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## Research & Quick Assessments

### Getting Started

- No one wants to spend a lot of time and energy developing a business plan for a venture that almost has no chance to succeed. (At least the professor doesn't.)
- **Start work with a quick assessment.** One wants to step back from the enthusiasm and dreams of the founders and look at the basics. Is there a real business here?

### Unattractive Industry Sectors (Fierce competition has non-financial goals.)

- Assuming you want to raise money from angel investors or from a venture capital fund, you should be aware that there are some kinds of business startups that are very difficult or impossible to finance, unless you invest your own or family money.
  - Except for “sin industries” and retailing, the sectors below all suffer from the same kind of fatal weakness, with respect to profitable equity investing. **Competition comes from people who do these things for the love of it.** There are so many people like this involved -- that financial investors have no reasonable chance to make any money.
    - ◆ Films & Broadway shows, music
    - ◆ Creative art in general (painting, etc.)
    - ◆ Farms
    - ◆ Sin / military goods (gambling, guns)
    - ◆ Restaurants (if single location)
    - ◆ Sports - teams, events, facilities
    - ◆ Education (some exceptions)
    - ◆ Retailing (if single location)
  - **The art world** is full of interesting people and a lot of creative expression, and void of investors willing to finance startups. Participants starve and lose money until they gain proven track records and reputations.
  - **Farming**, from an investor's viewpoint, is a kind of real estate asset that tends to be less rewarding for investors than owning a government bond.
  - **Gambling, illegal drugs**, etc. and dealing in the instruments of death and destruction clearly can be profitable activities. Most investors find these socially unacceptable.
  - People who love to cook -- dominate **the restaurant sector** (single location). Cooking is all that many of them are good at. 80% of new restaurants go bust within two years.
  - Wealthy people (who want to mingle with the athletes in the shower room, etc.) tend to dominate investing in **sports teams**. *Sports equipment*, however, may be OK.
  - People who love to teach and want to help others to learn, thankfully, dominate the **education** sector. Educational equipment and supplies may be a viable business, but the actual teaching function competes with local governments who have taxpayers as their financial backers. Sometimes a teaching business startup may succeed (day care centers, online learning), but the business concept needs to be truly unique.
  - Most new **retail stores** go broke quickly. You must finance the first location yourself.
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### **Phase One Research: Product -- Customers -- Market -- the Competition**

Many entrepreneurs have an **excessive focus on their proposed product** or service. They often seem to forget that they must make and sell the product to a receptive market at a profit, in order to have a successful business.

Some of the best new business ideas come from identifying a need in the market, and talking to potential customers about what they want. Then invent a product to meet the wants and needs of the market. This approach is in contrast to inventing a product, then trying to figure out if there is a market for it -- which often leads to a bad business plan.

In either case, once you have a new product or service idea, **write it down** on one page. You can use your one-page write-up as background for people to read, as you start doing more research about the market and the competition.

- o **How large is the market, and how fast is it growing?** Be sure to segment the market and focus on the specific segment that is your target. How much of this market segment can your company get (say) after five years? A 20% share is better than 5%.
- o **Do any potential customers actually want your new product?** Go *talk* to some! What do they say about your product idea? Can you induce any potential customer to agree to try out your product as a demo? Will any customers agree to a written, long-term contract to buy, if (say) the demo works?
- o **Who is the competition and how do they compete?** Is your product unique enough, compared to the competition, to make a big difference? There usually is more competition than an entrepreneur thinks there is. Do your homework *very* thoroughly at an early stage on competitors, since a surprise later on -- can be fatal.
- o **How will you produce your product?** Do you need a warehouse or assembly facility or special space? Outsource it? What will it cost to produce your product?
- o **Sales and marketing – how will you get customers?** Salesforce? TV ads? How much will it cost to get a customer?

**Write down your research results, on each of these six topics, on one page.**

You now will have a six-page write-up of your business idea, only one of which is a description of the new product or service! You are ready for Phase 2 of your research.

