Software Economics

Cost Structure
Today I feel ...

A. Wonderful
B. Quite ok, thank you
C. Nii ja naa
D. Ära küsi

![Bar chart showing percentages](chart.png)
How many hours did you spend on this course since last lecture?

A. 0-2 hours
B. 2-4 hours
C. 4-6 hours
D. 6-8 hours
E. 8-10 hours
F. More than 10 hours
In this course, I feel

A. I am ahead of the course
B. I am just in line with the course
C. I am a bit behind but it's okay
D. I am behind but I can manage to catch up by myself
E. I am behind and I need help
Cost Structures

Describes the costs for operating the business model.
Questions about costs

- What are the fundamental costs my business has?
- Is my business more cost-driven or value-driven?
- Are my costs mostly fixed or variable (moving with certain parameter)?
- What key resources make up a big block of my costs?
- What key activities make up a big chunk of my costs?

COSTS MATTER

October 6, 2016
Cost vs. Value Driven

- Their value proposition is heavily connected to “low cost”
  - Maximum automation
  - Extensive Outsourcing (costly functions)
  - Efficiency all across the organization
- Price wars occur – the one with the lowest cost structure survives
- Examples – Ryan Air
Value Driven

- Focus on value creation for customers so costs are not the focus (they can charge more).
  - Premium Value
  - Personalized Service
- If needed to increase profitability, it's not by cutting costs that can affect value perceived by the customers.
- Competition is not on price but value
- Examples: Luxury Hotels
“You never actually own a Patek Philippe, you merely look after it for the next generation.”
Trade off ...

Most companies are perhaps somewhere in between

Cost-driven Value-driven
Types of Costs?

Fixed Costs

- Costs that are independent of volume (usually time related costs).

- Rent
- Salaries
- Production facilities
- Loan payments
Types of Costs?

Variable Costs
- Costs that change with volume.
  - The input cost of production (COGS)
  - Commissions
  - Cost per time unit used
### Income Statement

**October 6, 2016**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REVENUES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues before reimbursements (&quot;Net revenues&quot;)</td>
<td>$31,047,931</td>
<td>$30,002,394</td>
<td>$28,562,810</td>
</tr>
<tr>
<td>Reimbursements</td>
<td>1,866,493</td>
<td>1,872,284</td>
<td>1,831,475</td>
</tr>
<tr>
<td><strong>Revenues</strong></td>
<td>32,914,424</td>
<td>31,874,678</td>
<td>30,394,285</td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of services:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of services before reimbursable expenses</td>
<td>21,238,692</td>
<td>20,317,928</td>
<td>19,178,635</td>
</tr>
<tr>
<td>Reimbursable expenses</td>
<td>1,866,493</td>
<td>1,872,284</td>
<td>1,831,475</td>
</tr>
<tr>
<td>Cost of services</td>
<td>23,105,185</td>
<td>22,190,212</td>
<td>21,010,110</td>
</tr>
<tr>
<td>Sales and marketing</td>
<td>3,505,045</td>
<td>3,582,833</td>
<td>3,481,891</td>
</tr>
<tr>
<td>General and administrative costs</td>
<td>1,803,943</td>
<td>1,819,136</td>
<td>1,835,646</td>
</tr>
<tr>
<td>Pension settlement charge</td>
<td>64,382</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reorganization benefits, net</td>
<td>—</td>
<td>(18,015)</td>
<td>(272,042)</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>28,478,555</td>
<td>27,574,166</td>
<td>26,055,605</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest income</td>
<td>33,991</td>
<td>30,370</td>
<td>32,893</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(14,578)</td>
<td>(17,621)</td>
<td>(14,035)</td>
</tr>
<tr>
<td>Other expense, net</td>
<td>(44,752)</td>
<td>(15,560)</td>
<td>(18,244)</td>
</tr>
<tr>
<td><strong>INCOME BEFORE INCOME TAXES</strong></td>
<td>4,410,530</td>
<td>4,297,701</td>
<td>4,339,294</td>
</tr>
</tbody>
</table>
Which company?

