Faculty Showcase ’07

Fiona Wilson
Deborah Marlino
School of Management

Goals

- Understanding and using complex data in decision making.
- Formulating complex strategic decisions and translating strategies into tactics.
- Managing a portfolio of products in a competitive industry environment.
- Functioning effectively in a managerial team under severe time and budget constraints.
- Understanding the key interactions of different functional players within an organization as they work together to design, produce and market successful products.

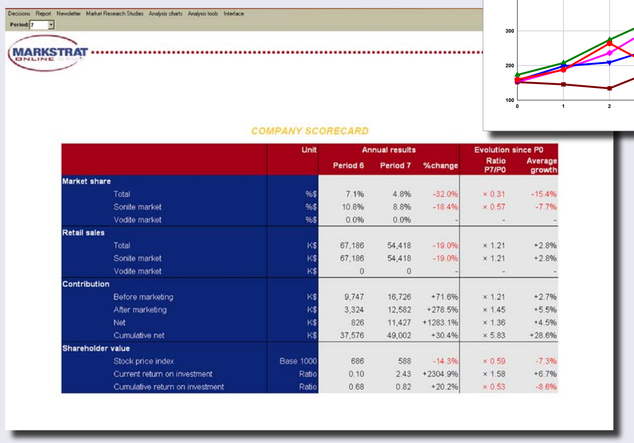
Sponsored by Academic Technology at Simmons College

Using a Dynamic Online Simulation for Integrative Learning

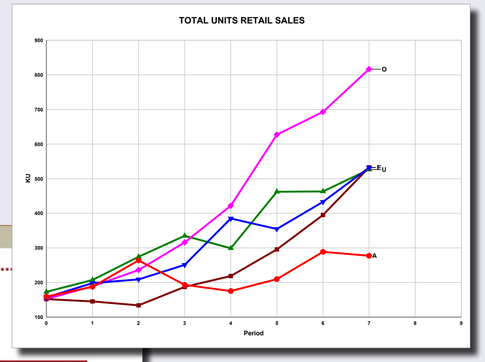
Project Overview

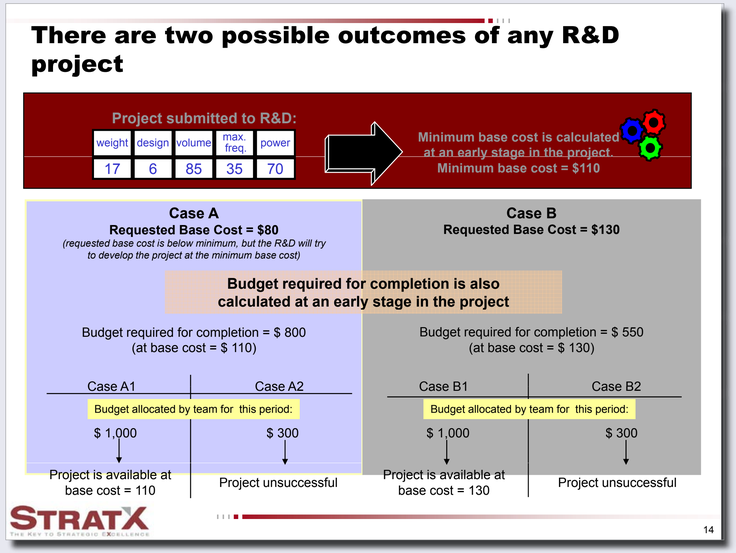
In our MBA course, “Strategic Decision Making,” we do not lecture, analyze cases, have guest speakers, or give tests. Instead, this course is designed around a dynamic online simulation (Markstrat3) of a hypothetical world in which companies compete with each other to design, produce and market products in two industries. Students are each assigned to a “company” team. Each company team starts out with the same strengths and weaknesses, and their success – or failure – depends on both their decisions and on decisions made by their competitors.

Company team decisions are entered into the simulation software online. We then run the simulation and re-open the site so that teams can download results. With this structure, the course can also be managed virtually. The simulation runs for up to 12 sessions, or “years,” and is best used in a compressed time format. The most important learning comes from managing a complex set of decisions using incomplete data in a team with a tight schedule, and understanding how to analyze the data in a way that produces successful financial results. Multiple sessions are necessary so that students have the opportunity to learn from the outcomes of decisions made in previous sessions. Some company teams embrace risk, while others are more conservative. Some turn out to be industry giants and others become niche players, but all find themselves totally engrossed in the task of managing their companies for success.



	Unit	Annual results Period 6	Period 7	%change	Evolution since P0 Ratio P7/P0	Average growth
Market share						
Total	%$	7.1%	4.8%	-32.0%	× 0.31	-15.4%
Sonite market	%$	10.8%	8.8%	-18.4%	× 0.57	-7.7%
Vodite market	%$	0.0%	0.0%	-	-	-
Retail sales						
Total	K$	67,186	54,418	-19.0%	× 1.21	+2.8%
Sonite market	K$	67,186	54,418	-19.0%	× 1.21	+2.8%
Vodite market	K$	0	0	-	-	-
Contribution						
Before marketing	K$	9,747	16,726	+71.6%	× 1.21	+2.7%
After marketing	K$	3,324	12,582	+278.5%	× 1.45	+5.5%
Net	K$	-826	11,427	+1283.1%	× 1.36	+4.5%
Cumulative net	K$	37,576	49,002	+30.4%	× 5.83	+28.6%
Shareholder value						
Stock price index	Base 1000	686	588	-14.3%	× 0.59	-7.3%
Current return on investment	Ratio	0.10	2.43	+2304.9%	× 1.58	+6.7%
Cumulative return on investment	Ratio	0.68	0.82	+20.2%	× 0.53	-8.6%





Applications Beyond

Using a dynamic simulation as the primary pedagogical tool for a team-based course has its advantages and disadvantages. There is a great deal of preparation required and the technology must operate flawlessly within an inflexible and often tight time frame. Also, there must be some peer accountability in teams so that all students are fully engaged. However, the level of realism and accountability brought to student learning goes beyond that of other commonly used pedagogical tools. Tests, case analyses and projects all are static; that is, students do not have to actively engage in understanding exactly what went right and what went wrong in order to continue the tasks required (although we might hope they would!) In addition, students become extremely involved in this hypothetical world and are very excited about seeing the results each period. Such simulations, especially those that are sufficiently complex and realistic, could be widely used across courses in all areas to further both actual learning and, more importantly, active engagement in learning.