### **Phase 2: Revenues & Costs -- Business Model**

- o Business “model” -- **how do we make money?** Volume / Pricing / Costs?
  - o **Technical** -- patents, licenses, other?
  - o **People** -- who are the managers and people we need, skills, background / experience?
- Depending on the situation, you now may need to do a lot of research before you can answer all of these questions, even on a summary basis. (See the last section of this Lecture Note for research sources.) To which people should we talk?

## Interviews

**Talking to people is a key source of information**, ideas and color. The market and competitive situation is likely to be more complex than you might first think. Some tips:

- Make up a short, triple-spaced questionnaire before you go for the interview.
- If possible, send the questionnaire to your interviewee in advance.
- If not in advance, hand the questionnaire out at the start of the interview.
- Take good notes. Someone should write up notes afterward, and then distribute them.
- Include me as a cc on your meeting notes:

David M. Cromwell  
Yale School of Management  
PO Box 208200  
New Haven, CT 06520-8200  
Phone & Fax: (203) 603-9329 (Monday – Thursday noon)  
Phone & Fax: (212) 924-4740 (Thursday PM and Fridays, Weekends)  
**Email: DMCromwell @ aol.com**

- Be sure to get a business card or the equivalent information from each interviewee.
- Make up a comprehensive, project contact information list on an Excel spreadsheet.
- Keep your contact list up-to-date as the project develops. Very important.
- Interviews sometimes are tough to schedule. Start early and be persistent.

## Phase 3: Sanity Check

Unless you have *some* kind of an answer to each of the above Phase 1 and Phase 2 research areas, you may not be ready for a “sanity check.”

In one-off meetings with the professor, advisors and other coaches for each team, the professor/advisors may be able to offer some advice and assistance. But first:

- Write down (bullet points, one page maximum) what you think the “answers” are to each of these areas in outline format.
  - > What is the Product?
  - > Who are the Customers?
  - > Market size and growth
  - > Competition
  - > Production / distribution
  - > Sales & Marketing
  - > Technical / patents
  - > Revenue Model
- If you don’t know an “answer” to one of the above areas, then say so and try to list ways and means for finding out. Who, where, when and how?
- Hand over the written summary before you meet with the professor. Having something to read before a discussion, especially for a brainstorming session, makes a big difference and is much more time efficient.

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**Phase 3: Sanity Check** (Continued)

When you do know something about each of the foregoing key topics, next create these:

- o **Mission Statement.** Define the business concept with a very short (two or three sentences) mission statement. The mission statement should set broad goals (like making money) and should address strategic “basics” such as what market is served and what benefits are provided to the customers. Mission statements are difficult to create, but they can drive much that follows.
- o **Objectives.** **Companies need to set objectives / goals -- in order to achieve them.** Set three or four clear, measurable objectives (not more.) Examples:
  - To achieve \$2mm in sales by year three after startup.
  - To earn a 35% gross profit margin by the end of the first year.
  - To grow sales (customer base) at a compounded annual rate of 25% p.a.
  - To capture a 10% market share within two years, a 20% share with five years.
  - To have two products available for sale by June 30, 2003.
  - To find a strategic, corporate partner by the end of 2002.

*Objectives must be specific and measurable. Fuzzy generalities do not work.*
- o **Critical Success Factors.** Summarize three or four critical success factors. Focus on the main elements that make the business work. For example, for a museum shop, key success factors might be as follows. Prime store location; support from local area museums; and an experienced, professional management team.
- o **Break Even Analysis.** Figure out roughly what level of revenue you need to achieve cash flow break-even. How long will it take to get there? “Back of the envelope” is all that one needs at this stage. Do you need \$200,000 in revenue, \$2 million, or is it more like \$20 million? (Try to estimate the right number of zeros.) How many different customers is this? 10, 100, 1,000 or 10,000? Alternatively, how many products must you sell each year to break-even? (Or both.)
- o **Upside Potential.** If everything works better than expected, how large could your company eventually grow within (say) seven years? Annual revenues of \$5 million? Or maybe \$25 million? \$50 million? Don’t go hog wild. Pick an estimate that you think you have at least a 50% chance of exceeding.

