Simulations, Games and Experiential Learning Techniques, Volume 1, 1974

MARKETING INTERACTION: A MARKETING MANAGEMENT GAME

Stephen K. Keiser, University of Delaware

MARKETING MANAGEMENT GAMES

Increasingly, teachers of marketing management have become cognizant of the need to use simulation games. Simulation games, providing students with the tasks of planning and implementing various strategy elements of the marketing mix, have been added to college-level courses in marketing management. Although games have been developed and adopted for courses in a single strategy area of marketing management such as advertising or sales management, the game, Marketing Interaction, discussed in this paper pertains to those college courses which focus on the management of all marketing activities.

Simulation games which have been developed for the marketing management course include "Marksim," "Marketing in Action," "Marketing Strategy," and "Compete" (1; 2; 3; 4). Available marketing management games vary in their content as types of products marketed in the games include soda, sound systems, and automobiles. Moreover, the available games range from those such as "Marketing in Action" which was developed over ten years ago to very recently developed games such as "Compete".

Although the available marketing management games vary in their characteristics, they are generally used for similar classroom purposes. The major purposes of a marketing management game include helping students learn to apply principles and practices of marketing management to the management of all strategy elements in a quasi-realistic situation. Moreover, simulation games are used to teach students how to adjust strategies to satisfy constraints imposed by a dynamic environment. Although other benefits of gaming such as learning about the behavioral dimensions of team work, it is the viewpoint of the author that learning to apply concepts to all dimensions of marketing strategy in a dynamic environment should be the major goal of use of marketing management games.

EVALUATION OF AVAILABLE GAMES

Classroom evaluation of several of the available marketing management games resulted in game weaknesses which may detract from the chances of successful accomplishment of goals set for these games. Major emphasis during the examination of marketing management games was on the decision variables included in the games. The decision variables included in "Marksim," "Marketing in Action," "Marketing Strategy," and "Compete" are summarized in Figure 1.

One weakness felt to exist in these games was that certain strategy elements of marketing management are ignored while non-marketing variables may be over emphasized in terms of relative impact on game performance.

Generally, these games do not include some aspects of product line decisions such as product addition or product life cycles.

FIGURE 1

DECISION VARIABLES OF COMPETITIVE GAMES

	NAME OF GAME			
Type of Decision	Marksim	Marketing In Action	Marketing Strategy	Compete
Product	Production Scheduling Product Quality	Production Scheduling Product Addition Product Character Package	Production Scheduling Brands	Research & Development
Price	Retail Price	Price per case for 3 products	Retail price for 3 brands	Wholesale price for 3 products & regions
Place	2 Channels Size of Shipment		Number of Dealers Allocate Dealers among brands	Size of Shipment
Promotion	Size of Advertising Budget Advertising Allowances for retailers	Size of Sales Force Allocate Sales Force to products	Size of Advertising Budget Allocate Advertising to brands	Size of Advertising Budget Allocate Advertising to products, media, & regions Salesmen profit sharing

Similarly, available games require few, if any, channel management decisions. Channel decisions in these games may include determination of number of dealers to sell automobiles or setting the size of shipments to different markets.

One major nonmarketing variable which predominates at least one of the available marketing management games is production scheduling. Student performance in the "Marketing Strategy" game depends, to a great extent on the accuracy of production scheduling.

Another weakness of available games relates to the purpose of learning in a dynamic environment. Most games tend to offer the student a relatively constant level of difficulty throughout the periods of the game. As a result, these games do not provide the student with an opportunity to apply his knowledge of marketing management to problems of increasing difficulty during the duration of the course. The student's task of applying what he has learned may be decreased in difficulty if the initial game experience is at a relatively simple level with increased levels of difficulty introduced in later stages of the game.

MARKETING INTERACTION

Using the input of undergraduate marketing management majors, Marketing Interaction, was developed. The game requires participants to make decisions about marketing garments to the consumer market. The major decisions required in the game are summarized in Figure 2.

Product Decisions

As indicated in Figure 2, product decisions In the game include choice of new products to add if new products are discovered based on the amount of Research and Development expenditures, deletion of products, and allocation of Research and Development expenditures among marketed products. Each team starts the game marketing the same product and are provided a choice among nine other products when new products are discovered.

Price Decisions

Price decisions include establishing prices which are submitted to channel members as part of a bid to acquire the agreement of channel members to stock a firm's product. These retail selling prices may be changed after the channel has agreed to stock the product although a penalty on sales results from variations from bid prices.

