

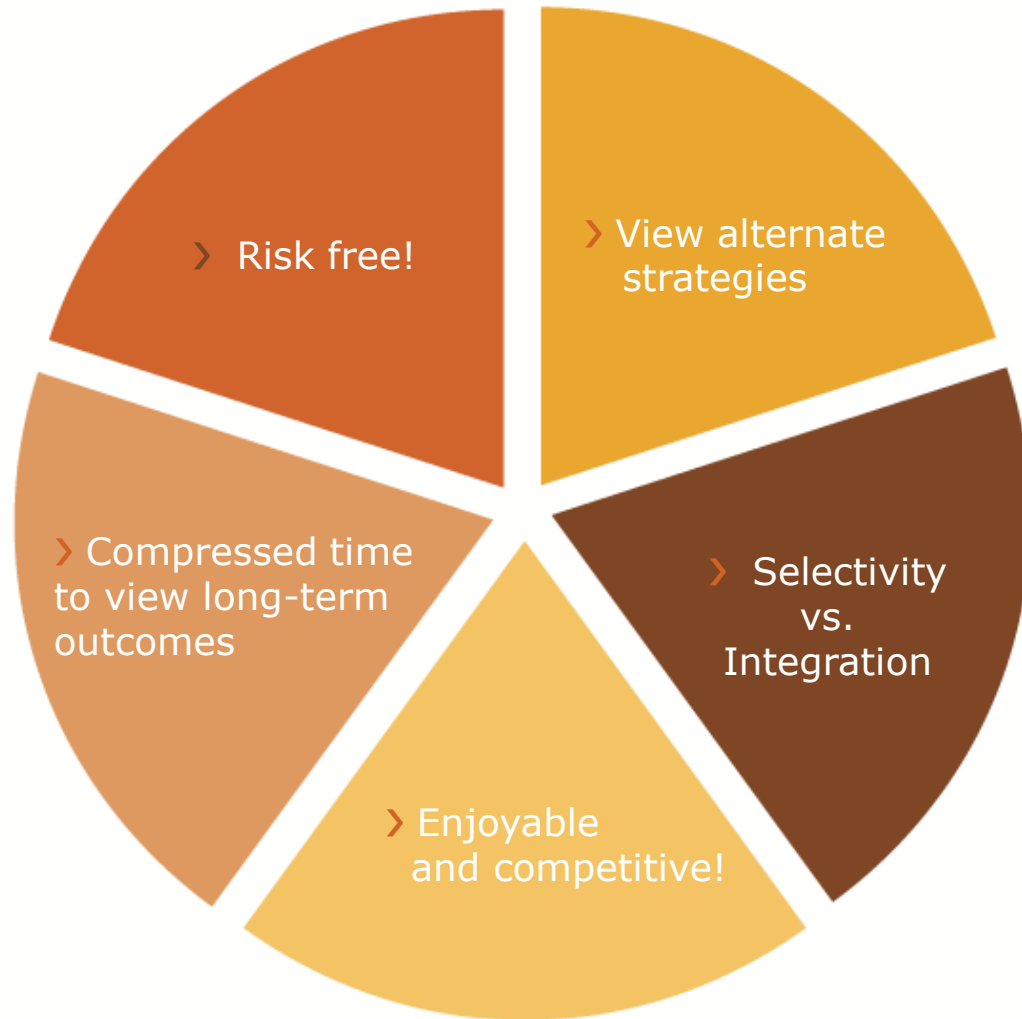
INTRODUCTION

An overview of the Capstone® simulation

SAUNDERS COLLEGE OF BUSINESS PROFESSOR LUXMORE

Class: MGMT560

WHY SIMULATE?



OBJECTIVES OF THE CAPSTONE[®] SIMULATION

- ▶ Demonstrate effectiveness of multi-discipline teams working together.
- ▶ Use strategic thinking.
- ▶ Take away practical skills in business management.
- ▶ Test your business acumen.
- ▶ Understand overall interaction and impact of various parts of a business on one another.
- ▶ Grow the awareness of competition.