**All of the above will change by the time a final plan is done.** But you need a preliminary view on these things for a serious sanity check. We will schedule a specific meeting together -- to test whether each venture still seems to make sense. Can we bring together all the keys to success? Can we answer this question yet?

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### Research -- Process Flow

- o Phase 1: Initial six-page summary -- of product, the market, customer needs, competition, production and sales / marketing.
- o Phase 2: Research on the revenue model and business strategy.
- o Sanity check

You now should be in a position to try your hand at a draft Executive Summary, unless the Sanity Check shows that your business idea probably is doomed. Next, do more research in depth into all the above areas, and add research into the following:

- People plan: recruiting, timing, costs, and gaps
- Legal, accounting, tax, regulations
- Financial projections
- Comparable companies research, equity valuation

Entrepreneurs must tailor much of the research and analysis to the particular venture opportunity. Below are listed some general areas for independent research that may apply to many situations. This list is not inclusive.

### Macro Environment (Recommended databases: EIU CountryData, World Development Indicators, Political Risk Yearbook)

- o **Economic outlook** -- real growth rates, inflation outlook, interest rates, and currency.
- o **Political climate** -- government stability; regulations, legal and tax outlook.
- o **Demographics** -- population composition and characteristics, outlook for change.
- o Separate macroeconomics (outlook and assumptions) from analysis of specific target.

### Industry Research (Recommended databases: Thomson Research, Hoover's, S&P NetAdvantage, Bloomberg, ABI/Inform, Business Source Elite)

- o **Total market size** and growth -- annual unit volume, money value, upside potential.
- o **Industry characteristics** -- stage of maturity, cyclical, capital intensity, people intensity, operating leverage, financial leverage, profit margins, ROI, many or few competitors, market-driven or product driven, type of customers.
- o If customers themselves are in another industry or segment, their characteristics.
- o **Segmentation** -- (if any) by key market differences within the industry.
- o **Critical success factors** -- size, R&D, products, people, pricing, marketing, and data.
- o **Competition** -- dominant players, substitute products, barriers to entry.
- o **Distribution** -- methods, channels, variety, sales skill and experience levels required
- o **Technology** -- importance, stable or changing, high or low tech, cost, risk, complexity.
- o **Regulation** -- nature and importance of government controls, laws, taxes, etc.
- o **Personnel** -- employee types and wage levels, diversity, unions, and incentives.

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## Macro Evaluation -- Economic & Industry Analysis

### Industry Information

- o Is the company's business similar to that of other companies -- part of a clear industry category or industry segment? If so, then which companies are industry participants? (Determine their exact names, locations, ticker symbols. (*Recommended databases:* Bloomberg, OneSource; NAICS website and [www.census.gov](http://www.census.gov); *recommended books on ratios and key industry norms:* Industry Norms and Key Business Ratios HG4027 I55; RMA Annual Statement Studies HF5681 B2 R63; Industry Research Using the Economic Census HC101 B594).
  - o If some of these companies are publicly traded, there will be *large* amounts of data available about the industry in their publicly-disclosed documents, such as their annual reports, **SEC** 10-K's, 8-K's, 8-Q's, S-1's. One can retrieve these on the web [www.sec.gov](http://www.sec.gov) using the EDGAR browser. (*Other recommended databases:* Thomson Research, S&PNetAdvantage, Bloomberg, Hoover's.)
  - o Securities analysts employed by national or regional brokerage houses will "follow" public companies. They publish industry research and opinion from time to time, as part of their reports on companies in the industry. (*Recommended databases:* OneSource, Business & Company Resource Center, Reuters Research on Demand, Wall Street Transcript.)
  - o General business research firms, such as **Standard & Poor's**, **Moody's**, **Fitch**, **The Economist**, **Value Line**, and **D&B** publish special industry studies. (*For example print resources:* S&P Stock Reports HG4905 S452; Mergent Industry Review HG4027 M66; Value Line HG4501 V263)
  - o Whether or not companies in the industry are publicly traded, a search of news and other periodic publications (plus general business reference books) often will yield valuable industry information and insights. (*Recommended databases:* LexisNexis, ABI/Inform, Business Source Premier, Factiva).
  - o Most industries have trade or professional associations. Many have web sites.
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### Competitors (Recommended: LexisNexis, Bloomberg, OneSource, Compustat.)

