Market Research Basics: Industry Info
CSC 454: The Business of Software

Angela Henshilwood
Michelle Spence
Engineering & Computer Science Library
Carey Toane, Entrepreneurship Librarian
Gerstein Science Information Centre
• Getting started
• Market sizing and structure
  - Work break
• Industry resources overview
• Database demo
• Deciding which numbers to use
  - Work break
• Key technologies – Patent searching
• Evaluating sources
Outcomes:

After this workshop, you will have:

• Practical process for approaching market research and its challenges

• A recommended list of secondary sources to help build a snapshot of your industry

• A strategy to evaluate the information you find

• More confidence and success in pitching the market opportunity for your innovation
Where do you start?

• What is the problem you are solving?
  – What value does your solution have?
  – How will you measure your success?

• Who has this problem?
  – What do you need to know about them?

• Who else is solving this problem?
  – What do you need to know about them?
  – What makes your solution unique?
Where do you start?

- What is the problem you are solving?
  - What value does your solution have?
  - How will you measure your success?

- Who has this problem?
  - What do you need to know about them?

- Who else is solving this problem?
  - What do you need to know about them?
  - What makes your solution unique?
Where do you start?

**Industry research**

- What industry would your operations be involved in?
- What trade organizations are relevant to know about?
- Who are your competitors? New entrants? Key technologies? Opportunities for disruption?
STOP
HAMMER TIME!
Markets: Total, Sales, Target

Perfect World Scenario

No competitors

All the financing available to grow

Total Addressable

Adapted from Blank & Dorf, 2012
Markets: Total, Sales, Target

Real World Constraints
- Geography
- Competition
- Sales channels

Total Addressable
Sales Addressable

Adapted from Blank & Dorf, 2012
Markets: Total, Sales, Target

Priority Scenario
Most desirable
Most feasible

Total Addressable
Sales Addressable
Target

Adapted from Blank & Dorf, 2012
Segmentation example

ENERGY MANAGEMENT SYSTEMS INDUSTRY

Commercial

Smart Appliances

Residential

Single Family Homes

Adapted from Freesun Technologies Inc., 2011.
Two Approaches

**Top-down**

- **Statistic**
- **Assumption**
- **Data point**
- **Total market size**

Top-down estimates approach the true value from above, by starting with broad indicators which are narrowed down using assumptions.

**Pro** Often a quicker and easier way to size a market

**Con** Tends to give too high estimates

**Source:** Global Intelligence Alliance, 2012

---

**Bottom-up**

- **Total market size**
- **Segment total**
- **Supplier 1**
- **Supplier 2**
- **Supplier 3**
- **Supplier 4**

Bottom-up estimates approach the true value from below, by summing up known supply data from market participants.

**Pro** Often considered more conservative (accounts for capacity limitations of the industry).

**Con** Usually requires primary research, therefore often expensive to do.
Two Approaches

**Top-down**

- Statistic
- Assumption
- Data point

- Total market size

**Bottom-up**

- Total market size

- Segment total
- Supplier 1
- Supplier 2
- Supplier 3
- Supplier 4

Sources:

- Market research reports
- Industry forecasts
- Demographics
- Company profiles
- News media
- Primary research

Source: Global Intelligence Alliance, 2012
Estimation Modeling in 5 Steps

1. Brainstorm and map out possible inputs, outputs & calculations
2. Fill in data you currently have
3. Identify data gaps
4. Plan how to source and fill in data gaps
   – What can you answer and what do you guess?
5. Compare estimates as result of different models