A. Coca Cola
B. ABB
C. Accenture

The correct answer is C. Accenture.
## Income Statement

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REVENUES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues before reimbursements (&quot;Net revenues&quot;)</td>
<td>$31,047,931</td>
<td>$30,002,394</td>
<td>$28,562,810</td>
</tr>
<tr>
<td>Reimbursements</td>
<td>1,866,493</td>
<td>1,872,284</td>
<td>1,831,475</td>
</tr>
<tr>
<td><strong>Revenues</strong></td>
<td>32,914,424</td>
<td>31,874,678</td>
<td>30,394,285</td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of services:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of services before reimbursable expenses</td>
<td>21,238,692</td>
<td>20,317,928</td>
<td>19,178,635</td>
</tr>
<tr>
<td>Reimbursable expenses</td>
<td>1,866,493</td>
<td>1,872,284</td>
<td>1,831,475</td>
</tr>
<tr>
<td><strong>Cost of services</strong></td>
<td>23,105,185</td>
<td>22,190,212</td>
<td>21,010,110</td>
</tr>
<tr>
<td>Sales and marketing</td>
<td>3,505,045</td>
<td>3,582,833</td>
<td>3,481,891</td>
</tr>
<tr>
<td>General and administrative costs</td>
<td>1,803,943</td>
<td>1,819,136</td>
<td>1,835,646</td>
</tr>
<tr>
<td>Pension settlement charge</td>
<td>64,382</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reorganization benefits, net</td>
<td>—</td>
<td>(18,015)</td>
<td>(272,042)</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>28,478,555</td>
<td>27,574,166</td>
<td>26,055,605</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td>4,435,869</td>
<td>4,300,512</td>
<td>4,338,680</td>
</tr>
<tr>
<td>Interest income</td>
<td>33,991</td>
<td>30,370</td>
<td>32,893</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(14,578)</td>
<td>(17,621)</td>
<td>(14,035)</td>
</tr>
<tr>
<td>Other expense, net</td>
<td>(44,752)</td>
<td>(15,560)</td>
<td>(18,244)</td>
</tr>
<tr>
<td><strong>INCOME BEFORE INCOME TAXES</strong></td>
<td>4,410,530</td>
<td>4,297,701</td>
<td>4,339,294</td>
</tr>
</tbody>
</table>
## Income Statement

### Year Ended December 31,

(In millions except percentages and per share data)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET OPERATING REVENUES</strong></td>
<td>$44,294</td>
<td>$45,998</td>
<td>$46,854</td>
<td>(4)%</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>17,482</td>
<td>17,889</td>
<td>18,421</td>
<td>(2) (3)</td>
</tr>
<tr>
<td><strong>GROSS PROFIT</strong></td>
<td>26,812</td>
<td>28,109</td>
<td>28,433</td>
<td>(5) (1)</td>
</tr>
<tr>
<td><strong>GROSS PROFIT MARGIN</strong></td>
<td>60.5%</td>
<td>61.1%</td>
<td>60.7%</td>
<td></td>
</tr>
<tr>
<td>Selling, general and administrative expenses</td>
<td>16,427</td>
<td>17,218</td>
<td>17,310</td>
<td>(5) (1)</td>
</tr>
<tr>
<td>Other operating charges</td>
<td>1,657</td>
<td>1,183</td>
<td>895</td>
<td>40</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td>8,728</td>
<td>9,708</td>
<td>10,228</td>
<td>(10) (5)</td>
</tr>
<tr>
<td><strong>OPERATING MARGIN</strong></td>
<td>19.7%</td>
<td>21.1%</td>
<td>21.8%</td>
<td></td>
</tr>
<tr>
<td>Interest income</td>
<td>613</td>
<td>594</td>
<td>534</td>
<td>3</td>
</tr>
<tr>
<td>Interest expense</td>
<td>856</td>
<td>483</td>
<td>463</td>
<td>77</td>
</tr>
<tr>
<td>Equity income (loss) — net</td>
<td>489</td>
<td>769</td>
<td>602</td>
<td>(36) 28</td>
</tr>
<tr>
<td>Other income (loss) — net</td>
<td>631</td>
<td>(1,263)</td>
<td>576</td>
<td>*</td>
</tr>
<tr>
<td><strong>INCOME BEFORE INCOME TAXES</strong></td>
<td>9,605</td>
<td>9,325</td>
<td>11,477</td>
<td>3 (19)</td>
</tr>
</tbody>
</table>