- **Scale of competition** -- local, regional, national, international, exports/imports.
- **Competitor strategies** and tactics, relative success, strengths and weaknesses.
- **Dominant/niche players** -- market leader analysis -- comparative advantages.
- **Image of competitors** (especially market leaders) -- market share trends, ads.
- **Substitute products** or services, basis for competition among substitute products.
- **Barriers to entry** -- patents, capital, distribution channels, regulatory, EPA, other.
- **Product differentiation** -- price, quality, function, features, financing, service.
- **Economies of scale** -- cost advantages, sustainable source of advantages.
- **Service** -- importance, responsiveness, personal contact, warranties, attitudes.
- **Labor relationships** -- non issue? Strikes, motivational factors, management pay.
- **Competitor management** -- napping or alert, likely response to new competition?
- If any competitors are public companies, **detailed financial statements**, history.
- **Financial resources** -- credit rating, access to public capital markets, market cap.
- **Litigation** -- pending and potential, nature, importance.
- **Recent developments** -- among competitors.

### Target Company Analysis

- o **What is unique** (if anything) about our company's business or its strategy?
  - Comparative advantages -- strengths, nature, importance
  - Critical success factors vis-à-vis the competition: product, marketing, etc.
  - Comparative disadvantages -- weaknesses, nature, importance
- o **What could go wrong** with the business plan, how likely are these downsides?
- o **What could go better** than plan, how likely are these upsides?<sup>1</sup>

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### o **Compare our financial projections to those of comparable public companies.**

- o In what ways are the financial statements similar and different?

- |                                |                                 |
|--------------------------------|---------------------------------|
| ◆ Growth rate of revenues      | ◆ Tax rate                      |
| ◆ Size/market share (revenues) | ◆ Working capital requirements  |
| ◆ Gross margin                 | ◆ Fixed assets/sales, CapEx     |
| ◆ Operating margin             | ◆ Capital structure/debt levels |

- o Can one explain why our company is similar / different?
  - o Do these explanations feel reasonable? What could turn out differently?
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## Select Information Sources

### Industry Directories (print)

Standard & Poor's Industry Surveys HC106.6 S735  
 Panorama of EU Industry HC241.2 P313  
 Ward's Directory of ... HG4057 A272  
 D&B Million Dollar Directory HC102 D85  
 Plunkett's InfoTech Industry Almanac HC79 I55 P584

### News (accessible via 'Social Science Databases')

LexisNexis	Bloomberg
Factiva (full-text WSJ)	New York Times Online
OneSource	iCONN Newsstand

### Databases (accessible via 'Social Science Databases'(except Bloomberg))

Thomson Research	Hoover's
S&P NetAdvantage	Reference USSA
ISI Emerging Markets	Business Insights
World Consumer Markets	World Marketing Data and Statistics
Mintel	OneSource
Business & Company Resource Center	
Reuters Research on Demand (formerly Multex)	
Business Source Premier	ABI/Inform
EIU CountryData	World Development Indicators
Stat-USA	SourceOECD
LexisNexis	Factiva
Bloomberg [stand-alone workstation in the Social Science Library]	

### Analysts Covering Companies

Nelson Information Directory of Investment Research HG4509 N45  
 Bloomberg -- dates of recent analysts reports  
 OneSource  
 Reuters Research on Demand  
 Financial Projections -- **First Call, E-Trade, Bloomberg, Yahoo**

### World Wide Web

News

Company profiles (**E-Trade**)

### SEC

(Edgar) -- 10-K, 8-K, S-1, 8-Q

### Financing Activities of Public Companies

IPO Reporter (indexed in many databases; search in Orbis)  
 Investment Dealers Digest (indexed in many databases; search in Orbis)  
 Thomson Research  
 Security Data Company -- "Corporate New Issues" database (download into Excel)

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<sup>1</sup> Most people tend to underestimate -- greatly -- the range of outcomes.

