Mobile Data Service Industry Structure: Walled Garden vs. Horizontal Integration

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Outline

- Mobile data service and industry definitions
- Main industry structures
- Theoretical industry structure models
- Country overviews
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  - Finland
  - UK
- Comparison of the three markets
- Conclusions

Mobile data industry and services

- Mobile data service industry
  - complex, adaptive system linking together several industries
  - dynamic
- Mobile data services
  - content and data access services excluding SMS-based mobile data services
  - complex products consisting of many subparts

Mobile data service industry structures

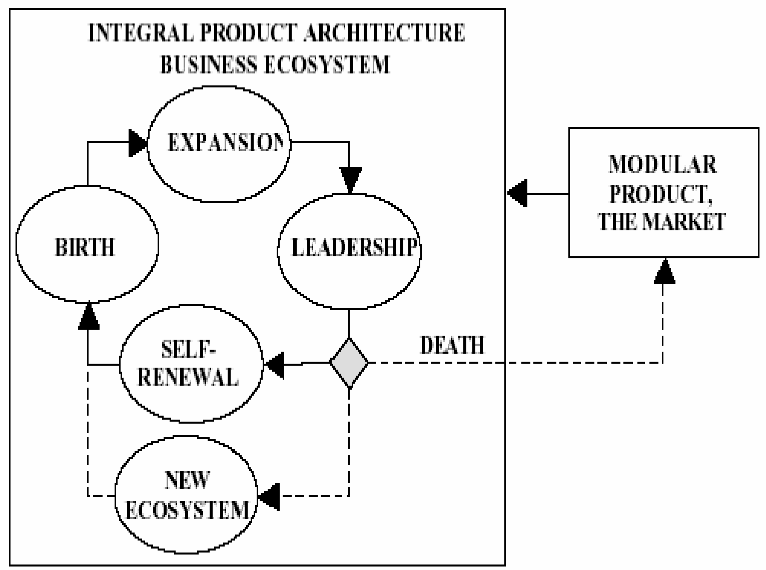
- Horizontally integrated structure
  - market-driven
  - product architecture modular
  - e.g. Finland
- Vertically integrated structure
  - ecosystem-based
  - product architecture integrated
  - ”walled garden”
  - e.g. Japan

Industry structure models (1)

- Moore: Ecosystem thinking
  - evolutionary development of the industry
  - company's dependence of its environment
- Fine: Double Helix Model
  - given industry oscillates between vertical/integral and horizontal/modular structure
  - two main drivers for the shift in industry structure
    - technological innovation
    - competitive intensity

Industry structure models (2)

- Vesa: Dynamic Ecosystem Model
  - industries oscillate between ecosystem-based/integrated and market-driven/modular structure and product architecture
- Three forces drive the shift
  - competitive intensity
  - technological and service innovation
  - organizational structure



Japan

- Regulation
  - handset subsidy allowed
  - SIM lock allowed
  - operators don’t have to provide access to their networks with fair price
- Ecosystem / vertically integrated market
  - mobile operator controls all levels of the value chain
  - product architecture highly integrated
  - operators provide a total service package, SIM lock used
  - co-operation: operators don’t provide all the necessary elements themselves
  - user experience critical
  - terminals subsidized
- Mobile data services success
  - 86% of the mobile phone users subscribe to data services
  - non-SMS mobile data revenue 15%