### Year Ended December 31,

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock-based compensation expense</td>
<td>$236</td>
<td>$209</td>
<td>$227</td>
</tr>
<tr>
<td>Advertising expenses</td>
<td>3,976</td>
<td>3,499</td>
<td>3,266</td>
</tr>
<tr>
<td>Selling and distribution expenses</td>
<td>6,025</td>
<td>6,412</td>
<td>6,419</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>6,190</td>
<td>7,098</td>
<td>7,398</td>
</tr>
<tr>
<td><strong>Selling, general and administrative expenses</strong></td>
<td>$16,427</td>
<td>$17,218</td>
<td>$17,310</td>
</tr>
</tbody>
</table>

October 6, 2016
Which Company?

A. Coca Cola
B. ABB
C. Tesla
D. TransferWise

A. Coca Cola

68%

5%

Coca Cola
ABB
Tesla
TransferWise
## Income Statement

### Year Ended December 31,

(In millions except percentages and per share data)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET OPERATING REVENUES</strong></td>
<td>$44,294</td>
<td>$45,998</td>
<td>$46,854</td>
<td>(4)%</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>17,482</td>
<td>17,889</td>
<td>18,421</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>GROSS PROFIT</strong></td>
<td>26,812</td>
<td>28,109</td>
<td>28,433</td>
<td>(5)</td>
</tr>
<tr>
<td><strong>GROSS PROFIT MARGIN</strong></td>
<td>60.5%</td>
<td>61.1%</td>
<td>60.7%</td>
<td>(1)</td>
</tr>
<tr>
<td>Selling, general and administrative expenses</td>
<td>16,427</td>
<td>17,218</td>
<td>17,310</td>
<td>(5)</td>
</tr>
<tr>
<td>Other operating charges</td>
<td>1,657</td>
<td>1,183</td>
<td>895</td>
<td>40</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td>8,728</td>
<td>9,708</td>
<td>10,228</td>
<td>(10)</td>
</tr>
<tr>
<td><strong>OPERATING MARGIN</strong></td>
<td>19.7%</td>
<td>21.1%</td>
<td>21.8%</td>
<td>(5)</td>
</tr>
<tr>
<td>Interest income</td>
<td>613</td>
<td>594</td>
<td>534</td>
<td>3</td>
</tr>
<tr>
<td>Interest expense</td>
<td>856</td>
<td>483</td>
<td>463</td>
<td>77</td>
</tr>
<tr>
<td>Equity income (loss) — net</td>
<td>489</td>
<td>769</td>
<td>602</td>
<td>(36)</td>
</tr>
<tr>
<td>Other income (loss) — net</td>
<td>631</td>
<td>(1,263)</td>
<td>576</td>
<td>*</td>
</tr>
<tr>
<td><strong>INCOME BEFORE INCOME TAXES</strong></td>
<td>9,605</td>
<td>9,325</td>
<td>11,477</td>
<td>3</td>
</tr>
</tbody>
</table>

