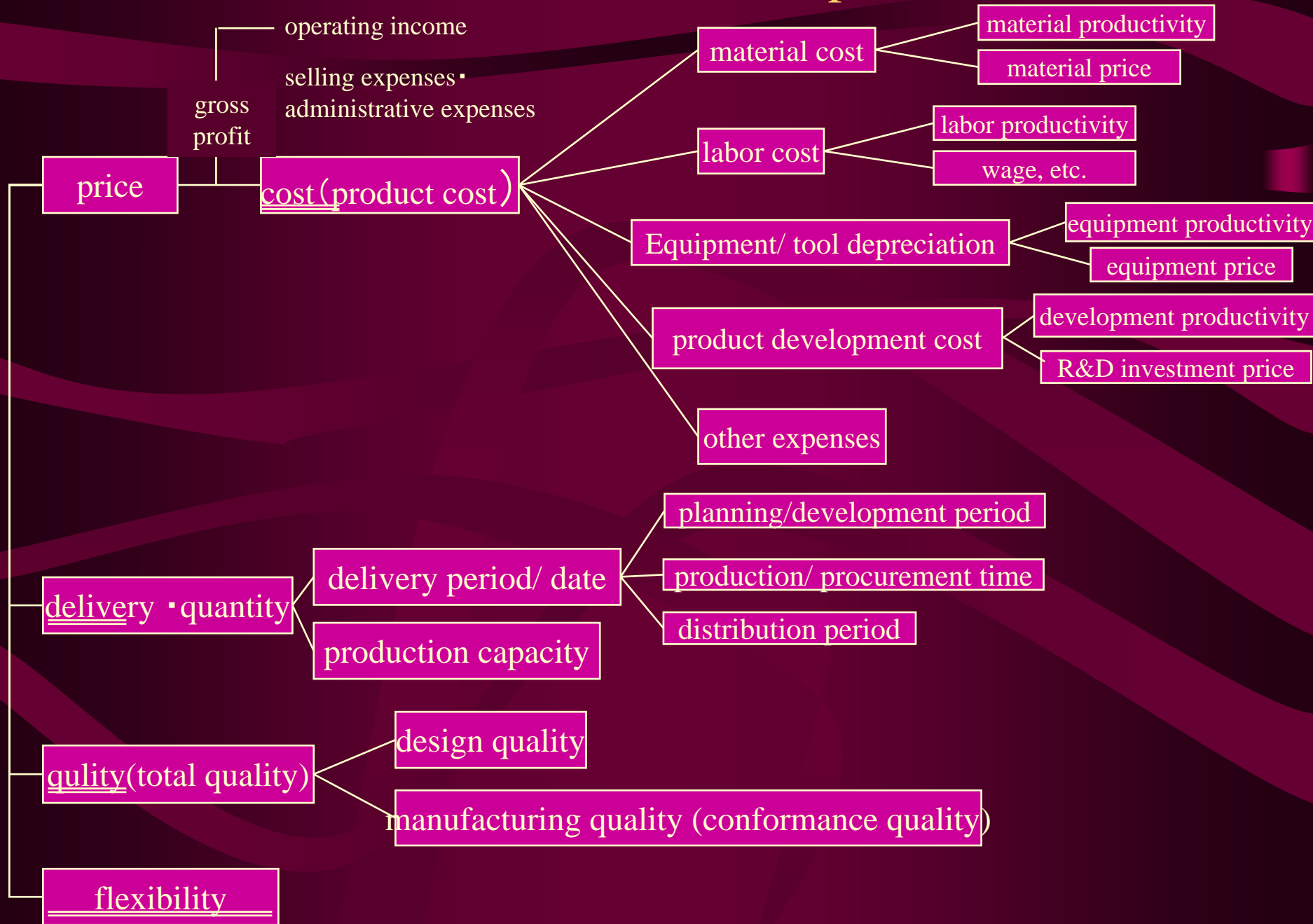
Quality: Design quality and manufacturing quality

