Scenario-based Development of Market Entry Strategies: The Case of Electronic Consumer Billing in Germany

Master's Thesis
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Master's Thesis Presentation
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Problem Definition

- Success of electronic invoices both in Finland and internationally
- Growing market for electronic consumer billing
  - e.g. Netposti (FIN), eFaktura (NOR), arved.ee (EST)
- Germany:
  - Large market, so far only marginal penetration of electronic billing services
  - low use of online banking services
  - 80% of consumer contracts are charged through direct debit
  - challenging and unclear legal situation of electronic documents
  - consumer interest is low

Key Argumentation Chain

Background

- B2B E-Invoicing
- Consolidator Portals
- Invoice as a marketing channel
- Market size
- Challenges

Key Question

- What is the best foot-in-the-door strategy?

Research

- General
- Consumer Behavior
- Invoice Paradigm
- Success stories
- Laws & Regulations
- Key Stakeholders
- Industry Survey

Applications

- B2C Billing Scenarios

Discussion

- Evaluation
- Implications

Conclusion

- Key Findings
- Strategic Imperatives
- Recommendations
Research Questions

\(Q_1\): What is the current state of electronic consumer billing in Germany?

\(Q_2\): What are the challenges that electronic consumer billing faces in Germany?

\(Q_3\): How is the market likely to develop and how should service providers and billers approach consumer billing?

Thesis Structure
Methodology

- Research Frameworks
  - Structural Analysis of Industries (Porter, 1980)
  - Industry Scenarios (Porter, 1985)
  - Technology Adoption Life Cycle (Rogers, 1962)
    - Revised Model (Moore, 1991)
- Industry Survey / Case Studies
  - Interviews
  - Building Theory from Case Study Research (Eisenhardt, 1989)

Five Forces Driving Industry Competition
Constructing Industry Scenarios

- Identify the uncertainties that may affect industry structure
- Determine the causal factors driving them
- Make a range of plausible assumptions about each important causal factor
- Combine assumptions about individual factors into internally consistent scenarios
- Analyze the industry structure that would prevail under each scenario
- Determine the sources of competitive advantage under each scenario
- Predict competitor behavior under each scenario

Technology Adoption Life Cycle

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards

The Chasm
Electronic Consumer Billing (Technologies and Solutions)

- Technologies
  - TCP/IP, FTP, HTTP, SMTP, HTML, Finvoice, XML, EPL, PDF, PKI, QES, SSL/HTTPS, SSH, VPN, ...
  - The technological implementation of electronic consumer billing is the smaller challenge
  - Legacy formats present the only problem (e.g. EPL)

- Solutions
  - Electronic (B2B) Invoicing Operator Networks vs. EDI
  - Electronic Bill Presentment and Payment (EBPP)
    - One single interface to receive, accept and pay bills
  - Billing Models
    - Biller Direct
    - Thin/Thick Consolidation

Electronic Invoicing Operator Networks (1/2)
Electronic Invoicing Operator Networks (2/2)

- Advantage over EDI:
  - Only one incoming and outgoing connection needed
  - EDI: One connection for every sender and recipient
  - Significantly lower initial investment required
  - Format conversions as needed
  - Forwarding to correct channels on a per case basis

Billing Models

- Biller Direct
  - The biller presents the bill on his own portal site
  - The consumers visit the site upon their own initiative (email notifications)
- Thick Consolidation
  - Several billers send their bills to one portal site provider
  - Consumers can receive all bills in one place
  - Best replacement for the traditional mailbox
- Thin Consolidation
  - Billers present the bills on their own portals
  - Summaries of the bills are sent to a consolidator
  - The consumer can receive summaries of all his bills in one place and is redirected to the biller's portal if he wishes to see the detailed bill
German Market Environment

- Telecommunications service providers the first adopters of electronic consumer billing
  - shrinking margins, all possible cost savings measures are considered
  - high volume bills
  - vast majority of bills paid using direct debit
  - consumers pay little interest to their bills, as payment is automatic
- Electronic consumer billing is not used in any other sector!
- Banks
  - very heterogeneous market
  - almost 2400 individual banks in Germany
- Legal aspects
  - A bill or invoice is only legally valid if it is a paper bill, sent using a verified EDI connection, or is signed using a qualified electronic signature.
  - The QES process is very complicated, making the option very unattractive for consumers.

Industry Survey

- Assessment of the electronic consumer billing from billers’ and consumers’ viewpoints
- Answering the questions:
  - What is the billers’ attitude towards electronic consumer billing?
  - How do consumers view consumer billing?
- Since asking the consumers directly was not possible:
  - How do billers perceive the attitude of consumers towards electronic consumer billing, and what is the attitude of billers towards consumers?
Participating Companies

- Versatel
- T-Mobile
- T-Com
- Lycos Europe
- Zurich Group
- acoreus AG
- paybox solutions AG
- Deutscher Sparkassen- und Giroverband

Survey Results (1/4)

Table 4.2: Participating billers’ current billing solutions

+-----------------+-----+-----+-----+-----+-----+-----+
<table>
<thead>
<tr>
<th>Sector</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</table>
+-----------------+-----+-----+-----+-----+-----+-----+

| aIntegration of the electronic consumer billing solution into a customer self-care portal. |
| bExisting plans for deployment of an electronic consumer billing solution |
| cWould participate in a consolidated service if it met the requirements. |

All participating billers’ solutions were fell short of reaching the initially targeted adoption rates
Survey Results (2/4)

Table 4.3: Additional motivation for the deployment of electronic consumer billing solutions.

