Service Sector Innovation and Policy Issues in Japan

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Introduction

• The weight of service industries has been increasing.
• Hopes are being pinned on the service industries to become a key player in the rehabilitation of the Japanese economy.
• The service industries have failed to achieve demonstrative increases in productivity through innovation.

“Service innovation” based on the development and adoption of technology and know-how
# Growing Importance of Service Industries

## Change in Japan’s Industrial Structure (% of GDP)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fisheries</td>
<td>3.7</td>
<td>2.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Mining</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>24.9</td>
<td>26.2</td>
<td>25.9</td>
</tr>
<tr>
<td>Construction</td>
<td>11.1</td>
<td>9.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Total for secondary industries</td>
<td>36.5</td>
<td>35.8</td>
<td>33.9</td>
</tr>
<tr>
<td>Electric power, city gas and water supply</td>
<td>2.4</td>
<td>2.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Wholesale and retail</td>
<td>11.2</td>
<td>12.6</td>
<td>12.2</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>4.1</td>
<td>5.6</td>
<td>5.0</td>
</tr>
<tr>
<td>Real estate</td>
<td>10.8</td>
<td>10.8</td>
<td>11.9</td>
</tr>
<tr>
<td>Transportation and communications</td>
<td>6.4</td>
<td>6.2</td>
<td>6.3</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td><strong>13.2</strong></td>
<td><strong>13.9</strong></td>
<td><strong>16.4</strong></td>
</tr>
<tr>
<td>Government service providers</td>
<td>9.7</td>
<td>8.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Private non-profit service providers to</td>
<td>2.0</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Total for tertiary industries</td>
<td>59.8</td>
<td>61.6</td>
<td>64.3</td>
</tr>
</tbody>
</table>

(1981 = 100)
Business-opening and Business-closing Ratios in the Manufacturing and Service Industries

Business-Opening Ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufacturing</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2.8%</td>
<td>4.7%</td>
</tr>
<tr>
<td>2000</td>
<td>1.9%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Business-Closing Ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufacturing</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>4.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>2000</td>
<td>5.3%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Ratio of Business Services to the Total Economy in Selected Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Ratio of Business Services to GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>20.6</td>
</tr>
<tr>
<td>U.K.</td>
<td>22.3</td>
</tr>
<tr>
<td>France</td>
<td>22.9</td>
</tr>
<tr>
<td>South Korea</td>
<td>17.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>30.9</td>
</tr>
</tbody>
</table>
## Growth Sectors of the Service Industry (1989-99)

<table>
<thead>
<tr>
<th>Business</th>
<th>Amount of output</th>
<th>Number of employees</th>
<th>Number of establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laundry, barbers and public bath</td>
<td>82.5%</td>
<td>18.7%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Parking</td>
<td>96.0%</td>
<td>26.3%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Other services related to daily living (Note 1)</td>
<td>62.9%</td>
<td>35.5%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Inns and other accommodations</td>
<td>56.5%</td>
<td>18.2%</td>
<td>-13.6%</td>
</tr>
<tr>
<td>Entertainment (excluding movie and video production)</td>
<td>80.6%</td>
<td>49.4%</td>
<td>17.3%</td>
</tr>
<tr>
<td>Automobile maintenance</td>
<td>45.5%</td>
<td>21.2%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Machinery and furniture repairs</td>
<td>150.7%</td>
<td>52.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Rental of goods</td>
<td>81.6%</td>
<td>33.6%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Movie and video production</td>
<td>81.2%</td>
<td>44.0%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Broadcasting</td>
<td>63.6%</td>
<td>19.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Information services and investigation</td>
<td>164.6%</td>
<td>42.3%</td>
<td>44.6%</td>
</tr>
<tr>
<td>Advertising</td>
<td>42.0%</td>
<td>7.2%</td>
<td>-3.5%</td>
</tr>
<tr>
<td>Professional services</td>
<td>121.1%</td>
<td>44.3%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Other services for businesses (Note 2)</td>
<td>133.2%</td>
<td>64.3%</td>
<td>42.2%</td>
</tr>
<tr>
<td>Waste disposal</td>
<td>162.3%</td>
<td>60.7%</td>
<td>45.3%</td>
</tr>
<tr>
<td>Health care</td>
<td>207.3%</td>
<td>125.2%</td>
<td>29.1%</td>
</tr>
<tr>
<td>Public health and hygiene</td>
<td>244.3%</td>
<td>162.9%</td>
<td>88.1%</td>
</tr>
<tr>
<td>Social insurance and welfare</td>
<td>135.8%</td>
<td>103.7%</td>
<td>49.2%</td>
</tr>
<tr>
<td>Education</td>
<td>44.1%</td>
<td>24.9%</td>
<td>36.6%</td>
</tr>
<tr>
<td>Academic research institutions</td>
<td>-5.6%</td>
<td>33.3%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Religion</td>
<td>66.0%</td>
<td>8.7%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Political, economic or cultural groups</td>
<td>57.0%</td>
<td>21.7%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Other services (Note 3)</td>
<td>138.1%</td>
<td>95.0%</td>
<td>56.1%</td>
</tr>
</tbody>
</table>
Growth Potential of Service Industries

Chart: Smile Curve

Rate of return

Value chain

R&D  →  Production  →  Sales  →  After-sales services
Smile Curves for the Computer Industry

Structure of the Value Added in the PC Industry

Value added ratio

1998

Other electronic parts
Semiconductor elements and integrated circuits
Computers
Liquid crystal elements

Computer auxiliary equipment
Family communications equipment wholesale
Family communications equipment retailing
Software
Data processing and supply services
Computer leasing

1988

Other electronic parts
Semiconductor elements and ICs

Computer auxiliary equipment
Family communications equipment wholesale
Family communications equipment retailing
Information services
Computer leasing
Production value
Smile Curve of the Automobile Industry

Chart: Smile Curve of the Automobile Industry

Value added ratio

Production value

1998

2000

1998

2000

Auto parts
Engines and their parts
Auto assembly
Chassis
Automobile wholesale
Automobile retailing
Auto repairs
Leasing and rental
Autos for hire and taxis

Production value

Value added ratio

0%

5%

10%

10%

5%

0%
Implications from the Smile Curve

• The smile curve varies from industry to industry.

