Business Value and Revenue Management
企業價值及營收管理

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Outline of the Topic

- Business Models and Why?
- Evolutions of Economy
- Value Creation/Innovation
  - Information Systems Strategy Model
  - Michael Porter’s Five-Competitive Forces Model
  - Red vs. Blue Ocean Strategy
- Revenue Management
  - Models and Applications
- Conclusion

Industry Profitability, 1981-2001

<table>
<thead>
<tr>
<th>Industry</th>
<th>ROE</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>25.87%</td>
<td>10.27%</td>
</tr>
<tr>
<td>Chemicals and allied products</td>
<td>22.77%</td>
<td>7.81%</td>
</tr>
<tr>
<td>Food and kindred products</td>
<td>24.78%</td>
<td>7.25%</td>
</tr>
<tr>
<td>Printing and publishing</td>
<td>18.30%</td>
<td>6.68%</td>
</tr>
<tr>
<td>Rubber and miscellaneous plastic</td>
<td>15.07%</td>
<td>6.25%</td>
</tr>
<tr>
<td>Fabricated metal products</td>
<td>19.00%</td>
<td>5.56%</td>
</tr>
<tr>
<td>Paper and allied products</td>
<td>13.77%</td>
<td>4.67%</td>
</tr>
<tr>
<td>Electronics and electrical equipment (no computers)</td>
<td>9.63%</td>
<td>4.67%</td>
</tr>
<tr>
<td>Nonferrous metals</td>
<td>10.39%</td>
<td>4.23%</td>
</tr>
<tr>
<td>Machinery, except electrical</td>
<td>15.69%</td>
<td>3.40%</td>
</tr>
<tr>
<td>Petroleum and coal products</td>
<td>12.35%</td>
<td>3.76%</td>
</tr>
<tr>
<td>Textile products</td>
<td>11.12%</td>
<td>3.17%</td>
</tr>
<tr>
<td>Aircraft, guided missiles, and parts</td>
<td>14.02%</td>
<td>3.55%</td>
</tr>
<tr>
<td>Stone, clay, and glass products</td>
<td>9.26%</td>
<td>3.44%</td>
</tr>
<tr>
<td>Motor vehicles and equipment</td>
<td>11.91%</td>
<td>3.16%</td>
</tr>
<tr>
<td>Iron and steel</td>
<td>8.45%</td>
<td>2.01%</td>
</tr>
<tr>
<td>Airlines (transportation by air)</td>
<td>2.64%</td>
<td>2.05%</td>
</tr>
</tbody>
</table>


Diversity of Profitability

WHY?

Business Models

The Evolutions of Economy

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/Service</td>
<td>Information/Internet</td>
<td>Knowledge</td>
</tr>
<tr>
<td>Market share</td>
<td>Time to market/</td>
<td>Wallet share/</td>
</tr>
<tr>
<td>Economies of Scale/</td>
<td>Site visitation</td>
<td>Profit</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Technology</td>
<td>Retaining customers/</td>
</tr>
<tr>
<td></td>
<td>Improvement/</td>
<td>Win service/</td>
</tr>
<tr>
<td></td>
<td>Effectiveness</td>
<td>Innovation</td>
</tr>
</tbody>
</table>
Essential Value Propositions for a Successful Company

- Business Model
- Core Competency
- Execution
  - Set corporate goals and get executive sponsorship for the initiative

Cooperating to Create Value

![Diagram showing Revenue, Customer Value, Relative Positioning, and Competitive Forces]

Business Models and Revenue Management

- The framework for making money.
- It is the set of activities **which** a firm performs, **how** it performs them, and **when** it performs them so as to offer its customers benefits they want and to earn a profit.

Case Example: Wal-Mart

- Analysis: Which, How, and When in Wal-Mart’s Success
  - Which:
    - moved into small towns that its competitors shunned
  - How:
    - Wal-Mart saturated contiguous towns and built distribution centers and logistics systems
  - When:
    - First mover advantage by capturing scarce resources, locations, and loyal employees and customers

When to Perform Activities

- Two firms can perform similar activities in similar ways but still end up with business models whose profitabilities are different if the **timing** of when they perform the activities is different.
  - First-mover advantage
  - Windows of opportunities
    - periods within which some activities are best performed
Is timing for market entry really important?

Revenue Management (a.k.a. yield management)

開源或節流？

Revenue Management (RM)
• RM focuses companies on revenue growth, not cost-cutting and downsizing.
• RM drives bottom-line increases through top-line improvements.
• Growth comes from the marketplace, not the workforce.
• The key to real growth is learning how to deal effectively and proactively with a constantly changing markets.