A photograph of a wind farm in a rural landscape. Several large white wind turbines are visible against a bright, hazy sky. The foreground is a field of green grass and low-lying shrubs. A dirt road or path leads towards the turbines. The overall tone is warm and slightly desaturated.

INDUSTRY OVERVIEW

THE STORY: BACKGROUND ON YOUR COMPANY

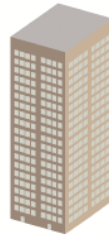
Started as a single corporation named *Sensors, Inc.* sold sensors as main product.
Corporation was shut down by FTC due to monopolistic operations

Sensors, Inc.



FTC required *Sensors, Inc.* to be broken up into separate companies:

Andrews



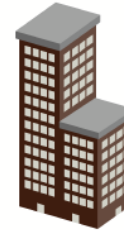
Baldwin



Chester



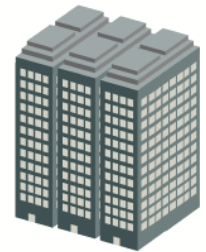
Digby



Erie



Ferris



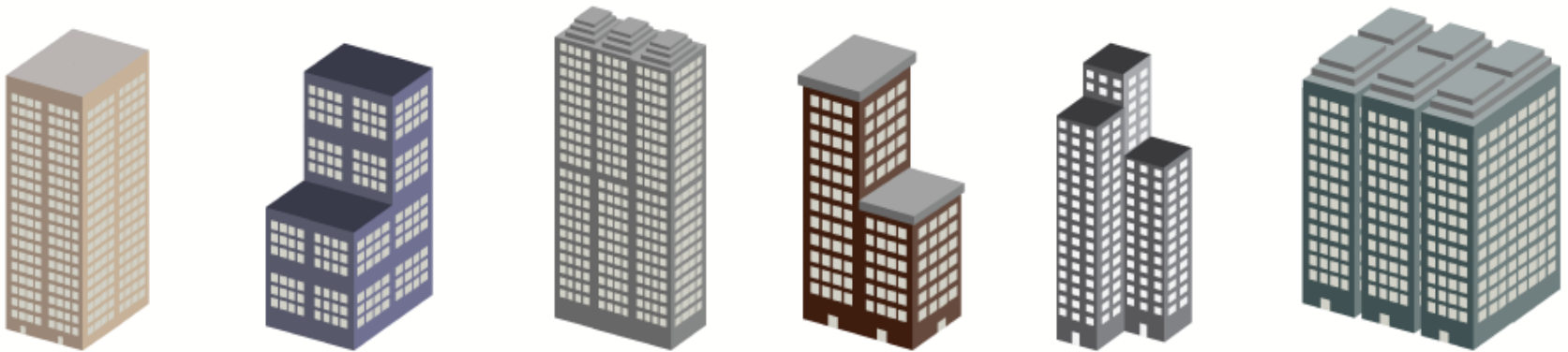
YOUR JOB

- Operate one of the companies and make it successful

THE START

When Sensor, Inc. breaks up, each of the new companies start off with the following scenario:

- ▶ \$100 million in Sales
- ▶ 5 Product Lines
- ▶ 5 Market Segments
- ▶ Closed Marketplace