Delivery: Up to order-based production or prospective production

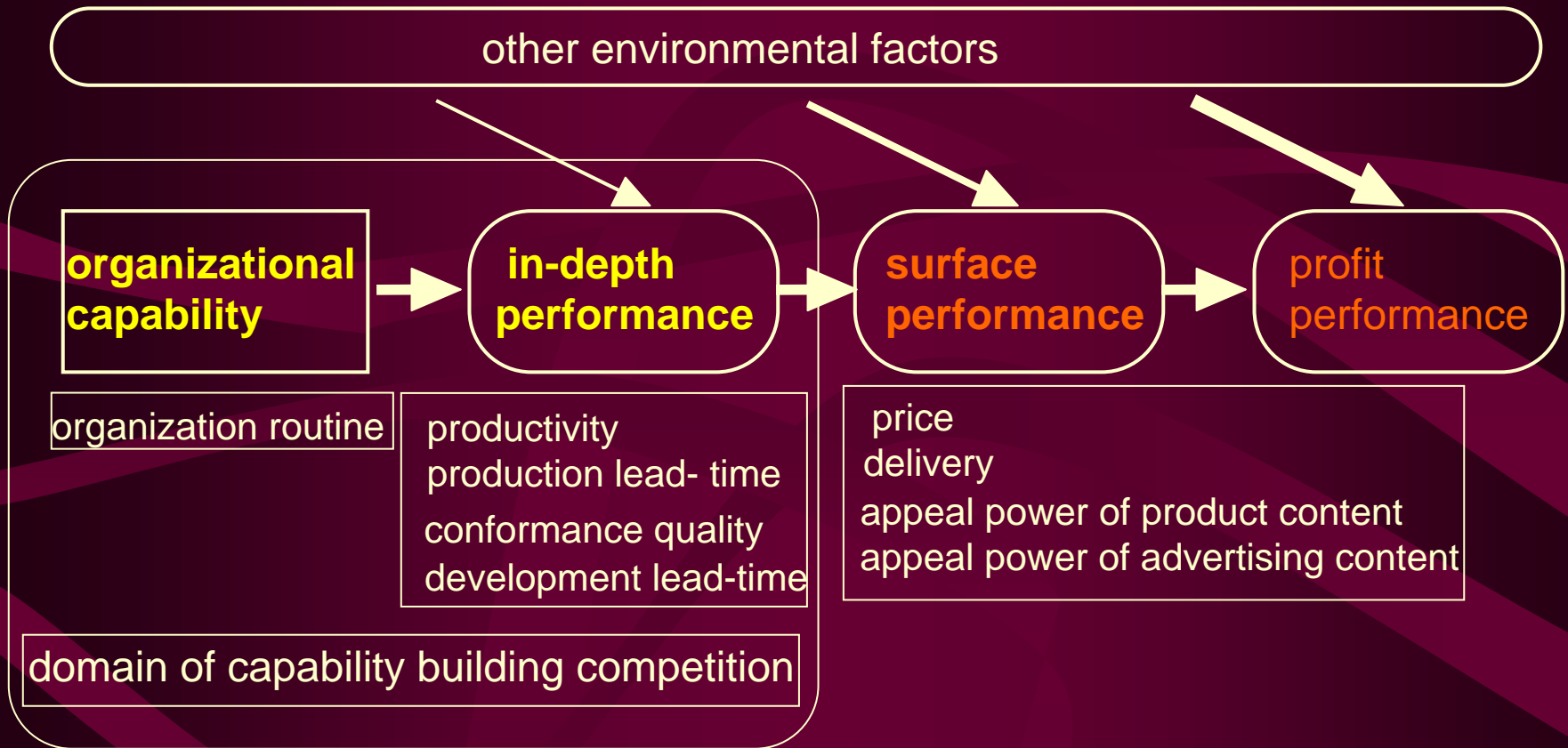
Closely related to production quantity and production capacity

Flexibility: Level of flexible correspondence to changes/diversification in quantity and product

