Comparison of Mobile Communications Service Industry: Finland vs. China

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Agenda

- Background
- Research Problem
- Methodology
- Mobile Service Market
- Five Forces Analysis
- Value Network Analysis
- Conclusions
- Future Research
Research Problem

How is the Finnish mobile communications service industry different from the Chinese mobile communications service industry?

- What are the characteristics of the mobile service market?
- What is the current competitive situation of the mobile service market?
- How is the mobile value network changed?
- What are the reshaping forces and the revenue sharing model of the new mobile value network?
Methodology

Data Collection
➢ extensive literature reviews and a series of qualitative interviews

Research Approach
➢ The deductive approach was selected.
➢ Two theoretical models: Porter's Five Forces, Value Network
Porter's Five Forces Model

- Threat of new entrants
  - Suppliers
  - Bargaining power of suppliers
- Threat of substitutes
  - Substitutes
- Bargaining power of buyers
  - Industry competitors
    - Rivary among the existing players
- Buyers
A value network example
Mobile Service Market in Finland (1/5)

Mobile subscriber numbers and penetration in Finland
Mobile Service Market in Finland (3/5)

Price Regulation
➢ Tariff structure
➢ Tariff setting principles
➢ Regulation of individual tariffs

Billing Models
➢ Postpaid & Calling Party Pays (CPP)

Unbundling of mobile phones and subscriptions

Mobile Number Portability (MNP)

3G Licensing
➢ Beauty contest
Mobile Service Market in Finland (4/5)

The Finnish mobile service market share, in March 2004 (Kiiski & Hämmäinen, 2004)

The landscape of Finnish mobile operators

- DNA (15%)
- Elisa (28%)
- TeliaSonera (49%)
- Others (8%)

The landscape includes:
- Sonera Mobile Networks: TeliaSonera, Saunalahti, ACN, Globetel
- Elisa Mobile Networks: Elisa, Cubio, Tele2
- Finnet Verkot: DNA, Fujitsu, PGOne, Wireless Maingate
The price changes of mobile calls during 1995 – 2003 in Finland. The price changes have been calculated using the price index (1995=100).

<table>
<thead>
<tr>
<th>Average income in Finland (2002)</th>
<th>2223 euro/month (source: statistics Finland)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile charge</td>
<td>3.99 euro monthly charge + 0.13 euro/min</td>
</tr>
<tr>
<td></td>
<td>(source: TeliaSonera One’s voice charge, see Appendix 1)</td>
</tr>
<tr>
<td>Total time = Average income/mobile charge</td>
<td>(2223-3.99)/0.13 = 17069 minutes = 284 hours</td>
</tr>
</tbody>
</table>

The affordability of the mobile services in Finland.
Mobile Service Market in China (1/6)

Mobile subscriber numbers and penetration in China

Distribution of the mobile penetration
Hierarchical telecommunications regulatory framework in China
Mobile Service Market in China (3/6)

Price Regulation

Table 4: Mobile Voice Charges in China by the MII (RMB Yuan)

<table>
<thead>
<tr>
<th></th>
<th>China Mobile</th>
<th>China Unicom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Charge</td>
<td>50 (= 4.6€)</td>
<td>45 (= 4.14€)</td>
</tr>
<tr>
<td>Communications</td>
<td>0.40/min (= 0.0368€/min)</td>
<td>0.36/min (=0.0331€/min)</td>
</tr>
</tbody>
</table>

Billing Models

➢ Prepaid & Calling Party Pays (RPP)

Bundling of CDMA mobile phones and subscriptions

Mobile Number Portability (MNP)

3G Licensing

➢ WCDMA, CDMA 2000, TD-SCDMA
Mobile Service Market in China (4/6)

China Mobile 70%

China Unicom 30%

The market Share of China Mobile and China Unicom in 2003
### Mobile Service Market in China (5/6)

<table>
<thead>
<tr>
<th>Average income in China (2002)</th>
<th>134 euro/month (source: The People’s Bank of China)</th>
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</thead>
<tbody>
<tr>
<td>Mobile charge</td>
<td>4.6 euro monthly charge + 0.0368 euro/min (Source: China Mobile’s voice charge, see Appendix 3)</td>
</tr>
<tr>
<td>Total time = Average income/mobile charge</td>
<td>((134-4.6)/0.0368 = 3516 \text{ minutes} = 58.6 \text{ hours})</td>
</tr>
</tbody>
</table>

The affordability of mobile services in China.
Mobile Service Market in China (6/6)

ARPU & MOU in China Mobile vs. in TeliaSonera Finland
Five Forces Analysis (1/5)

Rivalry among the existing players

**Finland**
- Highly competitive
- Characteristics of a mature market
- Switching cost – MNP
- Government role
  - Light-handed regulatory approach

→ High intensity

**China**
- Strongest economy growth in the world
- Only two mobile operators – CM and CU
- Different strategies
- Substitutability – Little Smart service

→ Medium intensity
Threat of new entrants

Finland
- MVNOs
- Economies of scale
- Regulatory support
→ High threat

China
- Entry barriers from the government
- Huge investment
- The expected retaliation from CM and CU
- Who is the new entrant?!
→ The threat of new domestic entrants is high, but the threat of new foreign entrants is low
Five Forces Analysis (3/5)

Bargaining power of buyers

**Finland**
- Few buyers
- Little or no switching cost for the buyers
- Free choice
- Market information
- Value added service
  - High bargaining power

**China**
- Market segment
  - High-end, middle-end, and low-end
- Large volumes of buyers
- The degree of undifferentiated mobile service
- High switching cost
- Intervention of the regulator
  - Medium bargaining power
Five Forces Analysis (4/5)

Bargaining power of supplier

Finland

- More concentrated
- No direct threat to cellular technologies
- Close tie to mobile operators
- Reduction in the size
- 3G launch

⇒ Medium bargaining power

China

- High fragmented suppliers selling to extremely concentrated buyers

⇒ Low bargaining power
Five Forces Analysis (5/5)

Threat of substitutes

Finland
- No direct threat
- WLAN with fully developed VoIP
- View WLAN as complementary to mobile technology
  ➔ Low threat

China
- Little Smart – PAS
- Pros
  - Cheap
  - CPP billing model
- Cons
  - Lower mobility
  - Poor quality of service
  ➔ Medium threat
<table>
<thead>
<tr>
<th>Five forces</th>
<th>Finland</th>
<th>China</th>
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<tr>
<td>Rivalry among the existing players</td>
<td>High</td>
<td>Medium</td>
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<td>Threat of new entrants</td>
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<td>Low</td>
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<tr>
<td>Threat of substitutes</td>
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</table>
The traditional mobile value network
(1) All actors are shown as equally large, and (2) the distances between two actors are arbitrary.
Value Network Analysis (2/5)

Three main forces reshape the value network.
➢ The changes in the roles of value network members, which cause power shift within the traditional value network.
➢ The customer preference for personal customization.
➢ The effect of convergence between different actors.
Value Network Analysis (3/5)

The current mobile value network of the core actors in Finland
Value Network Analysis (4/5)

The current mobile value network of the core actors in China
Value Network Analysis (5/5)

Sonera Zed revenue sharing model, modified from Helin, 2002

China Mobile Monternet revenue sharing model
Conclusion

• The analyses find that a higher degree of competitiveness is displayed in the Finnish mobile communications service industry.

• *The change in the roles of the value network members* is believed to be the most important force reshaping the current mobile value networks in both countries.
Future Research

An in-depth analysis of the 3G market dynamics in these two countries in the near future should be done as a further study.