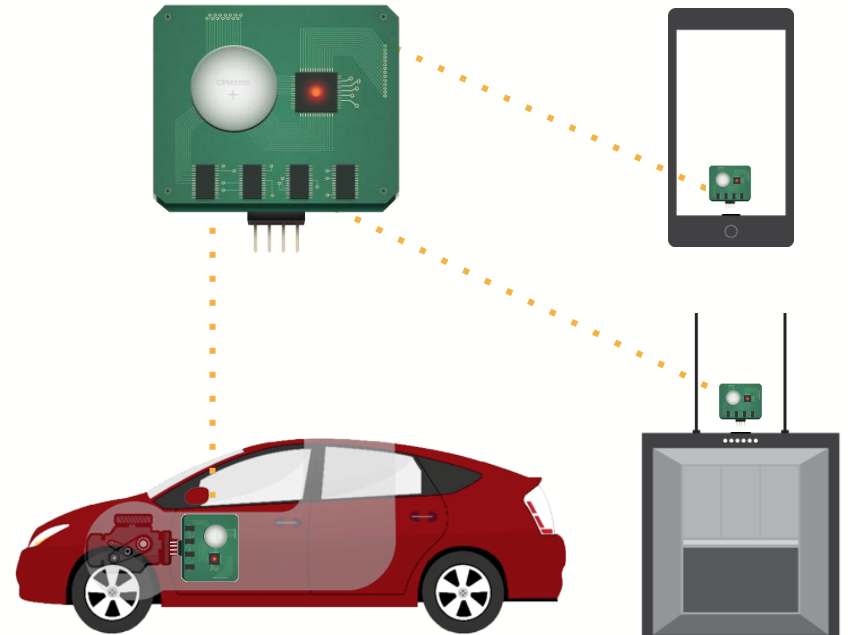
SENSORS: AN OVERVIEW OF YOUR COMPANY'S PRODUCT

- ▶ Customers (OEMs) need sensors for their products to function.
- ▶ Used for diverse applications

Customer demands vary between the five segments

Five market segments:

- ▶ Low End
- ▶ Traditional
- ▶ High End
- ▶ Performance
- ▶ Size



THE MARKETPLACE: A LOOK INTO THE SEGMENTS

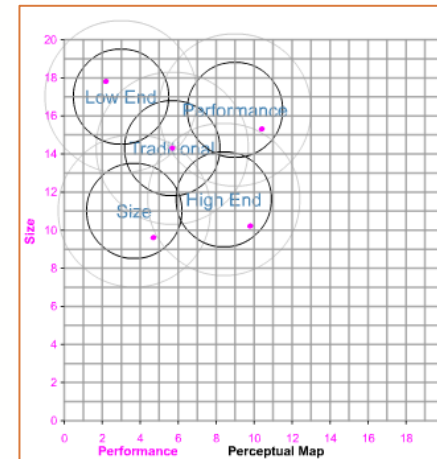
- ▶ Perceptual map used to track changing consumer demands in size and performance.
- ▶ Each year, consumers will expect faster (higher performance) and smaller products (smaller size)
 - This causes the segment circles to drift to the lower right constantly
- ▶ Market segments continue to diverge over time.

Note the drift towards the lower right (expectations of faster and smaller products)

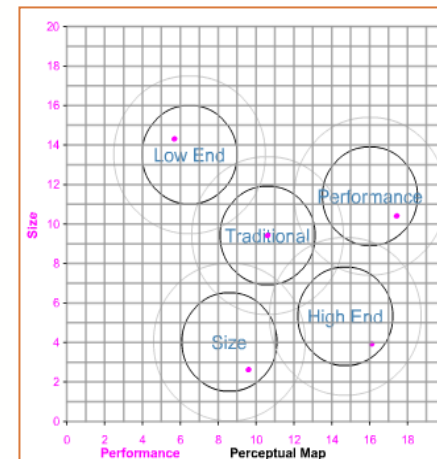
Also note the divergence of the segments.

Consumer segment expectations

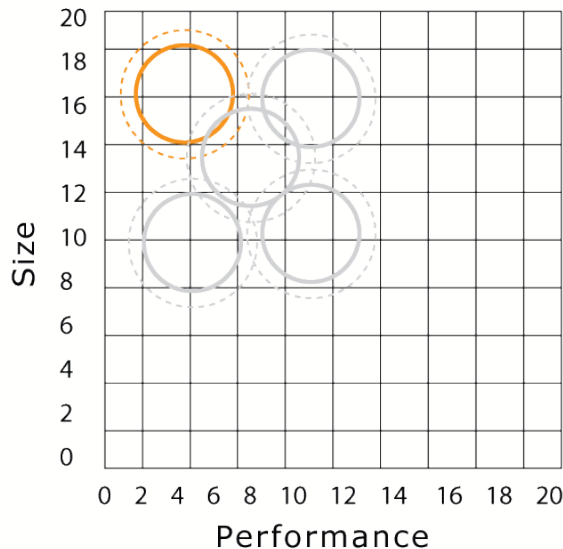
ROUND 1



ROUND 8



LOW END CONSUMER CHARACTERISTICS



POSITIONING

Prefer less cutting edge products
(Bigger Size & Low Performance)

"The technology doesn't have to be cutting edge."