Revenue Management (RM) vs. MIS
• MIS is to deliver
  – the right information, to the right people
  – at the right time, with the right form
• RM is to sell
  – the right product, to the right customer
  – at the right time, for the right price
  – Thereby maximizing revenue from a company’s products

Examples on Revenue Management
• A No-Tech approach to RM
  – Barbershop
• A Low-Tech approach to RM
  – Opera House
• A High-Tech approach to RM
  – Airlines

Other Examples
• Hotel
• Car rental
• Golf
• Broadcasting
• Shipping
• Restaurant
• Etc.

因應競爭台鐵擬採用開源或節流，

How about in Taiwan?
Some U.S. airline industry observations

• Since deregulation (1978) 137 carriers have filed for bankruptcy.
• From 95-99 (the industry’s best 5 years ever) airlines earned 3.5 cents on each dollar of sales:
  – The US average for all industries is around 6 cents.
  – From 90-99 the industry earned 1 cent per $ of sales.
• Carriers typically fill 72.4% of seats and have a break-even load of 70.4%.

Revenue management and margin arithmetic

• Small changes in revenue can have a big impact on profit, especially for high gross margin and low net profit % industries:

<table>
<thead>
<tr>
<th>Gross margin</th>
<th>Revenue increase</th>
<th>Net profit %</th>
<th>Revenue increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>1% 2% 5% 8%</td>
<td>100%</td>
<td>1% 2% 5% 8%</td>
</tr>
<tr>
<td>90%</td>
<td>15% 15% 15% 15%</td>
<td>90%</td>
<td>15% 15% 15% 15%</td>
</tr>
<tr>
<td>80%</td>
<td>30% 25% 20% 15%</td>
<td>80%</td>
<td>30% 25% 20% 15%</td>
</tr>
<tr>
<td>75%</td>
<td>35% 30% 25% 20%</td>
<td>75%</td>
<td>35% 30% 25% 20%</td>
</tr>
<tr>
<td>50%</td>
<td>50% 30% 20% 10%</td>
<td>50%</td>
<td>50% 30% 20% 10%</td>
</tr>
<tr>
<td>25%</td>
<td>65% 45% 25% 15%</td>
<td>25%</td>
<td>65% 45% 25% 15%</td>
</tr>
<tr>
<td>15%</td>
<td>75% 55% 35% 25%</td>
<td>15%</td>
<td>75% 55% 35% 25%</td>
</tr>
</tbody>
</table>

Ugly reality: cancellations and no-shows

• Approximately 50% of reservations get cancelled at some point in time.
• In many cases (car rentals, hotels, full fare airline passengers) there is no penalty for cancellations.
• Problem:
  – the company may fail to fill the seat (room, car) if the passenger cancels at the very last minute or does not show up.
• Solution:
  – sell more seats (rooms, cars) than capacity.
• Danger:
  – some customers may have to be denied a seat even though they have a confirmed reservation.

The Profit and Growth Consequences of Creating Blue Oceans

<table>
<thead>
<tr>
<th>Business launch</th>
<th>Revenue Impact</th>
<th>Profit Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>86%</td>
<td>62%</td>
<td>39%</td>
</tr>
<tr>
<td>14%</td>
<td>38%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Matching supply to demand when supply is fixed

• Examples of fixed supply:
  – Travel industries (fixed number of seats, rooms, cars, etc).
  – Advertising time (limited number of time slots).
  – Telecommunications bandwidth.
  – Size of the MBA program.
  – Doctor’s availability for appointments.
• Revenue management is a solution:
  – If adjusting supply is impossible – adjust the demand!
  – Segment customers into high willingness to pay and low willingness to pay.
  – Limit the number of tickets sold at a low price, i.e., control the average price by changing the mix of customers.

Winners vs. Losers

• What separates winners from losers in creating (ultimate) strategic competitive advantage is neither bleeding-edge technology nor “timing for market entry.”
• It is from “value innovation”
The Twenty-first Century will

- The twenty-first century will witness only two kinds of companies:
  - those that exploit Information Technology (IT)
  - those that are out of business

Conclusion

- Value innovation and business models
- Revenue management and overbooking give demand flexibility where supply flexibility is not possible.
- Concept and powerful tools to improve revenue:
  - American Airlines estimated a benefit of $1.5B over 3 years.
  - National Car Rental faced liquidation in 1993 but improved via yield management techniques.
  - Delta Airlines credits yield management with $300M in additional revenue annually (about 2% of year 2000 revenue.)

Revenue Management

- If you are interested in the issues of RM
- International Journal of Revenue Management
- http://www.inderscience.com/ijrm

The Seven Core Concepts of Revenue Management

1. Focus on price rather than costs when balancing supply and demand.
2. Replace cost-based pricing with market-based pricing.
3. Sell to segmented micro markets, not to mass market.
4. Save your products for your most valuable customers.
5. Make decisions based on knowledge, not supposition.
6. Exploit each product’s value circle.
7. Continually reevaluate your revenue opportunities.