# Main Factors of Product Competitiveness

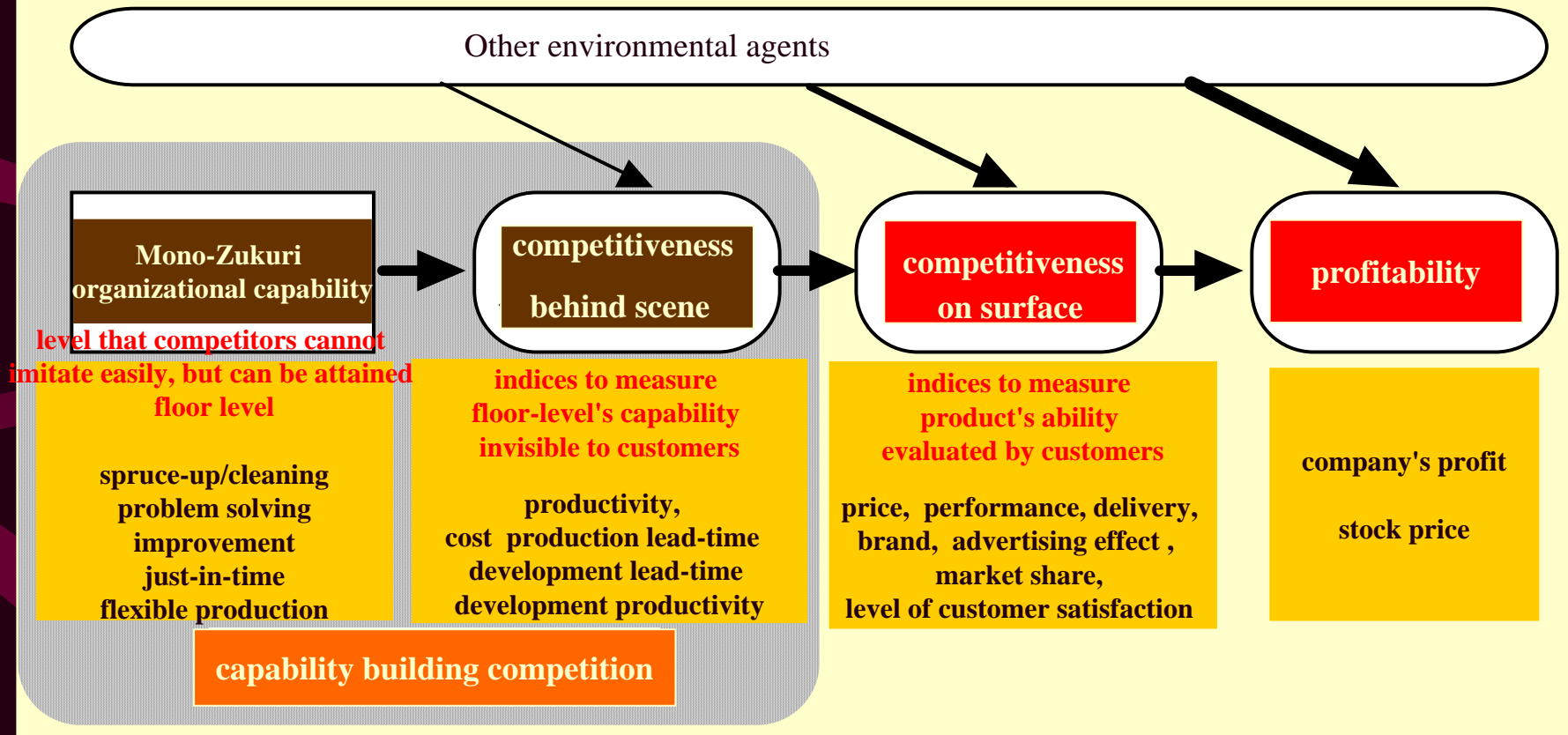


# Organizational Capability and Performance of Mono-Zukuri

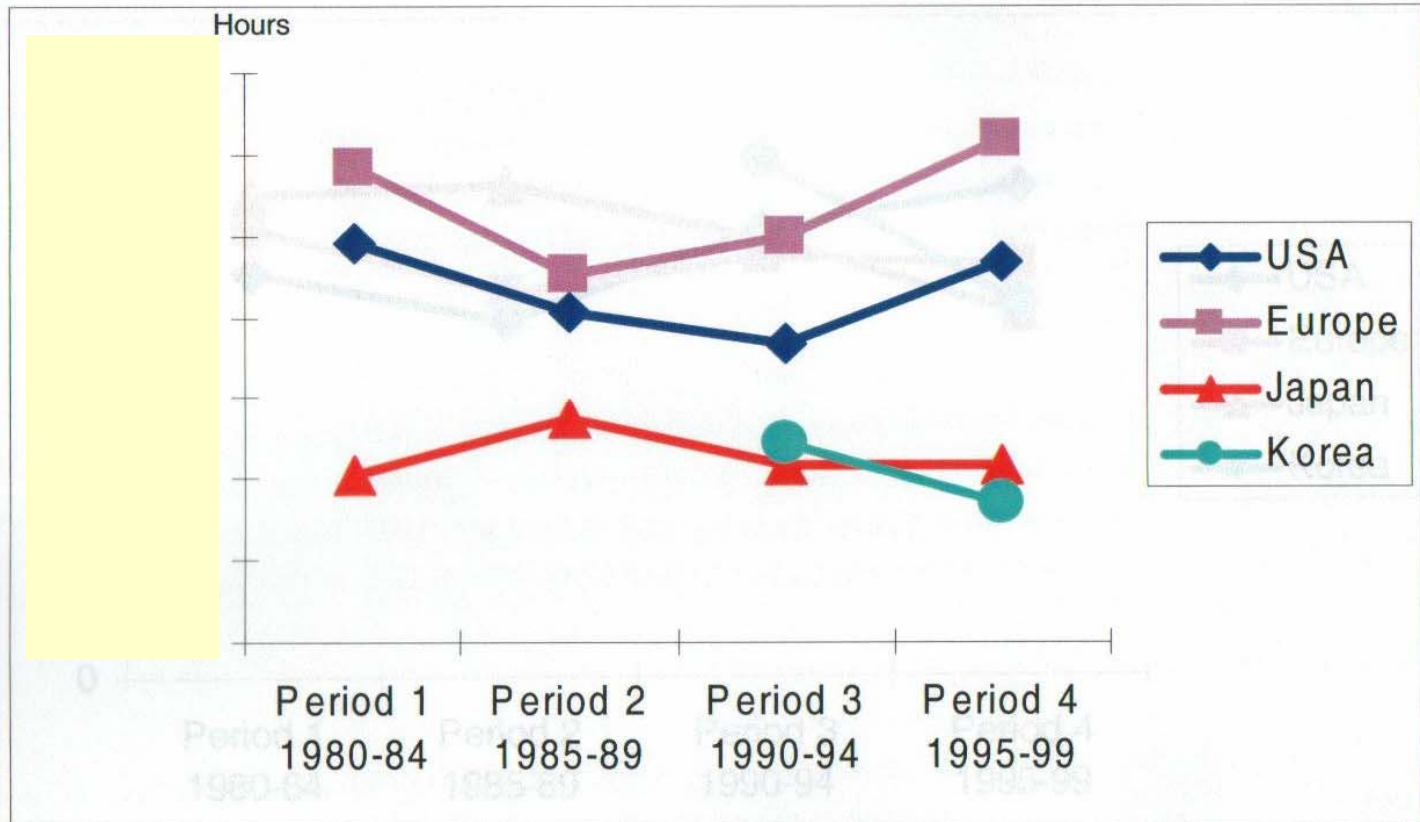


# Organizational Capability and Performance of Mono-Zukuri : Evaluate in Multiple Layers

Organizational ability and performance of the one-making



## Productivity of Auto Development: High in Japan



*Adjustment method:*

*(1) # of body types=2, (2) New design ratio=0.7, (3) Suppliers' contribution=0.3, (4) Product class=compact/sub-compact*

# Framework of Multi-Sphere Evaluation on Competitiveness

## Imbalance Observed in Japanese Auto Industry