PRICE

Price sensitive. Prefer prices at lowest possible.

"I want to spend as little money as possible!"

RELIABILITY

Ideal MTBF: 12000 – 17000

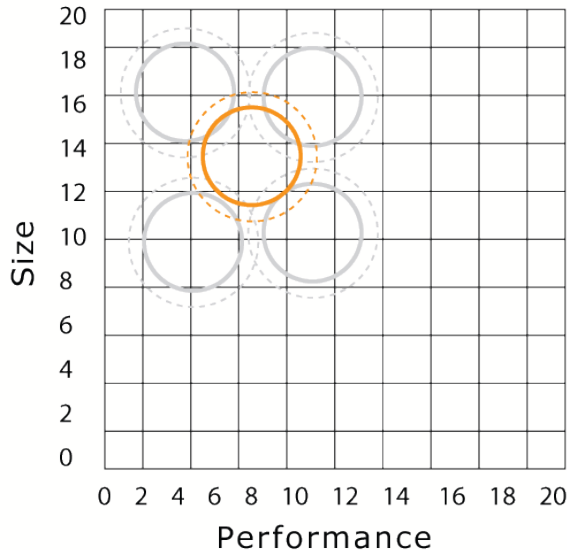
**"They have to be moderately reliable...
but not enough to drive up the price!"**

AGE

Ideal Age: 7 years

**"I want them to have been around for a while...
no beta testing!"**

TRADITIONAL CONSUMER CHARACTERISTICS



PRICE

Price sensitive, but willing to spend more than Low End consumers

"I want these sensors to be moderately cheap."

RELIABILITY

Ideal MTBF: 14000 – 19000

"They have to be fairly reliable...but not enough to drive up the price!"

POSITIONING

"Average" Performance and Size

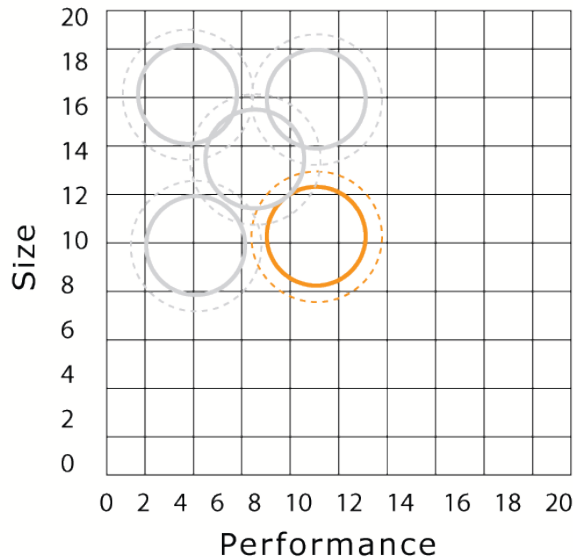
"I want average sensors."

AGE

Ideal Age: 2 years

"I want them to have been around for a couple years...no beta testing!"

HIGH END CONSUMER CHARACTERISTICS



PRICE

Not price sensitive, willing to pay higher prices

"Price is not an issue. I want the best sensors in the market!"

RELIABILITY

Ideal MTBF: 20000 – 25000

"We need a very reliable package."

