

ENTREPRENEURIAL OPPORTUNITIES; A SIMULATION DESIGNED TO TEACH ITS PLAYERS HOW TO EVALUATE ENTREPRENEURIAL OPPORTUNITIES

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ABSTRACT

This is a non-competitive simulation designed to teach its players how to evaluate entrepreneurial opportunities. The simulation creates a series of opportunities in which the player (or team of players) views an opportunity to join an inventor and form a high-tech start-up. The player evaluates an opportunity after receiving a substantial amount of both quantitative data as well as some qualitative data. During the first round the player describes the opportunity in a tweet of 180 characters. There after the player compares the current opportunity to the opportunity he or she just rejected opportunity in a tweet. These tweets are retained for further analysis.

The exercise continues until the player accepts an opportunity. Note that once the player rejects an opportunity, he or she may not go back and accept it later. And similarly once the player accepts an opportunity, he or she cannot search for better opportunities. This game is designed to teach the player how to compare entrepreneurial opportunities and how to select the best opportunity from a set of opportunities on the condition that once an opportunity is passed over, it cannot be retrieved and once an opportunity is selected, no more opportunities can be researched.

ENTREPRENEURIAL SEARCH FOR OPPORTUNITY

Israel Kirzner (1973, 1979) proposed a concept of entrepreneurial alertness that suggests that entrepreneurs carry on continuing struggles to exploit opportunity for personal gain. One of the initial suppositions of entrepreneurship is the search for opportunities (Hills 1995). In many entrepreneurial situations, the entrepreneur team contains not only the inventor of a new concept but a person or persons who bring managerial, marketing and/or financial expertise needed to develop successful market entry.

A BRIEF HISTORY OF ENTREPRENEURSHIP TEAMS

Schjoedt and Kraus (2009), established a literature-driven definition of Entrepreneurial Teams. Their research discovered that a significant number of new ventures are started by entrepreneurial teams. Research by (Birley and Stockley, 2000; Cooper and Bruno, 1977; Eisenhardt and Schoonhoven, 1990). shows a strong relationship between greater corporate success rates in team-created ventures. The advantage the team approach results from more human and social capital availability to deal with the uncertainties accompanying new venture creation. One reason for this superior performance is that an entrepreneurial team has more human and social capital at its disposal in dealing with the uncertainties and variations (Chowdhury, 2005; Lechler and Gemunden, 2003; West, 2007). Numerous studies of entrepreneurship have shown that a team structure exhibit greater growth in new ventures. (Amason *et al.*, 2006; Ensley and Pearce, 2001; Foo *et al.*, 2006). Team run entrepreneurial teams start a larger number of new ventures than single managed firms. (Aldrich *et al.* 2002; Kamm *et al.*, 1990; Ruef *et al.*, 2003; Watson *et al.*, 1995).

ENTREPRENEURIAL OPPORTUNITIES IS AN EXERCISE IN LEARNING

ENTREPRENEURIAL OPPORTUNITY is a single player, non-competitive simulation that creates a series of opportunities and the player evaluates these opportunities, one at a time. (The exercise does not require that the player be a single person, it could accommodate a multi-person team, playing as a unit.) While this simulation uses technological innovations as the basis for the forming its new firms, the lessons that it teaches may be applied to any entrepreneurial venture. Additional scenarios could easily be

adapted. A description of franchises could be developed, or non-technical enterprises or even professional practices such as physician or dentist practices.

In the initial conference presentation (Murff and Teach 2009) described their ENTREPRENEURSHIP game as:

“The market-place for this [simulated] firm’s product will be in the B2B market space; it will not be sold directly into the consumer marketplace. Initially, the player is presented with a new technology-oriented product-concept by an inventor who has already produced a working prototype. The R&D location where the initial work on the invention had been completed and where the initial working prototype was produced are also provided; however, the invention is currently wholly owned by the inventor without any ownership residuals remaining with the previous employer. Furthermore, the player also receives some initial information on the potential market for the product. The player has the option of receiving further estimates on the viability of this product in its future marketplace in the form of simplified probability distributions. The process of selecting an opportunity does not consume any money, as this phase simply assumes that the entrepreneur is doing the due-diligence while gainfully employed by some unnamed entity. (Quote from page 183.)

This description is important in that it defines the nature of the opportunities and the limitations of the simulation as well as the information the participant is expected to receive and analyze.

WHAT INFORMATION IS INCLUDED IN THE SEARCH FOR OPPORTUNITY

Then a set of questions are displayed, asking the player what additional information the player should want to know. However, if the player wants to skip this information because the initial information provided to the player is unappealing, they are permitted to do so.

The questions are:

1. How much cash will the inventor bring to the equally shared joint-venture?
2. What are the five-year demand estimates? (There are three estimates provided; an optimistic estimate that demand with an 80% probability will exceed this level; an expected value of 50% probability that demand will reach this level and the 20% probability that product will reach this level of demand.
3. What will be the currently expected market price to be received by the firm, at the point of its 100th unit sale? (The reason for using the 100th product is to eliminate the highly variable initial product manufacturing costs of working out all the technical bugs in a new high-tech product)
4. What will be the expected amount of “cost of materials” for the 100th product manufactured?
5. What will be the expected unit labor cost for producing the 100th unit of production needed for manufacturing one unit of the product and what is the current wage rate, including all labor for the intermediate processing, the assembly and final inventorying the product including the palletizing and packaging needs for shipment to the customers?
6. What is the expected number of hours needed in product development before the product has passed its beta test and is ready for the market-place?
7. What is the amount of plant and equipment investment needed to produce the number of units to fulfill the first six months expected sales? As was the case for estimated demand, three sets of values are provided, the 80%, 50% and the 20% probabilities are provided if requested.
8. What is the learning curve coefficient for labor costs of the manufacturing process at the point of the 100th product manufactured; and the learning curve coefficient for material costs of the manufacturing process at the point of the 100th product manufactured.
9. The exercise will display some personal characteristics of the projected product’s inventor partner as well as the inventor partners concerns about the environmental issues.

Each quantitative data estimate will contain three values: A) a pessimistic value; B) the expected value and C) an optimistic value.

At the end of round one, the player writes a twitter tweet (180 characters) describing this opportunity. After the second and ensuing rounds each player will compare the current opportunity to the previously rejected opportunity in a tweet compare their judgments of the current opportunity with the previous opportunity. All tweets are saved in a file to be reviewed after the exercise has concluded.

The game stops whenever the player finds an opportunity that she/he accepts as the best opportunity she/he has observed and or expects to see in future rounds. As is often true in real life, once a player has passed-up an opportunity she/he can never go back, it is gone forever. When a player accepts an opportunity, she/he can no longer search for more new opportunities as they have now made their commitment.

Because the participant sees one opportunity at a time, the play is expected to learn what inherent conditions results in better opportunities as the game proceeds. By repetitive opportunities the player begins to define a personal map of possible outcomes from a variety of opportunities.

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