

USING MARKETING SIMULATIONS: TEN IMPORTANT QUESTIONS

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ABSTRACT

Faculty considering use of a marketing simulation for the first time, as well as faculty who have used marketing simulations for years, are both looking for ways to make more effective use of this learning tool. Used properly a marketing simulation can compress significant amounts of meaningful experiential learning into a short period of time. Used poorly, simulations can lead to frustration and actually become an impediment to effective learning. Based on a literature review and eight years experience using a well known marketing simulation, this article identifies key considerations for effectively using simulations to dramatically increase students' understanding of basic concepts and principles in marketing.

INTRODUCTION

Marketing simulations used properly provide learning opportunities hard to replicate using other modalities. Conversely, marketing simulations used improperly fail to advance learning and can actually lead to a hostile learning environment where students complain that their use is a waste of time. Based on eight years of teaching using a popular marketing simulation, Markstrat3 (Larreche, 1998), this paper attempts to capture and address ten key questions related to the successful use of simulations in the marketing curriculum. Faculty looking to incorporate a marketing simulation for the first time should find this information useful in considering their options. Faculty experienced in using marketing simulations should find this article useful in identifying ways that simulations might provide even greater learning value to their students.

TEN QUESTIONS

1. What unique learning opportunity does a marketing simulation provide?

A truly robust learning environment makes use of all appropriate learning modalities, appropriateness being determined by: the learning objectives to be achieved, the characteristics of the student, the characteristics of the instructor, and the nature of the learning environment.

The objective of providing students with foundational knowledge and an introduction to marketing practice

might most effectively be accomplished using reading, lecture, and testing. In Bloom's taxonomy (Kemp 1977) this relates most directly to the cognitive domain levels of knowledge and comprehension. Advancement to higher domain levels of application and analysis are commonly achieved through the use of case studies and projects that require students to interact with the business community. The highest domain levels, evaluation and synthesis, are hard to accomplish in a non-interactive environment. While other modalities of learning are capable of getting to these levels of learning, the marketing simulation is capable of challenging students to evaluate and synthesize an understanding of marketing at a relatively sophisticated level.

Students who prefer to learn by doing over learning by just studying, faculty who prefer to facilitate learning versus deliver knowledge, and learning environments that stress the integration of theory and practice over the intense study of theory all lend themselves well to the use of simulations as an effective learning tool. Recent studies (see for example Drea, Tripp, and Stuenkel, 2005) continue to demonstrate that active learning activities have a positive impact on student learning, both on student enjoyment of learning and achieving stated learning outcomes.

Integrated marketing. One of the greatest strengths of a well designed simulation is its ability to allow students to experience the interactive effects of the elements of marketing. For example, in the MarkStrat simulation students are forced to consider trade-offs and interactions between advertising and sales force expenditures, learning that these must be considered in tandem with one being used to support or substitute for the other. Such lessons, learned from this experience, are much more likely to stay with the student than having simply read it in a book or having drawn the same conclusion from a case study.

Competitive forces. While case studies allow students to examine marketing decisions in a competitive environment, they fail to provide students the opportunity to experience competition in a dynamic setting. Poor marketing plans in a seller's market can still be successful. Sound marketing plans in a highly competitive market can result in mediocre results. Students learn that their

competitors' actions have as much to do with their results as do their own actions. The simulation challenges students to conduct sufficient market research to generate a minimum level of understanding of the forces in the competitive environment so as to be able to develop plans that incorporate anticipated actions by others.

2. How do you prepare faculty and students for the simulation?

The simulation mechanics. Nothing is more frustrating to students than not fully understanding what it is that they are doing, or why they are doing it. The confidence that students have in the learning experience is anchored by the confidence exuded by the faculty member. Sufficient training and practice needs to take place to get students over the hurdle of the mechanics of the simulation and on to the real purpose of the learning exercise. Students need to perform practice rounds to get the feel of the exercise and learn to appropriately interpret its results. Faculty must be fully trained in the quirks and nuisances of the simulation so to be able to smoothly work through problems as they arise, particularly user interface, data interchange, and report generation problems.

