

LEAD

## Saras Sarasvathy's Full Case Study and Questions

The following is a case study on the psychology of entrepreneurs conducted by Saras Sarasvathy, a professor at the University of Virginia's Darden School of Business. Subjects responded to questions that simulated the experience of launching a start-up.

By Inc. Staff

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### Introduction

In the following experiment, you will solve two decision problems. These problems arise in the context of building a new company for an imaginary product. A detailed description of the product follows this introduction.

Although the product is imaginary, it is technically feasible and financially viable. The data for the problems have been obtained through realistic market research—the kind of market research used in developing a real world business plan. So far, the entrepreneurs who participated in this study found the project

both interesting and feasible.

Before you start on the product description and the problems, I do need one act of creative imagination on your part. I request you to put yourself in the role of the lead entrepreneur in building this company—i.e., you have very little money of your own to start this company, and the experience you describe above.

### Description of the product:

You have created a computer game of entrepreneurship. You believe you can combine this game with some educational material and profiles of successful entrepreneurs to make an excellent teaching tool for entrepreneurship. Your inspiration for the product came from

several reports in the newspapers and magazines about increasing demand for entrepreneurship education; and the fact that a curriculum involving entrepreneurship even at the junior high or high school level induces students to learn not only business-related topics but math and science and communication skills, as well.

The game part of the product consists of a simulated environment for starting and running a company. There are separate sub-simulations of markets, competitors, regulators, macroeconomic factors and a random factor for "luck." The game has a sophisticated multi-media interface—for example, a 3D office where phones ring with messages from the market, a TV that will provide macroeconomic information when switched on, and simulated managerial staff with whom the player (CEO) can consult in making decisions. At the beginning of the game, the player can choose from a variety of businesses the type of business he/she wants to start (For example: manufacturing, personal services, software, etc.) and has to make decisions such as which market segment to sell to, how many people to hire, what type of financing to go for, etc. During the game, the player has to make production decisions, such as how much to produce, whether to build new warehouses or negotiate with trucking companies, etc.; marketing decisions, such as which channels of distribution to use, which media to advertise in, and so on; management decisions involving hiring, training, promoting, and firing of employees, and so on. There is an accounting subroutine that tracks and computes the implications of the various decisions for the bottom line. The simulation's responses to the player's decisions permit a range of possible final outcomes—from bankruptcy to a "hockey stick."

You have taken all possible precautions regarding intellectual property. The name of your company is *Entrepreneurship, Inc.* The name of the product is *Venturing*.

## **Problem 1: Identifying the market**

Before we look at some market research data, please answer the following questions, one at a time:

1. Who could be your potential customers for this product?
2. Who could be your potential competitors for this product?
3. What information would you seek about potential customers and competitors—list questions you would want answered.
4. How will you find out this information—what kind of market research would you do?
5. What do you think are the growth possibilities for this company?

## **Problem 2: Defining the market**

In this problem you have to make some marketing decisions.

Based on secondary market research (published sources, etc.), you estimate that there are three major segments who are interested in the product:

Segment Estimated total size

Segment	Estimated total size
Young adults between the ages of 15 and 25	20 Million
Adults over 25 who are curious about entrepreneurship	30 Million
Educators	200,000 institutions
The estimated dollar value of the instructional technology market is \$1.7 billion. The estimated dollar value of the interactive simulation game market is \$800 million. Both are expected to grow at a minimum rate of 20% p.a. for the next 5 years.	

The following are the results of the primary (direct) market research that you have completed.

***Survey #1: Internet users were allowed to download a scaled down version (Game stops after 15 minutes of playing) of the prototype and were asked to fill out a questionnaire.***

You get 600 hits per day.

300 of them actually download the product.

You have 500 filled out questionnaires so far.

Willing to pay (\$)	Young Adults (%)	Adults (%)	Educators (%)
50-100	45	26	52
100-150	32	38	30
150-200	15	22	16
200-250	8	9	2
250-300	0	5	0
Total	100	100	100

***Survey #2: The prototype was demonstrated at two Barnes & Noble and three Borders Bookstores in Pittsburgh.***

Willing to pay (\$)	Young Adults (%)	Adults (%)	Educators (%)
50-100	51	21	65
100-150	42	49	18
150-200	7	19	10
200-250	0	8	7
250-300	0	3	0
Total	100	100	100

***Survey #3: Focus Group of educators (high school and community college teachers and administrators)***

The educators who participated in the focus group find the product exciting and useful—but want several additions and modifications made before they would be willing to pay a price of over \$150 for it. As it is, they would be willing to pay \$50-80 and would demand a discount on that for site licenses or bulk orders.

Both at the bookstore demo and the focus group, participants are very positive and enthusiastic about the product. They provide you good feedback on specific features and also extend suggestions for improvement. But the educators are particularly keen on going

beyond the "game" aspect; they make it clear that much more development and support would be required in trying to market the product to them. They also indicate that there are non-profit foundations and other funding sources interested in entrepreneurship that might be willing to promote the product and fund its purchase by educational institutions.

Based on all your market research, you arrive at the following **cost estimates for marketing your product.**

Internet	\$20,000 upfront + \$500 per month thereafter
Retailers	\$500,000 to 1 M upfront and support services and follow-up thereafter
Mail order catalogs	Relatively cheap, but ads and demos could cost \$50,000 upfront
Direct selling to schools	Involves recruiting and training sales representatives, except locally

## Competition

None of the following four possible competitors combine a simulation game with substantial education materials. You are unique in this respect.

<i>Company</i>	<i>Product</i>	<i>Description</i>	<i>Price per unit</i>	<i>Sales (\$)</i>
Maxis	Sim City	Urban planning simulation	29.95	30 M
Microprose simulation	Civilization 50.00	Civilization building		20 M
Sierra On-Line	Caesar	City building simulation	59.95	18 M
Future Endeavors Treetop Books (New Co. < 1 yr. old)	Scholastic	CD-ROMs of Scholastic	n/a	1 M

The game companies are making a **net return of 25% on sales.**

At this point, please take your time and make the following decisions: (Please continue thinking aloud as you arrive at your decisions.)

Which market segment/segments will you sell your product to?

How will you price your product?

How will you sell to your selected market segment/segments?

Learn more at [effectuation.org](http://effectuation.org).

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