### Year Ended December 31,

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock-based compensation expense</td>
<td>$236</td>
<td>$209</td>
<td>$227</td>
</tr>
<tr>
<td>Advertising expenses</td>
<td>3,976</td>
<td>3,499</td>
<td>3,266</td>
</tr>
<tr>
<td>Selling and distribution expenses</td>
<td>6,025</td>
<td>6,412</td>
<td>6,419</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>6,190</td>
<td>7,098</td>
<td>7,398</td>
</tr>
<tr>
<td><strong>Selling, general and administrative expenses</strong></td>
<td>$16,427</td>
<td>$17,218</td>
<td>$17,310</td>
</tr>
</tbody>
</table>
Economies of Scale and Scope

Economies of Scale

Type of cost structure that causes the average cost of producing something to decrease as the volumes increase.

- Printing a book – First 100 copies cost 3 000€ but to print 1000 copies cost 4 000€. Compare average cost per book.

- Do software products follow “Economies of Scale”?

- Why does this matter?
How does this reflect scale?

Breakeven oil prices

Source: IMF 2015 projections

Economies of Scope

Factors that affect the cost of producing different but compatible products together as opposed to producing them separately (or multiple markets)

- Centralized functions (HR, Marketing etc.)
- Production of different but compatible products (using same resources)
  - Examples: Coca Cola, McDonalds, Proctor & Gamble

- Does Google use “Economies of Scope”?
Exercise

Who are the most important costs in your selected company?

Which key resources are most expensive?

Which key activities are most expensive?

What is their cost structure in terms of Fixed vs. Variable and Scale vs. Scope?

About 20 min.
Software Economics

Revenue Streams
Revenue Streams

Describes the cash that the company generates from its business model.
Profit = Revenues − Costs
Types of Revenue Streams?

Asset Sale

- Perhaps most common revenue stream we encounter in our daily life.

- Selling ownership rights of a physical product
  - Books
  - Food
  - Cars
  - Electronics
Types of Revenue Streams?

**Usage Fee**

- Based on how much a customer uses a service or product.
  - **Examples**
    - Phone calls (pay per minute)
    - Hotels (pay per night)
    - DHL (pay per package sent)
Types of Revenue Streams?

Subscription Fee

- Based on selling ongoing or continuous access to a service.
  - Examples
    - Membership (MyFitness)
    - Online Games (World of Warcraft)
    - Spotify (monthly fee)
Types of Revenue Streams?

Renting/Leasing

- Based on temporary (time based) access or right to use a particular product or service for a fee.

- Examples
  - Apartments
Types of Revenue Streams?

Licensing Fee

- Based on granting access to customers to some intellectual property in exchange for a fee.

  Examples
  - Patents such as bluetooth
  - Movies (regional licenses)
Types of Revenue Streams?

Brokerage (Intermediary) Fee

- Based on a cut with each successful transaction between parties that use a service.

- Examples
  - MasterCard or Visa (a percentage of each sell)
  - Real Estate brokers
  - Online Trading Solutions

AVANZA

More to you, less to the bank.

October 6, 2016
Types of Revenue Streams?

Advertising Fee

- Based on fees in exchange for advertising a particular product, service or brand.

- Examples
  - Media (TV, Radio, Newspapers)
  - Social Media (Facebook)
  - Webpages (Wordpress, Google)
What is the type of revenue stream?

A. Brokerage fee
B. Asset sale
C. Advertising
D. Usage fee

[Bar chart showing: Brokerage fee 100%, Asset sale 0%, Advertising 0%, Usage fee 0%]
What is the type of revenue stream?

A. Brokerage fee
B. Subscription
C. License
D. Usage fee

Microsoft Office

Bar chart showing:
- Brokerage fee: 0%
- Subscription: 8%
- License: 92%
- Usage fee: 0%
What is the type of revenue stream?

A. Usage fees
B. Asset sale
C. Renting
D. Usage fee

The correct answer is D. Usage fee.
Exercise

How is your company getting paid for their value proposition?

What is their type(s) of revenue stream(s)?