<table>
<thead>
<tr>
<th>Added value orientation</th>
<th>Customer relationship orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Electronic bill presentation as an added-value alternative to paper bills—guaranteed reception is essential</td>
<td>• Electronic bill presentment as customer relationship and marketing channel</td>
</tr>
<tr>
<td>• Offering customers added-value services through flexible bill presentation solutions</td>
<td>• Strengthening the marketing relationship by delivering the bill to a comprehensive Customer Self Care Portal</td>
</tr>
<tr>
<td>• Technology leadership</td>
<td>• Will not surrender their customer relationship to provide added-value to the customer (i.e. consolidation)</td>
</tr>
<tr>
<td>• Will consider sending bills through consolidating service</td>
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</tbody>
</table>

Survey Results (3/4)

- **Motivation for deployment**
  - Cost savings, internal process optimizations
  - Only few billers mentioned the benefits to the customer relationship

- **Advantages**
  - Cost savings
  - Speed increase of the entire billing process
  - Perceived advantages for consumers: less paper, easy cost analysis

- **Disadvantages**
  - Slow adoption
  - Low consumer interest, low acceptance of e-commerce in general
  - Legal challenges
Survey Results (4/4)

- Importance of consumers for billers
  - Customer relationship approach
    - Benefits for biller are more important than advantages or disadvantages for the consumer
    - Focus on cost savings and strengthening of the customer relationship
  - Added-value orientation
    - Main focus on customer satisfaction
    - The solutions must be optimized to deliver the consumer an added-value

Scenarios (1/2)

- Uncertain variables:
  - Consumer influence
  - Biller interest
  - Consolidation

<table>
<thead>
<tr>
<th>Consumer Influence / Biller Interest</th>
<th>Low / Low</th>
<th>Med / Low</th>
<th>Med / High</th>
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<tr>
<td>Consolidation:</td>
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<td>②</td>
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<td>④ ×</td>
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<td>×</td>
<td>×</td>
<td>④</td>
<td>⑤</td>
</tr>
</tbody>
</table>
Scenarios (2/2)

1. “No-Value Service“
2. “Slow Adoption“
3. “Growing Interest“
4. “Growing Value“
5. “Full-Value Service“

Results

Q1. What is the current state of electronic consumer billing in Germany?

Q2. What are the challenges that electronic consumer billing faces in Germany?

Q3. How is the market likely to develop and how should service providers and billers approach consumer billing?
State of the Market (Q₁)

- Electronic consumer billing in Germany is still in a nascent phase.
- So far, no key players, low differentiation in available services
- Mostly high volume billers in Telco sector offer electronic bills
  - biller direct only
  - low user value
  - billers do not leverage electronic consumer billing
    - cost savings
    - customer relationship
- For smaller volumes electronic consumer billing is seen as risky
  - high initial investment in relation to savings
  - adoption of systems is hard to project

⇒ Great possibilities for market entry, yet very uncertain and risky!

Challenges (Q₂)

- Electronic consumer billing is usually a part of internal process optimizations
  - Mainly seen by billers as cost savings initiative
  - Current solutions deliver little to no added value to the consumer
    - Therefore, the adoption rates are far below the expectations and requirements for success
- Legal Requirements
  - Qualified Electronic Signatures
    - Complicated to implement and use
- Payment integration (EBPP) is not seen as needed
  - Domination of direct debit payments
- Double Chasm
• When marketing services to billers, service providers need reference cases
• However, unless biller succeed in driving the adoption of their individual solutions, these references do not exist
• Service providers must therefore concentrate on developing services that deliver an added value to the consumer
Strategic Recommendations (Q₃) (1/2)

• Successful adoption of electronic consumer billing requires a bottom-up approach, starting from the consumer
• A comprehensive billing strategy is needed,
  • defining the target customers and how to address them
  • defining the benefits to that target group
  • defining the timeframe of adoption and expected cost-savings
• Service providers have to develop their services with the consumer in mind, even though they will not sell directly to the consumer
• Service providers consult and support billers in the development of an individual billing strategy
  • Service providers become service enablers

Strategic Recommendations (Q₃) (2/2)
Summary

- Electronic consumer billing in Germany has a very difficult position
  - A multitude of different factors influence the development
- Determined first-movers have the chance to influence market development
- Main focus should be on driving consumer adoption
  - Billers must offer their customers an added value to justify individual switching efforts (paper to electronic)
    - Billing strategy
  - Service providers must help billers drive adoption to create success stories as reference cases
- The market is not developed enough to predict timeframes

Questions

Thank you!

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