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**Public Marketplace Periodicals**

Red Herring (indexed in many databases; search Orbis)

Investment Dealers Digest

IPO Reporter

**Venture Capital Industry**

Corporate Finance Sourcebook HG4057 A21 C67

Pratt's Guide to Venture Capital Sources HG65 R8

Galante's Venture Capital and Private Equity Directory

HG4961 V36

There are a number of journals about venture capital. Search Orbis for **subject**

**headings: venture capital periodicals** to retrieve a list of titles.

National Venture Capital Association --- Membership Directory

**Public Companies**

Annual reports

Head of Investor Relations

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## Industry Averages

Steps to locate Industry averages using OneSource (Business Browser).

- 1) Log into OneSource.
- 2) Click on “**Industry**”
- 3) Go to the right hand column and select an industry. (The industry selection will be very general at this point.)
- 4) You now will see a more detailed list on the left side of the screen. **IGNORE THIS LIST**. Go to the top right hand corner of this screen and select “**Industry Norms.**”
- 5) Locate the industry you want.
- 6) Select the sales range / size company you want.

You now have your industry averages. This is a very **powerful resource** for comparing your target company against other similar companies. Try it!

Try **Yahoo.com** → “Business and Economy” -- then go to “Finance and Investment.” Then “Yahoo Finance,” click on “Stock Research.” Then “Sector and Industry Analysis.”

### Quick Corporate Snapshots!

Multiple overviews of publicly traded companies are a click away! While there are many sources of free information, this article highlights the four major web accessible company resources that Yale pays for. Each of these vendors presents a one page jumping off point for company information. Please remember that these are complementary goods, if you want to be well-informed you need to use them all.

#### OneSource (Business Browser)

Click "Company" and type in your company name. OneSource provides instant access to news stories and financial information. It's the most easily customizable of these four products and the only one that **contains brokerage house reports**.

#### Thomson Research

Mainly data from financial reports filed with the SEC. Choose between Filings, Spreadsheet Financials, Overview Reports, or Price & Earnings Data. Use the left hand 'Quick Company Search'.

#### Hoover's

Search or browse by company name.

**Good Macro Research source:** [http://www.som.yale.edu/faculty/pks4/sub\\_econ.htm](http://www.som.yale.edu/faculty/pks4/sub_econ.htm) (last updated January 2004).

**QUICK HELP:** [SOM Library Page](#) (maintained by the School of Management Librarian Judy Carnes; [Ask Handsome Dan](#) (a database of frequently asked business questions).

**MORE HELP:** Contact **Judy Carnes** [Judith.carnes@yale.edu](mailto:Judith.carnes@yale.edu) or **Hella Heydorn** [hella.heydorn@yale.edu](mailto:hella.heydorn@yale.edu) or call Social Science Reference: 432-3301

### Y50K Entrepreneurship Competition: Library resources<sup>2</sup>

#### **Company Information and Consumer Data**

**Bloomberg** (Location: Social Science Library and SOM room B66) The Bloomberg provides delayed exchange feeds from the world's exchanges, currency feeds from top bank trading floors, over a dozen different newswires, and descriptive information, research and financial statistics on over 52,000 companies worldwide.

[Business & Company Resource Center](#): Coverage includes business journals, news articles and press releases, corporate chronologies and their histories, **First Call** → **consensus estimates** plus selected investment reports.

[OneSource](#) (Business Browser) U.S. Business Browser delivers company and industry information and analysis on hundreds of industries and thousands of public and private companies.

[Thomson Research](#) is the primary source for documents on companies traded on the major U.S. stock exchange.

[Hoover's](#): Yale's subscription to Hoover's is at the 'Pro Tools' level.

[ISI Emerging Markets](#) delivers news, company and financial data direct from more than 25 emerging markets throughout Asia, Latin America and Central and in Eastern Europe. ISI Emerging Markets gives emerging market specialists worldwide one-stop Internet access to mission-critical information straight from the local markets.

[Reference USA](#) is an online database that provides information on over ten million US businesses. One can search companies by name, location, type of business, business size, or any combination of these features.

