TOYOTA’s Supplier Network

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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: 10,000 cars
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  ➔ 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
<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)
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 $\rightarrow$ 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

<table>
<thead>
<tr>
<th>33 Tier 2 suppliers</th>
<th>fine division of labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressing</td>
<td>10~85 employees</td>
</tr>
<tr>
<td>Cutting</td>
<td>64~105</td>
</tr>
<tr>
<td>Heat treatment</td>
<td>39~88</td>
</tr>
<tr>
<td>Resin processing</td>
<td>12~25</td>
</tr>
<tr>
<td>Painting</td>
<td>25~200</td>
</tr>
<tr>
<td>Plating</td>
<td>37</td>
</tr>
<tr>
<td>Aluminum die-casting</td>
<td>46</td>
</tr>
<tr>
<td>Trial manufacturing</td>
<td>17~66</td>
</tr>
<tr>
<td>Die making</td>
<td>12~85</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Diversification Strategy</th>
<th>subsidiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal press parts</td>
<td>5,500 items</td>
</tr>
<tr>
<td>Plastic parts</td>
<td>6,400 items</td>
</tr>
<tr>
<td>Electric parts</td>
<td>100 items</td>
</tr>
</tbody>
</table>
Ⅲ Conclusion

“a steep place near the mountaintop”

TOYOTA supplier System has superior competitiveness