Business Models and Revenue Logics in the Software Industry

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The Context of Business Model

(extended from Linder 2000; Äijö 2001; Pigneur 2002)
A Business Model is about

How does a business operate in practice?

- The manifestation of both business idea and business strategy in practice
- How the business is adding value to its customers and stakeholders?
- What is the combination of various elements of business?

How does the business gain money?

- Sources of revenue (vs. stakeholders' utilities)
- Pricing & cost structure
- Lock-in effects
- Network economies

Anchoring Business Model to related concepts

- Business Idea
  - What?, To Whom?, How?
  - (Image?)

- Business Strategy
  - Means for achieving strategic objectives?
  - With what resources / input factors?

- Business Plan
  - A written description of the basic concepts how a company is aiming at putting its business idea & business strategy into operation.
  - Includes description of markets, (+development trends), competition, customers' needs & their development, marketing plan, finances, product development plan, risks, strengths, opportunities & threats, etc.
### Some Definitions of Business Model

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timmers (1998)</td>
<td>Architecture for product, service and information flows, and definition of the sources of revenue</td>
</tr>
<tr>
<td>Amit and Zott (2000)</td>
<td>Value creation processes, description of who are in the business and what they do, and value appropriation processes (value collection)</td>
</tr>
<tr>
<td>Mahadevan (2000)</td>
<td>Value stream for the business partners and buyers, and logistical stream, and definition of revenue stream.</td>
</tr>
<tr>
<td>Afuah and Tucci (2001)</td>
<td>Emphasis on customer value. Description of activities to underpin the planned value and implemented by people. Description of revenue sources, pricing strategies and methods, sustainability of making profits.</td>
</tr>
<tr>
<td>Petrovic et al. (2001)</td>
<td>“Business system” for creating value, that lies behind the actual processes.</td>
</tr>
</tbody>
</table>

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### The Focus of Business Model Definitions

**Operational View**
- Modeling the company; how to establish and use information systems and computers to support and automate operations and internal functions.

**(Inter)net Economy View**
- Modeling the pinpoints; how to conduct e-business and establish interfaces to automate functions between companies, what does the company do in value network, create new revenue logics.

**Strategic View**
- Modeling the business; how to systematically capture, describe and compare your existing business, and create new opportunities with(in) the value network.

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1970s-1980s 1990s 2000s

(C) R. Rajala 2003 (Rajala et al. 2003)
Frameworks for analysing business models

- Business Models are effected by various external/environmental factors
- Attempts to identify internal elements of business models (~2-7); consensus on essential elements
  - Constructive character – Emphasises identification of BM elements and linkages (typical in academic literature)
  - Evaluative character – Recognises BM as a tool to describe businesses through elements (produces graphs & stories)
- Refers to a single company in a single product/market situation
- Some frameworks describe how business models change according to life cycle phase

A Business Model Ontology

WHO?
Who are customers, how to manage relationships with them?

WHAT?
What is the scope of products and services, its value for the customer, the capabilities to innovation?

HOW MUCH?
What is the revenue model / profit model / cost model?

HOW?
How to organize infrastructure, its resources, the knowledge and the structure of costs, manage value chain activities and processes, build partner network to achieve performance?

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"**Product Strategy** here describes the focus of product development and the core product and service proposition. In addition to this, it describes the way the product development work is organized."

<table>
<thead>
<tr>
<th>Customer-specific</th>
<th>Standardised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customised product or solution</td>
<td>Standardised on-line service</td>
</tr>
<tr>
<td>Product platform</td>
<td>Modular product family/ Product line</td>
</tr>
<tr>
<td>Uniform core product</td>
<td></td>
</tr>
</tbody>
</table>

(Rajala et al. 2003)
Key Elements of a Business Model: Distribution model

“Distribution model here describes the way the marketing of the product and service offering has been organized and who are the sellers and marketers. Distribution model also characterizes the sales process and its outcome, i.e. the agreement between the vendor and a customer about the solution & service delivered.”

Key Elements of a Business Model: Services and Implementation model

“Services and Implementation model here describes how the product offering will be dispatched to customers as working solutions: what services are needed and who produces them?”
"Revenue logic here describes the way the software business generates its revenue and profit."

<table>
<thead>
<tr>
<th>Key Elements of a Business Model: Revenue Logic</th>
</tr>
</thead>
</table>

- **T&M & Fixed (Value-based) Pricing**
- **License sales and royalties**
- **Revenue sharing**
- **Hybrid models and loss-leader pricing***
- **Media model**

*(Rajala et al. 2003)*

* Loss-leader pricing here means selling something for less than its value to support sales of some other part of the product/service proposition. Also, it can be used to gain customer base for later revenue.