[World Consumer Markets](#) contains volume and value market size data for over 230 consumer products across 55 countries worldwide.

[World Marketing Data and Statistics](#) provides detailed forecast data for the period 1995 to 2010 in 54 countries. It maps out global changes for the next 15 years, illustrated by a large range of social, demographic and economic forecasts.

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**U.S. and International News**

[LexisNexis Academic Universe](#) is a full-text news and information service that provides access to newspapers, magazines, transcripts, business and legal information and much more.

[Factiva](#) contains more than 6,000 publications and more than 80 million articles, including newspapers, trade journals, transcripts and newswires. It is the exclusive archive of [The Wall Street Journal](#).

**Journal Articles and Investment/Market Research Reports****Investment/Market Research Report**

[OneSource](#) (Business Browser) delivers company and industry information and analysis on hundreds of industries and thousands of public and private companies. Includes selected investment reports from Investext.

[Business & Company Resource Center](#) (via iCONN): Coverage includes business journals, news and press releases, corporate chronologies and histories, **First Call consensus estimates** plus selected investment reports.

[Reuters Research on Demand](#) (formerly Multex) includes Broker Research, Morning Notes and Independent Reports—Research from over 800 of the world's leading brokerage firms, investment banks and market research providers. More than 3.3 million full-text reports covering over 28,000 companies, spanning 100 countries and 23 languages.

[Wall Street Transcript](#) "The purpose of The Wall Street Transcript is to help investors make better investment decisions when choosing stocks and sectors. We interview Wall Street professionals and corporate leaders, which help us bring the views of stock market insiders to our readers."

[Business Source Premier](#) is a comprehensive, business periodical database that includes scholarly journals and business periodicals covering topics such as management, economics, finance, and accounting. Click on Company Profiles to retrieve Datamonitor reports.

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**Statistical Sources: U.S. and Worldwide**

[STAT-USA](#) is a collection of databases by the U.S. Department of Commerce. It includes the National Trade Data Bank with market research, export opportunities, reports on demographic, political and socio-economic conditions for hundreds of countries...

[LexisNexis Statistical](#) is a comprehensive index to statistical publications of the United States Federal government, international intergovernmental organizations, state and local governments, and nongovernmental organizations.

**Paper Resources:** (for further sources check [Orbis](#), Yale Libraries' online catalog.)

**Financial Ratios**

**ALMANAC OF BUSINESS AND INDUSTRIAL FINANCIAL RATIOS** SSL, Reference HF5681 R25 +A44 (LC) Provides financial ratios for companies in various asset ranges by SIC code. Data reported are from aggregate numbers from IRS records.

**INDUSTRY NORMS AND KEY BUSINESS RATIOS** SSL Reference HG4027 +155 (LC) Arranged by SIC code, this work includes financial data and important ratios from an aggregate number of establishments within an industry. Examination of this information establishes present and future norms from which a venture's performance can be judged.

**RMA ANNUAL STATEMENT STUDIES**, SSL Reference HF5681 B2 R63 (LC) Contains composite financial data on manufacturing, wholesaling, retailing, service, and contracting lines of business. Arranged by SIC code, this work makes it possible to compare one company's performance relative to other companies in the same line of business.

**ANALYSTS HANDBOOK** SSL Reference HG4519 +S772 (LC) Statistics on the sales, operating profit, profit margin, depreciation, taxes, earnings, dividends price P/E ratio, dividends yields, book value, working capital, and capital expenditures of about 85 industries. Composite per share data is provided by industry from 1947 to the present.

**MERGENT Industry Review** SSL Reference HG4027 M66.

**STANDARD & POOR'S INDUSTRY SURVEYS**, SSL Reference HC106.6.S74(LC) For each industry covered, provides sales, operating income, profit margin, depreciation, taxes, earnings, dividend yielded, book value, working capital and expenditures.

**VALUE LINE INVESTMENT SURVEY**, SSL, 2-Hour Reserve HG4050 V325 (LC) tracks current performance of firms and industries. Historical financial data are available, along with analyst discussion and recommendations.

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