Adapted from Global Intelligence Alliance, 2012
# Sourcing the Data: Secondary

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Example of source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics</td>
<td>Economic statistics</td>
</tr>
<tr>
<td></td>
<td>Customs databases</td>
</tr>
<tr>
<td></td>
<td>Government statistics</td>
</tr>
<tr>
<td>Industry data</td>
<td>Industry associations</td>
</tr>
<tr>
<td></td>
<td>Market research reports</td>
</tr>
<tr>
<td></td>
<td>Investor reports</td>
</tr>
<tr>
<td>Product data</td>
<td>Product brochures</td>
</tr>
<tr>
<td></td>
<td>Product reviews</td>
</tr>
<tr>
<td>News</td>
<td>Free public aggregators (incl. Google)</td>
</tr>
<tr>
<td></td>
<td>Fee-based news aggregators</td>
</tr>
<tr>
<td>Patent Literature</td>
<td>USPTO – Patents (US)</td>
</tr>
<tr>
<td></td>
<td>CIPO – Patents (Canada)</td>
</tr>
<tr>
<td></td>
<td>Espacenet (Europe)</td>
</tr>
<tr>
<td>Company &amp; Financial data</td>
<td>Public company directories</td>
</tr>
<tr>
<td></td>
<td>Securities exchanges (S.E.C., SEDAR)</td>
</tr>
<tr>
<td></td>
<td>Global company financials databases</td>
</tr>
<tr>
<td></td>
<td>Local company financials databases</td>
</tr>
</tbody>
</table>

Adapted from Global Intelligence Alliance, 2012
Industry Information

- IBIS World industry reports
- Technavio market research (Factiva)
- Dow Jones Industry Snapshots (Factiva)
- Kalorama Information (Marketresearch.com)
- Trade journals (CBCA Business)
- Associations and government (e.g. MaRS Startup Library, StatCan, Industry Canada)
- Consulting firm websites consulting firm (Deloitte, Ernst & Young, PWC, KPMG, Booz Allen)
Starting at the library

Entrepreneurship Guide

http://guides.library.utoronto.ca/entrepreneurship
Designing an app for dental health for children

• Children
  – child, kids

• Dental health
  – oral health, oral care, “brush AND teeth”, toothbrushing

• App
  – Mobile application
  – Are you designing for ipad? Tablet?
(child* OR kid*) AND ((tooth AND brush) OR “oral care” OR “oral hygiene” OR toothbrushing)) AND (app OR “mobile application*”)

Research Tip

• For reports that we don’t have access to, try searching for a summary in a press release or news article. Use:
  – Factiva
  – ProQuest

• If you can’t find a Canadian report, look for a global or US report to give you ideas on the state of the market or industry in general

• We can’t buy reports you find online
Startup Company Information

- MaRS Startup Library
- Techcrunch/Crunchbase
- Gust.com
- AngelList
- eMarketer.com daily newsletter
- CB Insights newsletter and research webinars
  - Gems like this
- Startup Digest - Health
Public Company Information

- Have to file with regulatory bodies = open
- Mergent
- Factiva
- Investext -> Investment banks and analysts
- Annual reports
Deciding which numbers to use

- Who sponsored the research?
- Who conducted the research?
- How big is the sample?
- How was the sample collected and who does it comprise?
- Is the methodology for the study explained?
- Are the research questions ambiguous or biased?
- Are the study findings or ‘highlights’ supported by the actual data?
- Does the data add up?
Patent searching

• Open sources on web
  – Global: Espacenet | Free Patents Online
  – Country sites: USPTO | CIPO

• Note: patents are for hardware tech, not software -> copyright

• Guide: Intro to Patents and Patent Searching

• Copyright: Helpful resources
Sourcing the Data: Primary

- Own employees
- Own supply-chain
- Industry experts
- Analysts
- Associations
- Academia

Adapted from Global Intelligence Alliance, 2012
Sourcing the Data: Interviews

• Motivate respondents through information sharing
• Trade information with each other
• Present info based on secondary research and industry expertise
• Have discussion at higher level

Adapted from Global Intelligence Alliance, 2012
Secondary to support primary

Customer Development
• Problem interviews
• Solutions interviews

One Minute Paper
Contact info

Angela Henshilwood
angela.henshilwood@utoronto.ca

Michelle Spence
michelle.spence@utoronto.ca

Carey Toane
carey.toane@utoronto.ca