The channel markup decision involves establishing the percentage of retail sales which is guaranteed to the channel through which the sales are made. These channel markup percentages are fixed when a channel contract is established between a seller and the channel. These markups cannot be varied until the channel contract expires.

FIGURE 2
DECISION VARIABLES OF MARKETING INTERACTION

DECISION VARIABLE	DECISION REQUIRED IN MARKETING INTERACTION
Product	Product addition or deletion for 10 products
	Amount of Research & Development expenditure
	Allocate R & D among game products
Price	Suggested retail price set for channel bids
	Channel markups as a percent of retail price
	Actual retail price for each product sold and each channel used
Place	Choice of 20 game channels for which price and markup bids are submitted
Promotion	Size of advertising budget
	Allocate advertising among 5 media

Place Decision

The channel choice decision of "Marketing Interaction" is discussed in more detail than other decision variables due to its divergence from available games. There are twenty different channels in the game which will market products of those companies which provide them with the highest projected revenue. In order to evaluate the channel offering of game companies, each company must submit channel bids which consist of channel markups expressed as a percent of retail selling price and the retail selling price the company will most likely charge if a channel will accept its bid.

Channel bids must be submitted prior to the initiation of game play as students do not have channels for the one product they are marketing. Teams also have to submit channel bids at the end of the fourth period of play because initial channel contracts expire in four periods. In order to keep the game dynamic, the duration of channel contracts made after the fourth quarter of the game are shortened to two periods. Consequently, bid decisions must be submitted after periods six, eight, ten, and twelve.

An overly complex game environment is avoided by informing teams about the availability of new products immediately prior to the submittal of

the bid decision. Therefore, channel bids are made simultaneously for both old and new products.

The basic model used to evaluate the channel bids of each team is shown in Figure 3. The bid price submitted by each team is evaluated against historical prices for the product for which the bid is submitted and psychological price endings. The result of this process is a price effectiveness index for the firm. The resultant price effectiveness index is compiled in indices of channel effectiveness, product effectiveness, and game period to project sales for the firm through the channel for which a bid is submitted for the product being sold and for the game period during which it will be sold. Finally, the bid markup is multiplied times projected sales to determine the expected return to the channel. Channels then select those bids promising the highest dollar markup. However, the number of bids accepted by channels carries from one to all firms. This limitation is set in the game.

Available game channels vary in their characteristics. Some channels consist of no middlemen while others include some combination of retailers, merchant middlemen, or agent middlemen. Moreover, the game channels vary in their effectiveness in selling each game product. Marketing information can be purchased about the effectiveness of the channels.

Another way, in which available channels vary, is that their historically acceptable markups range from eighteen to thirty-eight percent. Furthermore, the minimum gross margin which the channel expects each period differs among channels. Some channels require sellers to guarantee $9,000 in channel markup per period while others require quarterly minimums in excess of $20,000.

Promotion Decisions

The nature of the promotion decisions in “Marketing Interaction” are comparable to available games. Students are required to allocate their advertising budget among two types of national television advertising and three nationally distributed magazines.

Marketing Research

The marketing research decisions in the game include a relatively different twist than that available in other games. The student participant must decide how much reliability he desires to pay for in his marketing research information. As an example the various costs and degrees of reliability of information about competitors’ expenditures for Research and Development are shown in Figure 4. Available degrees of reliability of estimates of Research and Development expenditures range from 52 to 97 percent with a range of costs between $21,000 and $333,000.