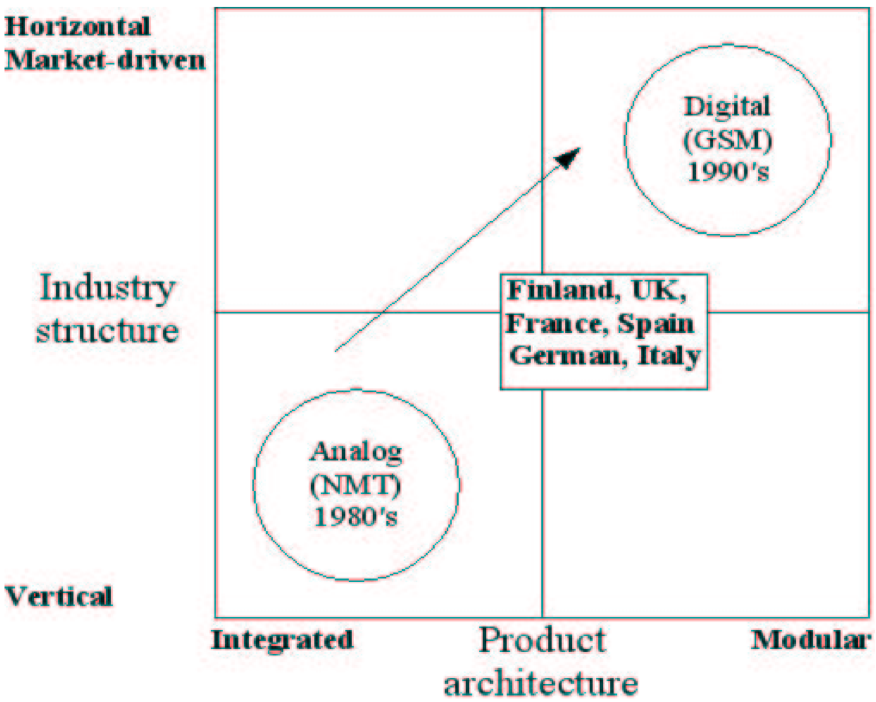
Finland

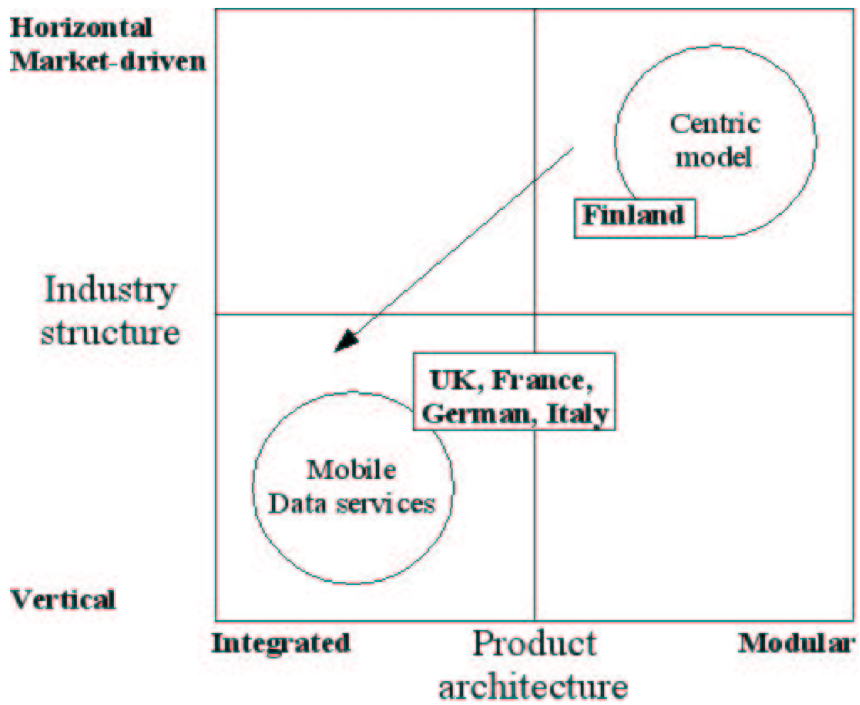
- Regulation
  - handset subsidies forfidden
  - SIM lock forbidden
  - SMP operators have to provide access to their networks with fair price
  - long contracts **not** banned
- Horizontally integrated market
  - market-driven
  - modular and standardized products
  - service discovery difficult
  - content providers have to make agreements with all the service operators and over all different technology interfaces
- Mobile data services not a success
  - 5% of the mobile phone users subscribe to data services
  - non-SMS mobile data revenue 1%

UK

- Regulation
  - Handset subsidy allowed
  - SIM lock allowed
  - SMP operators have to provide access to their networks with fair price
- Hybrid market structure
  - horizontal -> vertical
  - product architecture modular -> integrated

Evolution in the Mobile Service Industry in Europe





Adapted from J. Vesa (2004)

Comparison of the three markets

	Japan	Finland	UK
Population	128 mill.	5 mill.	60 mill.
Non-SMS data revenue	15 %	1 %	2 %
Product Architecture	Integrated	Modular	Hybrid
Industry structure	Vertically integrated	Horizontally integrated	Hybrid
Handset provider	Network&service operator	Dealers	Service operator
Portal provider	Network&service operator	Independent portal providers	Service operator
Content provider	Independent content providers	Independent content providers	Independent content providers
Handset subsidy	Yes, 90% of the price	No	Yes
SIM-lock	Yes	No	Yes

Conclusions

- Vertically integrated market structure has proven to be more successful because of the complexity of the products
- This industry structure not applicable to the Finnish market because of the regulation
  - Finnish regulatory framework was optimized for voice services
  - Prevents operators on the Finnish market from implementing the most business-wise business models
- Can cause remarkable losses in industry
  1. delayed and minor data service usage
  2. investors unwilligness to invest in the stagnated market
     - incumbents
     - foreign operators