AGE

Ideal Age: 0 years

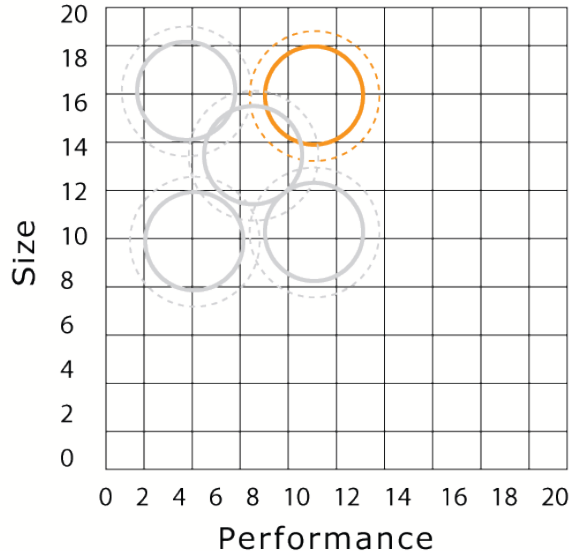
"I want the newest sensors you have!"

POSITIONING

High performance and small size

"Only the most cutting edge products will satisfy me!"

PERFORMANCE CONSUMER CHARACTERISTICS



PRICE

Not price sensitive, willing to pay moderately higher prices

"I am willing to pay for what I need"

RELIABILITY

Ideal MTBF: 22000 – 27000

"Reliability is very important and must be high."

POSITIONING

High performance and small size

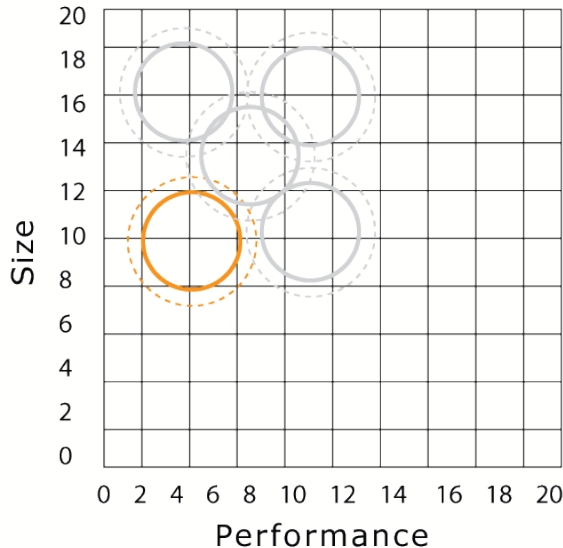
"I want the highest Performance available!"

AGE

Ideal Age: 1 year

"I prefer new technology!"

SIZE CONSUMER CHARACTERISTICS



POSITIONING

Average Performance but maximum miniaturization

"Now that's small!"

PRICE

Not price sensitive, willing to pay moderately higher prices

"I am willing to pay for what I need"

RELIABILITY

Ideal MTBF: 16000 – 21000

"We want pretty reliable sensors."

AGE

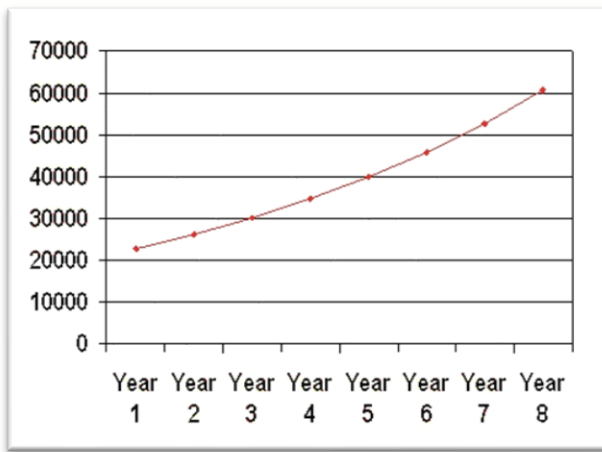
Ideal Age: 1.5 year

"I prefer fairly new technology!"

SEGMENT GROWTH

According to a Market Analyst, there will be continuous growth in the sensor market.

Sensor market



"I see the entire market growing at around 14% or 15% per year. The high tech market alone will be growing at a whopping 20%."

YOUR GOAL

- ▶ Prepare your company's products to meet the needs of the growing market.



