

New Technologies and Future Markets
BBUS 476
Project Description
Spring 2009

Prelude

The major task of this course is the team project. This is not the type of project that can be successfully delivered in three crammed weeks. This is your chance to impress some outside professionals.

Early Tasks

1. Form your team
2. Develop Team Contract and Peer Appraisal form
3. Define your project topic, group membership, and meet with Instructor for approval.
4. Immerse yourself in the relevant business and technological history of your chosen sector.
5. Begin to identify experts for expert interviews. You are required to interview at least 5 experts. **No less.**

Project Mission

You are a project team charged with creating a suite of future scenarios for your chosen industry sector. Along the way, you must find the key market and technology trends.

Written Project Outline

1. 1 Page Executive Summary
This is the first section of your written report and is given to the instructor and to each juror at least two days prior to your presentation.
2. Description of Methods Used
This is a simple summary, no more than 1 page long, of the methods used in your data collection and analysis.
3. Main Body of Report
This is the report data and analysis. This can be done in a variety of ways, and can be split into more than one section. This section basically summarizes the current field and sets the stage for your forecast. It should include the following:
 - Project Scope
 - A summary of the current and future market size (be able to justify it)
 - Key and Bleeding Edge Technologies
 - Key Companies
 - Complementors & Potential Outside Competitors
 - Key Market and Technology Drivers/Trends

You may also wish to include the following information:

- Financing of Innovation (Key Venture Capitalists or Companies)
 - Government & Political Factors
4. Forecast
 - Based upon the preceding section, a description of the immediate future.
 - Scenario Analysis into the Uncertain Future
 5. Appendix
 - Raw Data
 - Interview Summaries
 - Names, Description, and contact information of your interviewed experts (at least 5)

Typical Methods Employed

1. Expert Judgment
 - Expert Interviews
 - Business Literature Analysis
2. Trend Analysis
 - Trend extrapolation
 - Technology substitution
 - Precursor Trends (Curve Matching)
 - Technology Monitoring
 - User Created Databases
3. Theories & Models
 - S-Curves & Inflection Points
 - A.D. Little's model
 - Scientific & Technology, Patent Literature Analysis
4. Market Research Data
 - Primary Research
 - Secondary Research
 - Market Reports
 - Interview Users
 - Competitor / Technology Comparison Analyses
5. Intrapreneurial Analysis

Presentation

Your team will make a presentation before the class and a jury of experts. The entire duration is about 45 minutes, with no more than 21 minutes allowed for your team's presentation. The rest of the time is devoted to answering questions from the panel and the class. The panel will likely be a mix of business management, scientists, former students, and academicians.

Instructor Notes

These are the Instructor's thoughts regarding what makes a good project paper or presentation. You are persuading the instructor and the jury that your conclusions are valid. You're telling a smooth story from beginning to end, building a case for your drivers, trends, and scenarios.

A Good Executive Summary Contains

1. Quick Definition or Description of the Product / Technology
2. Project Scope
3. Motivation
What makes this an interesting topic? You're providing the hook. You may wish to tease us with an awesome potential "Killer App". You may also quickly frame who this is a disruptive innovation. In some cases, your technology is so new that it isn't remotely close to a killer app. You might state that it's a "not ready for prime time technology", but that it potentially provides some incredible products.
4. Very Basic Market Characteristics
This may include last year's sales, analyst projections about revenues or future profits. This establishes where we are.
5. Basic Statements about the Future
You don't need to give it away. Just make a couple sentences or a paragraph at most.

Methods Section

This doesn't have to be very long, and in fact, I don't recall any of the papers having a methods section over 2 pages. The really good methods section tells how the team went about its research.

Where were your main sources? Who did you ask? Did you use a questionnaire? Did you get a second visit with certain experts?

How did your view on the industry, or the nature of the project, change as you visited the experts?

Lastly, what analysis methods were included in the paper? What comparisons were performed?

One quick note: I've concluded that most papers should not organize itself around Andy's 6-forces model. While it's a good framework for thinking in your head, it's an awkward way to organize your paper. It's tempting to create 6 subsections, each representing a different force. In reality, it just doesn't seem to work. I think it does work to create a *summary table* about how the 6-forces apply to your project area. It just rarely works for the entire main body to be organized in this manner.

Comments about Style

Almost every written paper, even the good ones, would have been improved by the use of comparison tables. It could be a comparison of companies, or perhaps a comparison of various technologies. It's a way to summarize lots of information into a smaller area, but moreover it helps to draw conclusions or trends in the data.

I accept almost any citation style as long your paper appropriately sources your information. *Almost* is the important word. I read through a few butt-ugly citation styles. Choose one so that the reader can easily find the source in your reference section.

Today's Missing Information

Many of the jurors have questions regarding innovation financing. Where will the money come to drive the industry? Are the profits and cash flow large enough from sales? Will it require the capital markets or other sources?

Sometimes the answer is obvious. Most of the time it isn't. For example, nanotechnology products currently aren't reaping any huge revenues. Where's the money coming from to start and sustain innovation in this arena?

Silly Trends and Drivers

Almost every project team is tempted to list "Consumer Acceptance or Market Acceptance" as an industry driver. Well, "duh". If consumers purchase a product, of course it drives an industry. This driver is so generic that it's useless. It tells me nothing. It's a stupid buzzword.

You should list issues or trends that underlie such acceptance. For example, "decreasing error rate" is an important issue for speech recognition, and it certainly is a huge factor in increasing "consumer acceptance".

The same could be said for "Penetrating New Market Niches". It's better to specifically list these important niches. If they're all too small to make a difference in the industry, then it's probably not important enough to make significant mention.