

Developments In Business Simulation & Experiential Exercises, Volume 20, 1993

SALES MANAGER: A SIMULATION

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ABSTRACT

Sales Manager is a personal computer based simulation game designed for use in introductory sales management and salesmanship courses, as well as in business sales training programs. Participants assume the role of the top sales manager for a large business firm. The simulation is placed in the industrial marketplace, actual secondary data defines the industry, and the simulation content generally reflects the direct industry experience of the authors. Numerous substantive features have been incorporated reflecting accepted principles of sales management. And the hardware and software platforms supporting the games administration take advantage of the most modern and widely available technology.

INTRODUCTION

The purpose of this paper is to introduce the Sales Manager simulation game. Planned for availability for the 1993-94 academic year, the game will be the most current of its type, incorporating modern computer hardware and software developments. The game is presently undergoing beta testing at several universities.

Sales Manager is a simulation game designed for use in introductory sales management and salesmanship courses. It can also be used by business firms in sales training programs. The game is dedicated to sales management exclusively. It does not include marketing strategy areas such as pricing, advertising, product development, and the like which are usually not in the domain of sales management.

Simulation Environment

The Sales Manager simulation places participants in the role of the top sales manager for a large business firm. The context is the industrial marketplace, specifically plumbing fixtures. The industrial or "business" marketplace is huge, with annual shipments of well over US \$6 trillion. Too, the promotional mix of industrial marketers is typically dominated by personal selling as opposed to advertising and sales promotion. This Sales Manager context, then, is reflective of a realistic and prominent setting in which sales manager's function.

Complementing this realism, the Sales Manager environment is defined in the Player's Manual using actual industry data from sources readily accessible to participants.

Simulation System

The Sales Manager simulation system comprises two components: one for use by the simulation administrator (Sales Manager) and one for use by the simulation players (Sales Manager Assistant). Each component consists of the appropriate manual plus related software.

(Sales manager Administrators Manual

SALES MANAGER

(SMANAGER (Sales Manager) Administrator
diskette

SALES MANAGER
ASSISTANT

(Sales Manager Player's Manual

(SMASSIST (Sales Manager Assistant)
diskette

STRATEGY DECISION MIX

The mix of strategy decisions encompasses most of the functions, which together make up the basic responsibilities of sales managers.

A total of 29 strategy decisions which affect sales force performance are made by players each period. In addition, 9 market research reports may be purchased providing information as to competitors strategies and sales performances. A sample decision form is included at the end of this paper.

Basic Organization

Perhaps the most fundamental decision within the sales management function is the basic organization structure of the sales force. A significant feature of Sales Manager is that the sales force may be organized on either a product basis or a customer basis. The products--faucets, sinks, acrylic modular bath units--embody a wide range of types of buyers, sales volume, unit value, stages in the product life Cycle, need for technical knowledge in selling, and so on. Similarly, the customers--plumbing wholesalers, large buyers, specialty manufacturers--comprise a diversity of buying modes, order sizes, degrees of customization, numbers of potential customers, and so on.

At the beginning of each simulation year, the organization structure may be changed by Company decision from product to customer or vice versa. This fundamental decision pervades nearly all elements of the sales manager's strategy. Specifically, of the 28 remaining essential decisions (excluding research report requests), 24 are on a "segment" basis. That is, these decisions are specific to a given product segment or to a given customer segment. Each segment, be it one of product or customer, is endowed with a specific market response protocol. Thus, the simulated environment actually comprises six sets of parameters, a given subset of three coming into play depending on the organization structure decision.

Within each industry, competing companies need not be organized on a common basis. The Sales Manager algorithm is able to reconcile strategy decisions made under both organization bases.

In addition to having players make this realistic and fundamental decision with its many implications for the entire sales management strategy, this feature also captures the principle of segmentation in marketing generally.

Personnel Management

The sales manager may determine the size of the sales force, which essentially involves hiring and firing with accompanying cost and effectiveness implications, in each product/customer segment. A more experienced sales force is a more effective salesforce. As well, the span of control of each sales manager is decided. (The actual number of sales managers is automatically determined from the size and span of control decisions.) Both oversupervision and undersupervision result in inferior sales force effectiveness.