Does the customer have a choice, if so, what choices are there?

About 15 min.
Software Economics

Pricing
Profit = Revenues – Costs

Revenue Model
What is a market?

*Market* refers to the group of consumers or organizations that is interested in the product, that has resources to purchase the product, and is permitted by law and other regulations to acquire the product.

http://www.netmba.com/marketing-market/definition/
Top Down Estimation

From the total available market to “your market”.

“The total market demand for a product or service”
Top Down Estimation

From the total market to “your market”.

“The segment of the TAM targeted by your products/services that is within your reach (e.g. geographical reach)”
Top Down Estimation

From the total market to “your market”.

“Target Market is the part of SAM that you can get/capture”
Top Down Estimation

Figure from http://www.slideshare.net/hatchincubator/revenue-estimation
**HOW BIG IS THE MARKET?**

- **Marketplace**
  - Average 210 sales per product*
  - $1.7B

- **Phase 1**
  - Software Professionals
  - US Only
  - $3.8M

- **Phase 2**
  - Software Hobbyists
  - US Only
  - $6.5M

- **Phase 3**
  - Simulation + Creative Professionals
  - International rollout
  - $27.8M

- **Phase 4**
  - Creative Hobbyists
  - International
  - $33.3M

*Marketplace projections based on analysis of the top 100 crowdsourced hardware campaigns*
Bottom Up Estimation

Start from the bottom

1. Average customer buys for 10 000 €
2. Hire 5 sales representatives, each will sell 5 / month
3. Total revenue = 10 000 * (5 * 5) * 12 = 3 million € / year

1. We have one restaurant in the first year.
2. We will sell for 300 € per day and we will be open 7 days/week
3. Sales for first year = 365 days * 300 € = 109 500 €
Sales/Revenues = sold quantity * price

Pricing Model
Cost Based Pricing

- Setting the price at a level higher than the cost of producing the product or service (direct and indirect).

- Simple but ignores market influences and competitors.
Types of Pricing Strategies?

Value Based Pricing

- Considering how much value is created for the customers (willing to pay for a product or service).

- Can be differentiated on basis of type of customer or size of customer – (kickboard – pricing depending on size of the customer)
Types of Pricing Strategies?

Competition Driven Pricing

- Price is determined by looking at how much your competitors are charging for the same product or service.

- Same, slightly higher or slightly less?
Dynamic Pricing Strategies

- Negotiations – Large Installations
- Yield Management – airline seats (price changes depending on when you buy)
- Real-Time Market – Stock Markets
- Auctions - Ebay
New Product Pricing Strategies

Prestige Pricing / Image Pricing:

Prices set higher than normal as lower prices will not help sales (luxury products, Apple, Nike, experience of Porsche)

Market Skimming Pricing:

Setting a high price to “skim” / get higher revenue – fewer sales but better margins (night club that is “in” charges more in entrance fee and drinks)

Market Penetration Pricing

Set low price to get market shares – more sales but less profit margin.
Sales Cloud Pricing

Sell faster and smarter with any of our fully customizable CRM editions.

<table>
<thead>
<tr>
<th>SalesforceIQ CRM Starter</th>
<th>Lightning Professional</th>
<th>Lightning Enterprise</th>
<th>Lightning Unlimited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out-of-the-box CRM for up to 5 users</td>
<td>Complete CRM for any size team</td>
<td>Deeply customizable sales CRM for your business</td>
<td>Unlimited CRM power and support</td>
</tr>
<tr>
<td>Starting at $25 USD/user/month* (billed annually)</td>
<td>$75 USD/user/month* (billed annually)</td>
<td>$150 USD/user/month* (billed annually)</td>
<td>$300 USD/user/month* (billed annually)</td>
</tr>
<tr>
<td>TRY FOR FREE</td>
<td>TRY FOR FREE</td>
<td>TRY FOR FREE</td>
<td>TRY FOR FREE</td>
</tr>
<tr>
<td>One list</td>
<td>Account and contact management</td>
<td>Get all Professional features PLUS</td>
<td>Get all Enterprise features PLUS</td>
</tr>
<tr>
<td>Automatic data capture</td>
<td>Opportunity tracking</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Upgrade whenever you want. Simple pricing, pay monthly.