• Power relations among sectors make up the value chains of industries.

• Value added as a whole fell between 1988 and 1998.

• It is possible to change the value chain through innovation.
Factors on the users’ side:

Individuals:
• Graying of the population.
• Participation of housewives in the labor force.
• Increasing need for continuing education.

Businesses:
• Core competency and outsourcing.

Government:
• Fiscal rehabilitation
Factors on the suppliers’ side:

- Manufacturers focusing on after-sale services, such as maintenance and leasing
- Companies spinning off head office administration departments to create shared-service companies
Rising hopes pinned on the service industries

⇒ To create employment opportunities
⇒ To realize a desirable international production network with other Asian countries.
⇒ To contribute to strengthening the competitiveness of industries
⇒ To realize a rich and worry-free life
Policy measures by the Japanese government

The Cabinet Office:

1. Council on Economic and Fiscal Policy
2. Industrial Structure Council

Ministry of Economy, Trade and Industry:

1. Service Forum

Japan Tourism Advisory Council
TFP and the Rate of Increase in Employment

Average annual growth rate in employment 1997-2000

(\%)

- Manufacturing
- Mining
- Finance and insurance
- Electricity, city gas, water supply
- Construction
- Real estate
- Transportation, communications
- Services
- Wholesale, retailing
• Combining crime-prevention sensors and telecommunications technology.

• Based on the information and communications infrastructure.

• Developed technologies in such areas as:
  
  remote sensing,
  
  image processing,
  
  geographical information system (GIS),
  
  and the application of information technology to finance
• Based on the combination of a physical distribution and delivery system and an information system.

  “cool home delivery”

  “time designation delivery”

  “cash-on-delivery”

• Challenging the government-run postal business
• Convenience stores supported by sophisticated physical distribution and information systems.

• Offering a various services in addition to selling merchandise.

<table>
<thead>
<tr>
<th>Services Available at SEJ Outlets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Copying</td>
</tr>
<tr>
<td>• Fax transmission</td>
</tr>
<tr>
<td>• Photo developing</td>
</tr>
<tr>
<td>• Parcel delivery</td>
</tr>
<tr>
<td>• Sale of postage stamps, post cards, and revenue stamps</td>
</tr>
<tr>
<td>• Sale of waste disposal stamps</td>
</tr>
<tr>
<td>• Sale of ski lift tickets</td>
</tr>
<tr>
<td>• Printing of New Year’s cards</td>
</tr>
<tr>
<td>• Sale of automobile third party liability insurance</td>
</tr>
<tr>
<td>• Magazine subscriptions</td>
</tr>
<tr>
<td>• Pick-up of merchandise ordered via the Internet, etc.</td>
</tr>
<tr>
<td>• Sale of catalog gifts</td>
</tr>
<tr>
<td>• Sale of various prepaid cards</td>
</tr>
</tbody>
</table>
• Barbershop chain operator.
• Based on the concept of ¥1,000 and 10 minutes.
• Eliminate shampoos, face shaves, and massages.
• Designed a shop system, including utensils and barber’s chairs, that allows efficient and inexpensive service.
• Opened shops in Singapore.
Application of Toyota-model production system

- Dry cleaning and laundry industry:
  Adopting the “kanban” method to process small lots of various types of clothing resulted in improved finishing, fewer delivery errors, and less damage to clothing.

- Hospitals:
  Reforming operations based on the concept of eliminating waste, which is the core of the Toyota model, sharply reduced waiting time for patients.
Need for Japanese-model service innovation

• It is essential for service industries to raise labor productivity.

• The development of markets and the creation of demand through innovation should expand the markets for services.

• Service industries need to do business abroad.
The direction of service innovation

Product innovation

- Creating new service content.
- Requires developing technology to create new services or developing technologies and know-how to offer services more efficiently.

Process innovation

- Building systems that can meet diverse needs and be efficient.
- Chain Operation is such a system.
Future policies for the development of service industries

(1) Develop service technologies

(2) Improve the market environment for service industries

(3) Develop service industry professionals

(4) Promote the internationalization of the service industries
Develop service technologies

- Adapt technologies and know-how used in the manufacturing industries.
- Develop original technologies for the service industries.

- Ubiquitous network technologies -- IC cards, RFID, etc.
- Data mining
- Other information processing technology
- Sensor technology
Improve the market environment for the service industries

- Increase competition by eliminating monopoly and removing entry barriers.

- Open markets that have been monopolized or heavily regulated by the public sector.
Develop service industry professionals

Securing and nurturing manpower with professional capabilities are essential for the development of these industries.

- Enhance higher education in the field of services
- Develop vocational schools for re-training and re-education of workers.
Promote the internationalization of the service industries

- Provide information to help businesses go abroad.
- Harmonize systems that affect the business environment in various countries.
- Actively promote foreign direct investment in Japan.