

IPRO 312 - Comparative Industrial Operations Analysis

Problem

In our competitive and entrepreneurial economy, start-up companies emerge every day with the hope of creating a niche market in which to offer a product that they believe is either an improved version of an already existing product or an innovation that has not yet been marketed. Of all the hurdles that businesses must overcome, the manufacturing of the product can be the most costly and rigorous in dealing with regulation and liability. In order to make an informed decision, our solution was to investigate the problems faced in introducing a product in the pharmaceutical (with and without FDA approval), food, and cosmetic industries and compare the results.

Goals and Tasks

- Identify entrance barriers to industries (cost, patents, trade, monopolies)
- Determine regulatory bodies including authority and levels of enforcement
- Investigate manufacturing practices used
- Identify quality control, assurance problems, and possible solutions
- Develop a systematic method to compare industries

Organization

The team was divided into the four industries in which to investigate: FDA approved drugs, non-FDA approved, food/beverage, and cosmetics. The groups researched the issues and problems each of the four industry faces. The main topics of research included: regulatory governing bodies, enforcement (self or government), cost associated with industry, good manufacturing practices implemented, latest money saving/efficiency methods, and quality issues. As a team we also met with industry professionals and traveled on tours of manufacturing facilities to gain a greater understanding of their processes and configurations. At weekly meetings we gave status reports along with a midterm presentation of each team industrial findings. As we neared the completion of the project, we presented the final reports for each industry, discussed the findings, and formed new teams focusing on how to compile the information for the presentation, poster, and other deliverables.

Barriers/ Obstacles Encountered

- Uncooperative industries
- Communication constraints with limitations in weekly meetings and informal communication
- Drawing conclusions based on limited information and inferring industrial habits
- Comparing significantly different industries on a balanced scale
- Working within narrow timetable and significant amount of data

Accomplishments

- Met with significant industrial leaders and scheduled them to present to the team
- Toured Concept Laboratories, Goose Island Brewery and Vienna Beef
- Gathered extensive information on regulation, costs, manufacturing practices
- Established a formal way to compare industries

Future work

- Expand research to different manufacturing industries
- Gather more data on profit margins, industry revenues, and start-up costs
- Obtain precise quality control and assurance statistics from pharmaceutical companies
- Introduce cost saving, quality control ideas to industrial representatives and gain greater feedback

Faculty Advisor

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Student Team

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