THE DECISION MAKING PROCESS

DECISION AREAS

Students need to coordinate strategy and tactics across the following areas of their company:



R&D (Research & Development)



MARKETING



PRODUCTION



FINANCE

ADDITIONAL MODULES

- ▶ HR
- ▶ TQM (Total Quality Management)
- ▶ Labor Negotiations
- ▶ Advanced Marketing

R&D



- ▶ Ensure the perceived age of the product meets customer demands
- ▶ Build the quality and reliability (MTBF) of the products
- ▶ Invent new products to address the changing marketplace and take advantage of new opportunities
- ▶ Determine the specifications of the products to meet customer expectations



MARKETING



- ▶ Set the price of your products
- ▶ Build customer awareness through investing in promotion
- ▶ Establish a sales force and distribution channels
- ▶ Set the sales forecast for your products
- ▶ Set credit policies (A/R and A/P)



PRODUCTION



- ▶ Purchase machinery to automate them in your facilities
- ▶ Buy or sell capacity on your product lines
- ▶ Set production schedule
- ▶ Manage the majority of the company's fixed assets
- ▶ Staff your facility with workers



FINANCE



- ▶ Acquire capital to fund growth and operations
 - Issue stock
 - Short-term debt
 - Issue long-term bonds
- ▶ Issue dividends to your shareholders
- ▶ Balance your debt portfolio
- ▶ Manage your Proformas



PROFORMAS: A LOOK INTO THE FUTURE



- ▶ Proformas use decisions made in the current year to project company performance for the next year
- ▶ Analyzing them is critical for company success
- ▶ The following Proformas are available:
 - Balance Sheet
 - Income Statement
 - Cash Flow Statement
 - Financial Ratios



A blurred background image showing a person's hands writing in a red notebook on a desk. The person is wearing a light-colored shirt. The image is out of focus, emphasizing the text overlay.

SCORING METHODS

BALANCED SCORECARD

- ▶ Improving company financial picture in preparation for final debrief
- ▶ Point System
- ▶ Gauges company performance based on four perspectives:
 - The Customer
 - Internal Business Process
 - Learning and Growth
 - Financials
- ▶ In the simulation, a Proforma Balanced Scorecard is available to project results for the upcoming year.

Balanced Scorecard

[Industry Scoring](#)
[Balanced Scorecard](#)
[My Teams](#)

My Teams

Here are the possible and earned points that are scored on the decisions your team makes during a round. Clicking each score will display a breakdown of how it was calculated.

Team Name	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Recap	Total
Andrews	44	0	0	0	0	0	0	0	88	132
Baldwin	52	0	0	0	0	0	0	0	76	128
Chester	53	0	0	0	0	0	0	0	67	119
Digby	56	0	0	0	0	0	0	0	80	137
Erie	51	0	0	0	0	0	0	0	63	113
Ferris	56	0	0	0	0	0	0	0	71	128
Possible Points	82	89	89	100	100	100	100	100	240	1000

Balanced Scorecard Details

For more information on the scoring criteria, click that criteria below.

Team: Andrews

Round 1 Score / Points.

Financial			Internal Business Process		Customer		Learning and Growth	
Stock Price	6.7	/8	Contribution Margin	0.0	/5	Customer Buying Criteria	2.9	/5
Profits	3.0	/9	Plant Utilization	3.6	/5	Customer Awareness	2.8	/5
Leverage	2.0	/8	Days of Working Capital	0.0	/5	Customer Accessibility	0.0	/5
SubTotal	11.7	/25	Stock-out Costs	4.5	/5	Product Count	5.0	/5
			Inventory Carrying Costs	5.0	/5	SG&A Expense	5.0	/5
			SubTotal	13.1 / 25		SubTotal	15.7 / 25	

Daily standings:

Round 1: 21 percentile

Overall at the end of Round 1: 21 percentile

Daily standings are calculated at 3:00am ET.