FIGURE 3

MODEL OF CHANNEL BID

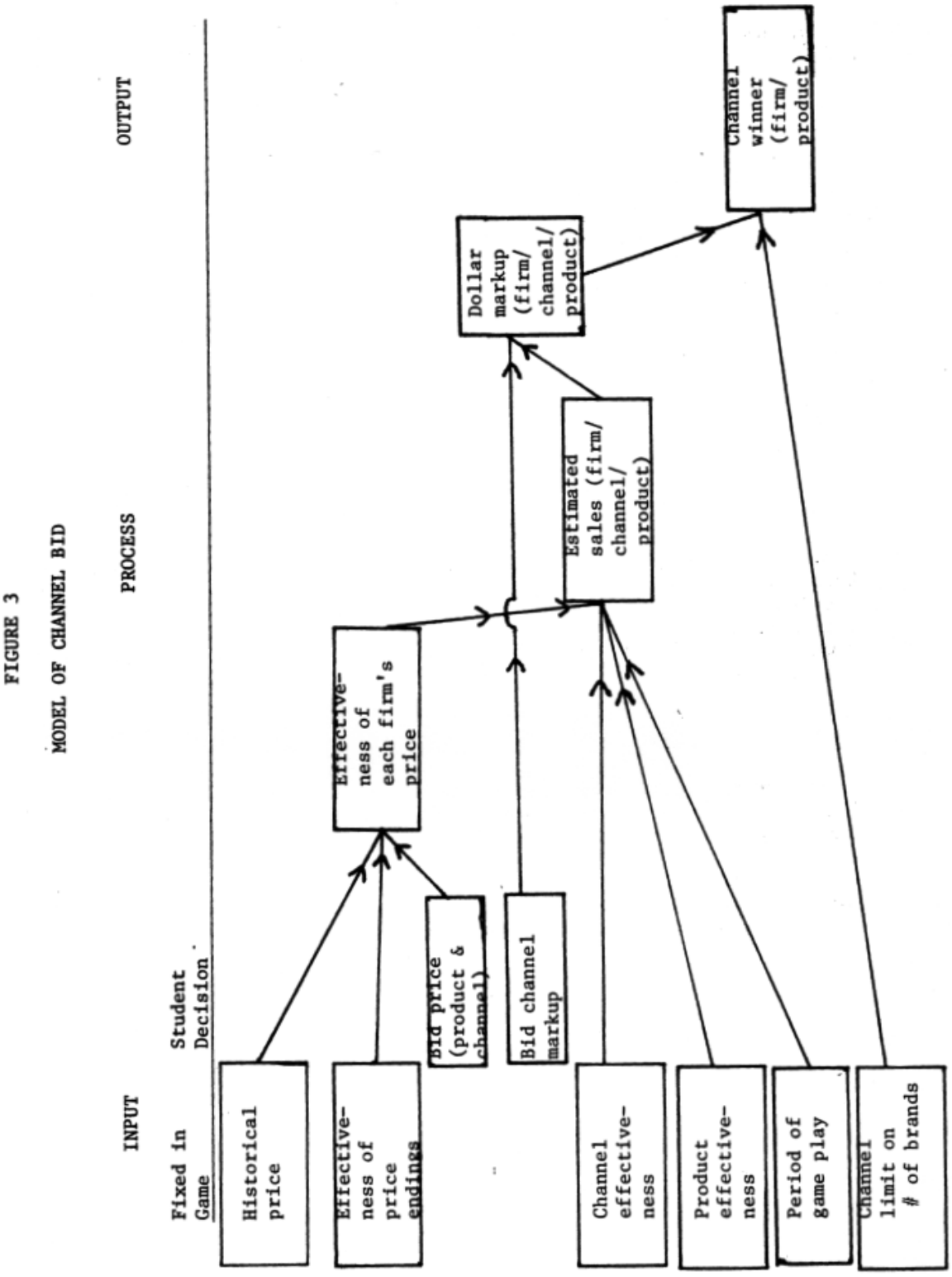

Figure 4

Reliability and Costs of Estimates of Competitors'

Expenditures for Research and Development

Degree of Reliability	Cost Per Product
52%	$21,000
64%	$28,000
76%	$42,000
82%	$56,000
88%	$83,000
91%	$111,000
94%	$167,000
97%	$333,000

Game Complexity

Finally, game design does involve increasing complexity as the game progresses. The manner in which this complexity is introduced is through the increased number of products which can be marketed by firms. Each firm starts out with one product and can finish the game with ten products. However, the game administrator, can reduce this complexity by terminating the game at the end of the first four periods of play.

GAME EXPERIENCE

Classroom testing of "Marketing Interaction" has shown that students are learning the need to simultaneously balance all the marketing mix variables. Generally, the initial reaction of students to any game is to hunt the one decision variable which provides the key to instant success. As a result of revisions in the channel bid evaluation procedure and the dynamic nature of the game students have found that decision simplification cannot successfully replace careful planning of all variables.

REFERENCES

1. Greenlaw, Paul S. and Fred W. Kniff in, Marksim: A Marketing Decision Simulation, (Scranton, PA: International Textbook Co., 1964).

2. Day, Ralph L. and Thomas E. Ness, Marketing in Action, (Homewood, Illinois: Richard D. Irwin, Inc., 1973).

3. Boone, Louis E., Marketing Strategy: A Marketing Decision Game, (Columbus, Ohio: Charles E. Merrill Publishing Co., 1971).

4. Faria, A. J., D. G. Johnstone, and R. 0. Nulsen, Jr., Compete: A Dynamic Marketing Simulation (Dallas, Texas: Business Publications, Inc., 1974).