Introducing research tools. Markstrat3 makes extensive use of customer research using three fundamental marketing research methodologies: semantic differential scaling, multidimensional scaling, and conjoint analysis. Training sessions on each of these tools should be offered in advance of using the simulation, starting with generic examples of each tool and then showing precisely how these examples are represented in the simulation. This approach to fully introducing the major research tools of the simulation helps to establish confidence of students in their ability to interpret and draw appropriate conclusions from the research results used to make decisions to successfully compete in the exercise.

3. Should the simulation involve participants from different student populations?

Four different combinations have been attempted using the marketing simulation: undergraduate students in the same class, MBA students from the same cohort (a cohort being a group of students completing a two year curriculum together), teams composed of students from different MBA cohorts, and teams that combined graduate and undergraduate students.

In all configurations attempted the learning and comprehension of marketing concepts appeared high. However, in the latter two configurations where different student populations were brought together, the need to intentionally address team development and group dynamics dramatically increased the learning experience. Given a choice, it is recommended that different populations be brought together and combined on teams to provide a richer learning environment, more effectively addressing the 'soft skills' of marketing management that are required when a team is charged with completing a task.

4. How many people should be on a team?

Prior research (Cosse et. al, 1999), comparing teams of two, three, and four persons in running a marketing simulation found that there was a strong positive relationship between team size and team performance. In their research they emphasized the importance of having equal size teams with teams are competing with each other.

MarkStrat is capable of having four, five, or six teams compete. Consequently the usual configuration has been to divide the class into six equal teams which has resulted in teams ranging in size from three to nine. When the simulation reaches later rounds and the number of products and decisions is greatly expanded, a minimum size team of four to six is desirable to allow reasonable consideration and analysis of the information available. Once a team goes over six or seven, it has been this author's experience that teams become unruly and begin to break down with one or more participants dropping out of active participation. While the specific nature of the simulation will dictate certain constraints, teams of four to six appear to work best.

5. How could student teams structure themselves?

An often lost opportunity of marketing simulations is the conscious self-imposition of an organizational structure on the team. The decision of how teams should structure themselves could be function driven (advertising, sales force, research, product development), product driven (product, brand), or customer driven (market segments, marketing channels). How teams structure themselves will impact how they function and how well they perform. Teams should be required to make a conscious decision of the organizational structure they adopt, and then be forced to hold to it or make a conscious decision to change it. At the end of the simulation,

as part of the debriefing, teams should be required to assess the appropriateness and effectiveness of their organizational structure to the task.

6. How should the simulation be scheduled?

Two delivery schedules have been examined: having students complete one iteration a week for five to eight weeks, and having students complete four to five iterations in one day as an all-day workshop. There are advantages and disadvantages to each format.

Weekly class format. Doing one round of the simulation each week is possible when it is done within a single class. The primary advantages of doing the simulation weekly are that it allows the simulation to serve as a point of discussion related to many topics in the class and it allows adequate time to fully evaluate information for making decisions for the next round. Disadvantages of this format include students losing interest over time, and competing priorities that detract from student focus on the exercise.

Workshop format. Using this format, students are brought together for an all-day workshop and to complete four rounds of competition. This author has found it beneficial to do one or two practice rounds prior to the workshop which facilitates teams getting to know each other, and also allows for restarting the simulation should there be erroneous or critical errors in initial team decisions. The primary advantages to this format are that they allow bringing together students from different populations and they generate a more intense sense of collegiality within teams and sense of competition between teams. Forcing students out of their comfort zone appears to challenge many to take a more active role in the exercise. At the end of each round students are brought together into one room to share the performance results, highlighting the relevant performance of each team. This sometimes "circus like" atmosphere brings much energy and enthusiasm to the exercise which increases effectiveness in achieving learning outcomes.

7. How many iterations of the simulation should be run?

Prior research (Redmond, 1989) reported that learning proceeded at a slower rate after the fifth iteration of the simulation. This author's experience with running the simulation would appear to anecdotally support Redmond's conclusion. Students continue to improve in their ability to manage, and continue to improve their performance,

up to and through the fifth iteration. Going on to a sixth iteration, particularly in a workshop setting where iterations are conducted consecutively, begins to challenge the attention span of the participants. One option, for those students who might be interested, is to allow the simulation to continue on a voluntary basis allowing interested students to continue to engage in the activity.

