

We discussed how Excel can be used to conduct classroom simulations. Three different simulations were presented:

- Prisoners Dilemma.** Students learn about game theory and strategic decision making by taking a quiz in which their result depends on the choice of a randomly selected partner. Excel is used to randomly pair students as partners and then score their quizzes based on each partner's selection.

	Name	Grade	Choice	Partner	Partner's Choice
1	Adam	C	1	Frank	1
2	Bob	C	1	Gary	1
3	Cale	B	2	Helen	2
4	Don	F	2	Isabele	1
5	Elizabeth	B	2	Justine	2
6	Frank	C	1	Adam	1
7	Gary	C	1	Bob	1
8	Helen	B	2	Cale	2
9	Isabele	A	1	Don	2
10	Justine	B	2	Elizabeth	2
11	Kelly	F	2	Nick	1
12	Laura	F	2	Mary	1
13	Mary	A	1	Laura	2
14	Nick	A	1	Kelly	2

1.) Type your name

2.) For choice type 1 or 2

- IF you and your partner both choose 1, you each receive a C.
- IF you and your partner both choose 2, you each receive a B.
- IF you and your choose 1 and your partner chooses 2, you will receive an A and your partner an F.
- IF you and your choose 2 and your partner chooses 1, you will receive an F and your partner an A.

- Marketing Strategy.** Students compete for market share and larger profits by selecting their desired marketing mix. Excel is used to allow students to make strategic decisions on product, price, place, and promotion. Then based on the comparative decisions of each group, Excel is used to determine the market share and profit of each group.

Advertising	Group 1	Group 2	Group 3	Group 4	Sponsorships	Group 1	Group 2	Group 3	Group 4	Price	
Television	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sport A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Group 1	\$15.00
Newspaper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sport B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Group 2	\$45.00
Magazine	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sport C	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Group 3	\$32.99
Internet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Celebrity A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Group 4	\$86.00
Radio	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Celebrity B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Positioning Group 1 Low Quality Group 2 Medium Quality Group 3 Medium Quality Group 4 High Quality	
Outdoor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Celebrity C	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Direct Mail	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Event A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Event B	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Personal Selling					Event C	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Telemarketing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
Sales Promotion					Public Relations						
Premiums	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Media Savvy	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Promotional Products	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Brochures/Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Point-of-Purchase Displays	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Newsletters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Coupons	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Games, Contests, Sweepstakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
Samples	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							

Market Size: 100,000

ROUND 1

Market Share:

Profit:

Group 1		Group 2	
Total Revenue	\$791,161	Total Revenue	\$699,831
Price	\$15.00	Price	\$45.00
Sales	\$2,744	Sales	15,552
Breakeven Point (in units)	14,600	Breakeven Point (in units)	9,200
Market Share	53%	Market Share	16%
Promotional Mix	\$23,000	Promotional Mix	\$226,000
Total Fixed Costs	\$73,000	Total Fixed Costs	\$276,000
Variable Cost per Unit	\$10	Variable Cost per Unit	\$15
Total Variable Costs	\$527,440	Total Variable Costs	\$233,277
Total Cost	\$600,450	Total Cost	\$509,292
Profit	\$190,720	Profit	\$190,554

Group 3		Group 4	
Total Revenue	\$763,783	Total Revenue	\$735,490
Price	\$32.99	Price	\$86.00
Sales	23,152	Sales	8,552
Breakeven Point (in units)	12,563	Breakeven Point (in units)	5,667
Market Share	23%	Market Share	9%
Promotional Mix	\$176,000	Promotional Mix	\$324,000
Total Fixed Costs	\$226,000	Total Fixed Costs	\$374,000
Variable Cost per Unit	\$15	Variable Cost per Unit	\$20
Total Variable Costs	\$347,279	Total Variable Costs	\$171,044
Total Cost	\$573,294	Total Cost	\$545,064
Profit	\$190,504	Profit	\$190,446

- Market Structure.** Students take on the role of economic advisors for a struggling pharmaceutical company. Excel is used to demonstrate the microeconomic model used in analyzing monopoly and monopolistically competitive market structures. Students make different strategic decisions and can see in real time how the model adjusts.



Firm

Factory

Small

Raw Materials

Poor

Advertising

Billboard	<input type="checkbox"/>
Newspaper	<input type="checkbox"/>
Magazine	<input type="checkbox"/>
Radio	<input checked="" type="checkbox"/>
Internet	<input checked="" type="checkbox"/>
TV	<input checked="" type="checkbox"/>
Placement	<input type="checkbox"/>

Cost Structure:

Factory Cost : \$12,200

Advertising Cost : \$45,000

Total Fixed Cost : \$57,200

Raw Materials Cost : \$12,000

Labor Cost : \$769,167

Total Variable Cost : \$781,167

Total Cost : \$838,367

Quantity

12,000

Price

\$75