**Free**
- no limits on users / time
- Unlimited message history
- Unlimited number of conversations
- Unlimited number of integrations
- Share up to 5GB files per user
- Native apps for Windows, Mac, Android & iPhone

**Premium**
- €1 per user / month
- Unlimited message history
- Unlimited number of conversations
- Unlimited number of integrations
- Share up to 50GB of files per user
- Native apps for Windows, Mac

**I'm special**
- For teams with more than 20 members
- Contact us and let's talk things through

LET'S TALK
$475 annually per license

Use with all IDEs, major containers and 90+ frameworks
Available as dedicated or managed licenses
Support and updates included with subscription

Number of devs 10 devs
Build + Deploy time 3.1 minutes
Redeploys per hour 4 times
Avg. dev annual salary 48000 USD

JRebel will save you $120,292 per year

- JRebel improves developer efficiency by 26%, allowing your team to complete the work of 12.6 developers.
- Doing this without JRebel would require 2.6 extra developers.
- This would cost you $125,042 every year.
- JRebel licenses for your team would cost $4,750 each year.
- Your investment will pay off in 11 days.

No surprises. No complicated list of features that cost extra. Everything you need to run a more successful business.

Discount available with annual billing.
$250 minimum monthly fee.
Onboarding fee based on portfolio size. $400 minimum.
Request More Information

First Name
Last Name
Email Address
Phone #
Job Title
Role
How Do You Contribute To School Improvement?
District or School Name
State
Institution Type
How Do You Currently Track Student Behavior or School Culture?
PRINCIPALS ONLY: Do You Want Try Kickboard FREE For 30 Days?

SUBMIT
Exercise

What revenue & pricing model does your company have?

What options/choices do they give to the customer in regards to pricing (based on what criteria)?

About 10 min.
Software Economics

Business Model Canvas
Canvas for Apple

Business Model Canvas: Apple

Key Partners: Manufacturers, App store developers, Cellular service providers

Key Activities: Design, Software development, Manufacturing, Quality control

Value Propositions: Design, Performance, Brand/Status, Convenience/Usability

Customer Relationship: Self-service, Personal assistance

Customer Segments: Mass market, Multi-sided platforms

Key Resources: Human, Intellectual, Physical, Music, television, and movie industries, Publishers

Channels: Apple retail stores, Other retailers, Apple.com

Cost Structure: Cost-driven, Economies of scale

Revenue Streams: Sale of products, Media sales/licensing, Rental and subscription fees
Which company is it?

A. Hertz car rental

B. Uber

C. Lux Express

D. Tallink Takso

Key Partners
- Drivers who own cars
- Payment Processors
- Mapping/Data Providers
- Local Authorities

Key Activities
- Platform & App Development
- Marketing to balance supply and demand
- Driver Onboarding
- Key Resources
- Uber Platform
- Pricing Algorithms
- Routing Algorithms

Value Propositions
- On-Demand
- Cash-free
- Easy to order and short wait time
- Passengers on demand
- Easy to make additional money

Customer Relationships
- Highly automated

Customer Segments
- Passengers
- Drivers

Channels
- Mobile App
- Social Media Marketing
- Website
- Nur

Cost Structure
- Platform Development
- Sales & Marketing
- Salaries
- Driver Payments

Revenue Streams
- Pay-per-Ride Charges
- Premium Uber Eats
- Surge Pricing
Most business models can be categorized in different “patterns” based on a set of basic similarities.