8. How do you expand learning with each iteration?

Increasing simulation scope. Built in to most simulations is the ability to turn on or off specific features, allowing the faculty member to control the scope of the simulation. In MarkStrat the faculty member is able to limit the number and types of decisions made by teams, the number and type of reports available in order to focus the attention of teams, and the number and types of brands that may be introduced. Limiting access to features in a practice round, or in the first round of the simulation is a good way to ramp up students on the simulation. However, so students have the full experience, it is important that all or most features are available as soon as possible. Otherwise, students feel as though they are being forced to compete as though they had one hand tied behind their back.

Use of queries. At the start of each iteration one technique to infuse new learning is to use queries to cause teams to reassess and reflect on their process and current situation. Based on observations made during the prior round, the faculty member poses rhetorical questions to the teams to think about as they launch into their next round. A number of queries posed in past executions of the simulation included:

- What are you managing best: Production? Market segments? Marketing channels? Marketing mix?
- Do you know: Where you are now (control)? What direction you want to head (tactics)? Where you want to end up (strategy)?
- Is your division of duties effective? If not, are you willing to change?
- What decisions and analyses are best completed by the team as a whole? What decisions are best delegated to subgroups of individuals?
- Which is most effective for your understanding of information, tables or charts?
- Who is driving your strategy, you or the competition?
- How does your team respond to errors in logic or process by individual members?

9. How do you keep the simulation fun?

Competition. Perhaps the most effective method for maintaining enthusiasm and interest for the simulation is to emphasize the competitive nature of the activity. At the end of each iteration a general meeting should be held with all teams present, and the results announced for the first time. To the extent that it does not provide competitive advantage, comparative results are shared to show which teams are excelling and in what ways. Just as in real business, competition challenges motivated students to want to learn from their mistakes and the success and failure of others.

Making awards. Use of a digital camera is effective in capturing different dynamics of team functioning. In the workshop competition where each team has its own classroom to work in, photographs of the whiteboards show different styles in presenting and organizing data. Shared in the general meeting at the end of a round, whiteboard awards have included "best use of color," "straightest columns with the most digits," and "most eclectic." How students arrange themselves in the room is also telling as to their willingness to take control of their environment. Photos of different arrangements have included "six bosses, one slave," "huddled in the corner," and "centered on technology."

Capturing comments. One of the best ways discovered to keep the experience light and fun is to record and feedback actual comments made by participants during the competition. Comments recorded in the past have included "I'm really glad he discovered that, I was reading the report backwards," "which is better, to win or to learn and take big losses," "now this is starting to require math, this is not a good thing," and "it's hard to be the best and remain humble too."

10. How do you assess learning from the simulation?

A difficult task for any group exercise is to meet the criteria for assessing individual learning. While it might be possible to evaluate the team based on relative performance on the simulation, teams who do the best often learn the least (as their initial guesses were good), and teams that do the worst often learn the most (as they struggle hardest to understand what is going on in an attempt to improve the results). A better way to assess learning is to require students to write an individual assessment of their personal performance on the simulation. Three questions that potentially identify advanced levels of learning are: (1) What three

marketing concepts that you understand clearly were best demonstrated by this simulation? (2) What three marketing concepts presented in the simulation do you now know you do not understand as well as you should? and (3) What is your plan for addressing these knowledge deficiencies? This type of analysis forces students to identify their own strengths and weaknesses, and motivates them to accept responsibility for addressing any identified deficits.

CONCLUSION

Marketing simulations offer the opportunity for students, through active learning, to experience the interactive effects of marketing concepts while at the same time develop team and organizational competencies, outcomes not as readily achieved through other modalities of learning. Marketing simulations, used properly, require significant preliminary planning by faculty to be successful. Such planning includes proper consideration of team size, team structure, simulation scheduling, and number of iterations. Marketing simulations often fail due to lack of adequate training of both faculty conducting the simulation and students participating in the simulation. Proper use of sophisticated marketing simulations requires a significant investment of time by the supervising faculty member to ensure smooth operation of the experience.

Learning using simulations is most effective when students are enthusiastic throughout the learning experience. The use of management queries during the experience can drive students to constantly look for new lessons to learn from the experience. By capturing pictures and words of teams in action, the experience can also be made to be fun. Presented properly, marketing simulations can be that one learning experience that students identify as the most valuable learning experience of their business program.

REFERENCES – available from author