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**Sample Profiles**

<table>
<thead>
<tr>
<th>Product development focus</th>
<th>Customised project or solution</th>
<th>Product Platform</th>
<th>Uniform core product</th>
<th>Modular product family</th>
<th>Standardised online service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services &amp; Implementation</td>
<td>IT Consulting or Customer-specific system work</td>
<td>System integrating</td>
<td>Software deployment</td>
<td>Outsourcing / ASP</td>
<td>Self-service</td>
</tr>
<tr>
<td>Distribution model</td>
<td>Direct contact with customers</td>
<td>Reseller or agent model</td>
<td>Republisher / OEM model</td>
<td>Distributor / Dealer model</td>
<td>Partner network</td>
</tr>
<tr>
<td>Revenue logic</td>
<td>Effort-, cost-, or value-based pricing</td>
<td>License sales and royalties</td>
<td>Revenue sharing</td>
<td>Hybrid models and Loss leader-pricing</td>
<td>Media model</td>
</tr>
</tbody>
</table>

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(Adapted from Rajala et al. 2001)

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Arrak Software, en|chrome  
Benefect  
Synera

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Life Cycle Examination of Business Models
- Business in the shifting sands -

Pressures for Change
## Product Marketing Life Cycle

<table>
<thead>
<tr>
<th>Phase in Life Cycle</th>
<th>Introduction</th>
<th>Growth</th>
<th>Maturity</th>
<th>Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Brand development</td>
<td>Brand reinforcement</td>
<td>Brand repositioning</td>
<td>Brand modification</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Establish market position</td>
<td>Expand target market</td>
<td>Seek new market segments</td>
<td>Prepare for re-entry</td>
</tr>
<tr>
<td><strong>Product strategy</strong></td>
<td>Assure high quality</td>
<td>Identify weaknesses</td>
<td>Adjust size, package</td>
<td>Modify features</td>
</tr>
<tr>
<td><strong>Advertising objectives</strong></td>
<td>Build brand awareness</td>
<td>Provide information</td>
<td>Differentiate from competition</td>
<td>Educate on changes</td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
<td>Build distribution network</td>
<td>Solidify distribution relationships</td>
<td>Maintain distribution</td>
<td>Re-establish and deliver new version</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Skimming or penetration strategy</td>
<td>Meet competition</td>
<td>Use price deals</td>
<td>Maintain price</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Cravens 1987

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## Challenges at Different Phases

- **Profitability**
- **Scale**
- **Visibility**
- **Liquidity**

**Source:** Moore 2000

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Business Model Life Cycle

Product Development

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

Core (technology) Product

Whole Product

Fully integrated, commoditized whole product

Marketing & Sales

- Direct Sales
- Recruit Partners
- Eliminate Partners
- Find caretakers

Adapted from Moore 2000

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Business Model Life Cycle

Revenue Logic

- Skimming or Loss-leader pricing
- Various alternatives for Licensing & Hybrid Media model
- Support selling, Accessorizing, Brand licensing, Franchising, etc.

Innovators
Early Adopters
Early Majority
Late Majority
Laggards

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Remarks on Revenue Logics

- The significance of revenue logic has increased in business planning.
- Efficient pricing can not be based (solely) on costs. Instead, costs determine the volume of profitable operation.
- In the consumer businesses, end-users are willing to pay for software only in exceptional cases.
- "Cannibalism" in software markets has been very effective.
- Information is costly to produce but incredibly cheap to reproduce (follows from high fixed costs and low marginal costs!)

Price information according to its value, not according to its cost

Cost Structures in Software Business

\[ \text{AFC} = \text{average fixed costs} \]
\[ \text{AVC} = \text{average variable costs} \]
\[ \text{AC} = \text{average costs} \]
**Producer’s Surplus**

![Diagram of Producer’s Surplus]

*Profit* [the difference between total revenue (Supply x Price) and Average Costs (AC), as shown by the colored rectangle] is thought to be maximal in this perusal when the marginal cost (MC) equals price.

"Cost Laws"

- Costs are not sufficient basis for pricing, but affect the profitability at different volumes of operation
- “Once the first copy has been produced, costs are sunk and cannot be recovered”
- “Multiple copies can be produced (but not sold) at roughly constant per-unit costs”
- There are no natural capacity limits for additional copies of software, but marginal costs may rise
- “Information commodities don’t last… price pushed to zero!”
Pricing

- Know your customer
- Personalize your product and pricing
- Know your costs, but accomplish pricing according to benefits rather than costs
- Use promotions to measure demand
- Offer product line - users choose version best suited to their needs
- “To discourage entry, avoid greed and play tough - send signals about aggressiveness”

References

A report of the SBM study has been published in the series of Technology Review of Tekes:


Other publications considering the SBM framework include