The following categories are mostly discussed:

- Unbundling Business Models
- The Long Tail
- Multi-Sided Platforms
- FREE as a Business Model
Unbundling

Based on the idea that there are “three fundamentally different type of businesses”.

1. Customer Relationship Businesses
2. Product Innovation Businesses
3. Infrastructural Businesses

These businesses have different and significant “economic”, “competitive”, and “cultural” nature.

A company can have all under the same roof but usually it is better to “unbundle” them into separate entities so to avoid suboptimal trade-offs.
<table>
<thead>
<tr>
<th>Unbundling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Innovation</strong></td>
</tr>
<tr>
<td><strong>Economics</strong></td>
</tr>
<tr>
<td><strong>Competition</strong></td>
</tr>
<tr>
<td><strong>Culture</strong></td>
</tr>
</tbody>
</table>

Hagel and Singer, 1999
Examples

Infrastructure-Driven

Scope-Driven

Product-Driven

http://www.alexandercowan.com/3-steps-tips-creating-awesome-business-model-canvas/

October 6, 2016
The Long Tail Model

Business Models based on having high number of products that sell in low volumes.

Profitable as few “bestsellers” account for dominant part of the revenue.

- Requires low inventory but capability to make niche content/product quickly available to buyers.

- Netflix, eBay, YouTube
A concept introduced by Chris Anderson when analyzing the media business.

The idea is that selling a large number of niche products in small quantities, can add up to revenues equal or even more than revenues from blockbuster/hit/most sold products.

In short, selling less products for more.
The “bestsellers”

Focusing on a small number of products with large volume

http://www.slideshare.net/Alex.Osterwalder/long-tail-business-models-presentation/6-what_does_thismean_forbusiness_models
The “less-sellers”

focusing on a large number of products with low volume

http://www.slideshare.net/Alex.Osterwalder/long-tail-business-models-presentation/6-what_does_thismean_forbusiness_models
Made possible due to ...

**Democratization of Production Tools**
- Online publishing (books, music, videos)

**Democratization of Distribution**
- New platforms (Amazon, Youtube)

**Drastic lower costs of search (connect demand to supply)**
- Search and recommendation engines
- User ratings

Compare traditional publishing and new model of publishing

Warner Music Group

http://www.slideshare.net/Alex.Osterwalder/long-tail-business-models-presentation/6-what_does_thismean_forbusiness_models
<table>
<thead>
<tr>
<th>PARTNER NETWORK</th>
<th>KEY ACTIVITIES</th>
<th>OFFER</th>
<th>CUSTOMER RELATIONSHIPS</th>
<th>CUSTOMER SEGMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>content producers</td>
<td>platform management</td>
<td>platform for musicians &amp; fans/buyers</td>
<td>communities</td>
<td>niche segments</td>
</tr>
<tr>
<td>breadth of platform</td>
<td>match-making with taste</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KEY RESOURCES</th>
<th>DISTRIBUTION CHANNELS</th>
<th>COST STRUCTURE</th>
<th>REVENUE STREAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>platform maintenance</td>
<td>online</td>
<td>small revenues from many artists</td>
<td>music subscription service</td>
</tr>
<tr>
<td></td>
<td>niche segments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

http://www.slideshare.net/Alex.Osterwalder/long-tail-business-models-presentation/6-what_does_this_mean_for_business_models

October 6, 2016
Examples

ANATOMY OF THE LONG TAIL

Online services carry far more inventory than traditional retailers. Rhapsody, for example, offers 19 times as many songs as Wal-Mart’s stock of 39,000 tunes. The appetite for Rhapsody’s more obscure tunes (charted below in yellow) makes up the so-called Long Tail. Meanwhile, even as consumers flock to mainstream books, music, and films (right), there is real demand for niche fare found only online.

