

TOYOTA's Supplier Network

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I TOYOTA's Supplier System

Automobile Industry

Sale to global market in 2004

GM	445(+6.2%)
Ford	354(+3.3%)
TOYOTA	376(+11.2%)
Nissan	164(+13.1%)
Renault	131(+6.6%)
Deimler	230(+4.9%)
VW	265(+5.2%)
PSA	174(+3.2%)
HONDA	155(+8.4%)
Hyundai	133(+9.0%)

unit: 10,000cars

History of Automobile Industry

1908 T-type Ford started

1921 T-type Ford total sale = 10 million cars

1937 Toyota Automobile Industry Co., Ltd. established

1955 Toyopet Crown started

What is TOYOTA Supplier System ?

Automobile \Rightarrow about 30,000 parts

Ford

70% of parts in-house production

30% of parts outsourcing

TOYOTA

30% of parts in-house production

70% of parts outsourcing

Ford

Ford **<flat structure>**



2,000~5,000 parts suppliers

market oriented transaction

TOYOTA

TOYOTA <multiple tier structure>



200~300 parts suppliers (Tier 1)



each Tier 1 supplier has 30~50 parts suppliers (Tier 2)



each Tier 2 supplier has many Tier 3 suppliers

* long term transaction
(competition & cooperation)

Merits of TSS

Simultaneous Engineering

- rapidness^(*)
- flexibility
- quality

⇒ competition

* Rapidness

Design  Line Off
1 year
(7 years ago 2
years)

TOYOTA in Europe 2 years

Other European Producers 3 years

II Challenges to TSS

(1) rapid R&D for new models

(2) globalization

(1) rapidness

competition in domestic market

⇒ new model competition

(ex) Vitz (Toyota) → Fit (Honda) → Ist
(Toyota)

⇐ rapidness is much more important for suppliers ⇐
simultaneous engineering guest engineer

(2) Globalization of TOYOTA

1964	Thailand
1968	Malaysia
1969	Indonesia
1984	NUMMI(US)
1985	Taiwan
1988	Kentucky (TMMK)
1988	Canada (TMMC)
1989	Philippine
1992	UK
1996	Vietnam
1997	Indiana (TMMI)
2001	France
2002	China
2005	Czech (Toyota, Peugeot, Citroen)
	South Africa (IMV)
	Argentina (IMV)

IMV (1)

Innovative International Multi-purpose Vehicle
(TOYOTA)

Global strategic vehicle

= local production, global market

IMV (2)

Thailand pickup truck (2500cc-3000cc)
2004/8~ 280,000 cars/year (export 140,000 cars)


Indonesia minivan (one-boxcar)
2004/9~ 80,000 cars/year (export 10,000 cars)

South Africa
2005~ 60,000 cars/year (export 45,000 cars)

Argentina
2005~ 60,000 cars/year (export 45,000 cars)

IMV (3)

Local content ratio of parts in ASEAN

60%  96% for cost down

Diesel engine	concentration in Thailand
Gasoline engine	concentration in Indonesia

strategy of supplier

Supplier should choose his own strategy

⇒ (Option 1) follow the globalization of TOYOTA as Tier 1

⇒ (Option 2) keep the domestic supplier's position,
but as Tier 2

Toyoda Iron Works - option 1

Established: 1946

Capital Stock: 2,223 million yen

Employees: 2,000

(textile weaving machine parts ⇒ metal press parts)

Globalization of Toyoda Iron Works

1996	Indonesia
1997	Kentucky
1998	India
2003	Turkey
2004	China

Production of metal press and welled automobile components

Tier 2 suppliers of Toyoda Iron Works

33 Tier 2 suppliers **————** ***fine division of labor***

Pressing ······	9	10~85 employees
Cutting ······	3	64~105
Heat treatment ······	2	39~88
Resin processing ······	2	12~25
Painting ······	3	25~200
Plating ······	1	37
Aluminum die-casting ···	1	46
Trial manufacturing ·····	4	17~66
Die making ······	8	12~85

Kojima Press Industry - option 2

Established: 1938

Capital Stock: 450 million yen

Employees: 1,264

History of Kojima Press

Mosquito-repellent incense trader (1917)



Manufacturer (1921)



Metal press parts supplier (1937)



Plastic parts supplier (1962)



Electric devices supplier

Strategy of Kojima Press Industry

Diversification Strategy

subsidiary

Metal press parts

5,500 items

Plastic parts

6,400 items

Electric parts

100 items

III Conclusion

“a steep place near the mountaintop”



TOYOTA supplier System has superior competitiveness