Round 1 points: 43.8 of 82

SUCCESS MEASURES

- ▶ In the real world, companies have different goals. Using the same success measures, YOU get to choose the parameters on which your company is measured.
- ▶ Some of the Criteria that are used:
 - Cumulative Profits
 - Average Market Share
 - Average ROS (Return on Sales)
 - Average Asset Turnover
 - Average ROA (Return on Assets)
 - Average ROE (Return on Equity)
 - Ending Stock Price
 - Ending Market Cap
- ▶ Students or Professors choose the percentage weighting for each selection.

Success Measures

Industry Scoring

Success Measures

Weighted Relative

Relative Scores To Date for Industry F63831

Calculating Scores To Date (Relative)

1. The system determines a raw score for each category by dividing the team's score ("Team's Value") by the by the highest scoring team in that category ("Highest Value"). For example, if the "Team's Value" for Profit is \$5,000,000 and the "Highest Value" is \$10,000,000, the team receives a raw score of .5 (\$5,000,000 ÷ \$10,000,000 = 0.5).

2. Next, the system multiplies the raw score by the success measure entry. Continuing with the previous example, if the team's success measure ("Team Weighting") is 12.0, multiplying 12 by 0.5 will derive a "Score" of 6.

3. The scores for each category are added, and the resulting sum appears in the Total row.

Weight Method

The team's values are weighted even for each round.

Andrews

	Type	Team's Value	+ Highest Value	x Team Weighting	= Score
CumProfit	cumulative	\$ 5,511,572	\$ 5,579,561	12.0	11.9
Market Share	avg	19.19	19.19	12.0	12.0
Stock Price	ending	\$ 15.26	\$ 15.57	12.0	11.8
Market Cap	ending	\$ 35,991,985	\$ 35,991,985	16.0	16.0
ROE	avg	15.23	24.02	12.0	7.6
ROS	avg	5.75	7.05	12.0	9.8
ROA	avg	10.68	12.36	12.0	10.4
Assetturns	avg	1.86	1.86	12.0	12.0
Total					91.4

Baldwin

	Type	Team's Value	+ Highest Value	x Team Weighting	= Score
CumProfit	cumulative	\$ 4,801,640	\$ 5,579,561	12.0	9.9
Market Share	avg	17.59	19.19	12.0	11.0
Stock Price	ending	\$ 13.66	\$ 15.57	12.0	10.5
Market Cap	ending	\$ 28,368,465	\$ 35,991,985	16.0	12.6
ROE	avg	13.36	24.02	12.0	6.7
ROS	avg	4.38	7.05	12.0	7.5
ROA	avg	6.97	12.36	12.0	8.8
Assetturns	avg	1.59	1.86	12.0	10.3
Total					75.2