THE NEW GROWTH MARKET: OBSCURE PRODUCTS YOU CAN’T GET ANYWHERE BUT ONLINE

Sources: Erik Brynjolfsson and Jeffrey Hu, MIT, and Michael Smith, Carnegie Mellon; Barnes & Noble; Netflix; RealNetworks

https://www.wired.com/2004/10/tail/
Examples

The Real Cost of Music

Online music services don’t incur packaging, distribution, and retail fees—and they should charge accordingly.

Creation Costs

<table>
<thead>
<tr>
<th>Artist</th>
<th>$1.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>$5.00</td>
</tr>
<tr>
<td>Publishing</td>
<td>$0.96</td>
</tr>
</tbody>
</table>

Total Creation Costs = $7.46

Production Costs

| Packaging  | $0.75 |
| Distribution | $2.00 |
| Retail markup | $5.00 |

Total Production Costs = $7.76

$15.21 per CD

79¢ per song

Source: Jonathan Daniel and Joe Fleischer, Crush Music Media Management

https://www.wired.com/2004/10/tail/
Examples

“IF YOU LIKE BRITNEY, YOU’LL LOVE …”

Just as lower prices can entice consumers down the Long Tail, recommendation engines drive them to obscure content they might not find otherwise.

https://www.wired.com/2004/10/tail/
The Multi-Sided Platforms

Business Model based on bringing together two or more distinct but independent groups of customers and create value therefrom.

A platform that connects two (or more) different customer segments (user groups) that provide benefits to each other.

- Works on the basis that both groups are present.
- The platform (company product/service) creates value by facilitating this interaction.
- Such a business model needs “network effect”.

Examples

- Uber
- Lõunakeskus
- Piletid: PILETi LEVI
- American Express
- Alibaba.com
- Airbnb
The Free Business Model

Offer something for free to at least one customer segment and gain revenues from another.

Works on low cost of reproduction and distribution

Three types:

- Free offer based on multi-sided platforms (advertisement)
- Free basic services with optional premium services (freemium)
- Bait and hook – inexpensive initial offer luring to repeat purchases.

"Tree! Why $0.00 is the Future of Business." Wired Magazine. Anderson, Chris.
The Free Business Model

Free offer based on multi-sided platforms (advertisement)
Metro (free magazine)

<table>
<thead>
<tr>
<th>KP</th>
<th>KA</th>
<th>VP</th>
<th>CR</th>
<th>CS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>WRITE &amp; PRODUCE A DAILY PAPER</strong></td>
<td><strong>AD SPACE IN HIGH CIRCULATION FREE PAPER</strong></td>
<td><strong>ACQUISITION RETENTION</strong></td>
<td><strong>ADVERTISERS</strong></td>
</tr>
<tr>
<td>DISTRIBUTION AGREEMENTS WITH PUBLIC TRANSPORT NETWORKS</td>
<td>DISTRIBUTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td><strong>BRAND</strong></td>
<td><strong>FREE CITY-WIDE COMMUTER PAPER</strong></td>
<td></td>
<td><strong>COMmuters</strong></td>
</tr>
<tr>
<td>DISTRIBUTION NETWORK &amp; LOGISTICS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS$</td>
<td><strong>CONTENT, DESIGN &amp; PRINT OF A DAILY PAPER</strong></td>
<td>DISTRIBUTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R$</td>
<td></td>
<td><strong>FREE NEWSPAPER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>FEES FOR AD SPACE IN PAPER</strong></td>
<td></td>
</tr>
</tbody>
</table>

October 6, 2016
Free basic services with optional premium services (freemium)

Skype
The Bait & Hook Business Model

Bait and hook – inexpensive initial offer luring to repeat purchases.
Exercise

Which “type” of business model does your selected company fall under?

Motivate please.

About 10 min.
The tempo of today’s lecture was ...

A. Way to fast for me
B. Just right for me
C. A bit to slow for me
D. Way to slow, I was daydreaming
The materials (slides) were ...

A. Easy to follow and understand
B. Just about right
C. I was a bit lost at times
D. Mis asja, kas see on abstraktne kunst?