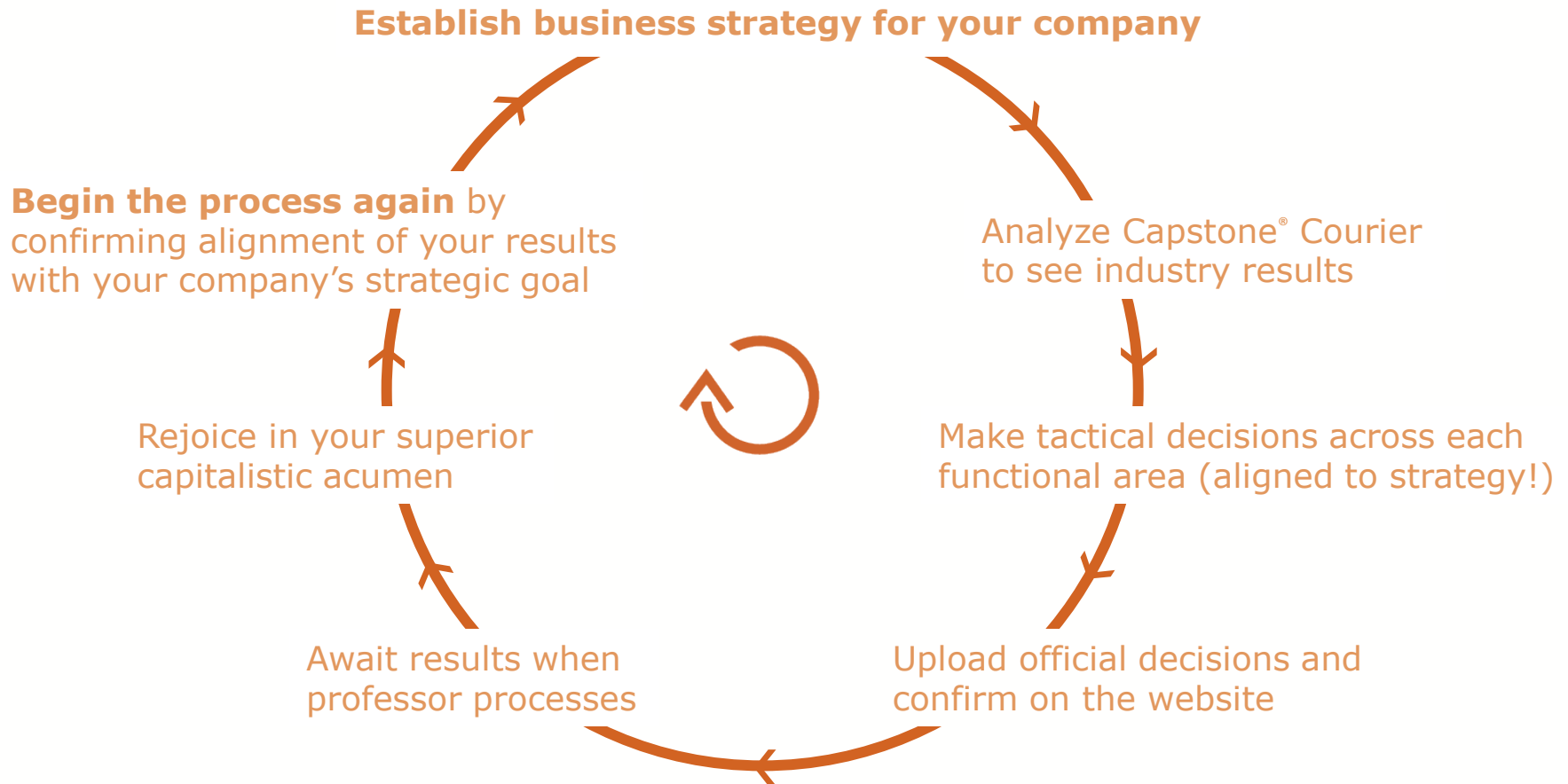
ANALYST REPORT

Evaluates your company in ten categories:

1. Margins
2. Profits
3. Emergency Loans
4. Working Capital
5. Market Share
6. Customer Satisfaction
7. Financial Structure
8. Wealth Creation
9. Forecasting
10. Productivity

Analyst Report														
Industry Scoring Analysis & Scoring Analyst Report														
Analyst Report														
The Analyst Report evaluates your company in ten categories of management performance. Categories are worth 100 points in the overall annual evaluation of 1,000 points.														
SimID	Co.	Rd	Margins	Profits	Emerg. Loans	Working Capital	Mkt Share	Fore-casting	Cust. Sat.	Prod-uctivity	Financial Structure	Wealth Creation	Total Points	Cumula. Points
F63831	Andrews	1											607	607
F63831	Baldwin	1											685	685
F63831	Chester	1											657	657
F63831	Digby	1											771	771
F63831	Erie	1											586	586
F63831	Ferris	1											754	754
Points: = 0, = 10, = 20, = 30, = 40, = 50, = 60, = 70, = 80, = 90, = 100														

THINGS TO DO ON AN ANNUAL BASIS



GOOD LUCK AND ENJOY!

HERE WHEN YOU NEED US

We're dedicated to your success. One of our client relationship consultants will be assigned to you to help you and your students. Contact us any time throughout the entire simulation process. We'll be glad to help.

Let's get started!

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