Salespeople dissatisfied with their overall compensation eventually resign, with implications for both the general experience level of the sales force and delays in restoring the size of the sales force to full strength.

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For purpose of communication among management and the sales force, any number of sales meetings may be called. Such communication increases sales force effectiveness. As these are local meetings, there is no dollar cost of sales meetings. However, the amount of time salespeople are at the meetings and not in the field is reflected in sales performance.

As a form of basic call planning, the proportion of sales force time allocated to each product/customer segment must be decided.

All personnel management types of decisions are repeated within each product/customer segment.

Sales Force Development

New hires automatically enter a sales training program and, thus, are not fully effective during their first period of employment. Beyond this, advanced sales training for present individual sales people may be conducted at both the out-of-pocket cost of the training program and the opportunity cost of their being absent from the field during the training period. Salespeople who have received this advanced training, however, may be expected to improve their sales performance.

Too, a sales conference may be held, involving the entire sales force. Sales conferences entail a substantial monetary cost as well as the impact of all the salespeople being out of the field during the conference.

Sales Promotion

Salespeople may, within limits, offer potential customers a discount from list price as an inducement to close the sale. Compensation

Consistent with the classic compensation model, the sales force may be paid either a straight salary, or a percentage commission on sales, or a combination of salary and commission. The compensation plan applies to all salespeople regardless of product/customer segment. Perhaps conceptually there are competitive gains to be made via different compensation plans for salespeople in different segments. Realistically, though, differential compensation schemes within a company are relatively rare in practice.

Incentives

In keeping with the sales management function of setting goals, sales quotas may be specified and a bonus paid based on salespeople achieving the specified quotas.

Any of three types of sales contests--cash, merchandise prize, vacation--may also be conducted as a special form of incentive. Awards are made on the basis of salespeople exceeding their quotas.

SIMULATION RESULTS

Player Feedback

Basic feedback to players each period of the competition is in the form of a standard income statement and balance sheet.

Additional information specific to the management of the sales force is also provided. This includes sales force status with regard to size, number who have received advanced sales training, morale, turnover, and so on.

Market research reports, as purchased by players, provide information on competitors' strategies and sales performances.

Feedback may be provided in either print form, as generated by the administrator, or via players' SMASSIST diskettes. With the diskettes, players may either display feedback information on their computer monitors or produce print output themselves.

Multiple Performance Criteria

Bottom line performance of Sales Manager companies is, of course, profit or, cumulatively, earnings per share. However, other criteria more specific to the sales management function may also be invoked, such as turnover, resignations, morale, various cost-benefit ratios, and so on. This and other information appropriate for administration purposes may be either displayed or printed by the administrator using the SALES MANAGER diskette.

COMPUTER ADMINISTRATION

Manual

Administration of Sales Manager is computer-based. In its "bare bones" mode, players write their strategy decisions on forms provided in the Player's Manual. These handwritten forms are submitted to the administrator who is responsible for entering these into the computer (using the SALES MANAGER diskette).

Once all the companies' decisions have been entered, the SALES MANAGER software analyzes the decisions and produces results for the period. The administrator may then print results for return to each company as well as reports for the administrator's own use.

Diskette

Instead of submitting written forms to the administrator, players may alternatively place their strategy decisions on the SALES MANAGER ASSISTANT diskette and submit the diskette to the administrator. This mode basically avoids the logistics of the administrator having to manually enter decisions and also reduces decision entry errors.

In this mode, results may also be returned to players on the SALES MANAGER ASSISTANT diskette. Players may then print the results themselves and/or review the results on the computer screen. This, again, avoids the logistics of the administrator having to print results for return to all companies.

ADMINISTRATOR CONTROL

Sales Manager may be administered very straightforwardly. By using default options, all that is essential to start a new competition is for the administrator to specify (1) the number of industries and (2) the number of companies in each industry.

The performance of a given Sales Manager company depends on (1) overall market sales potential and the effectiveness of the company's decisions relative to (2) the fixed environment defined by the SALES MANAGER software and (3) competing companies' decisions. Accordingly, (1) overall market potential, (2) the sensitivity of the environment to each of 28 strategy decisions, and (3) the balance between environmental versus competitor determination of strategy effectiveness may be specified by the administrator at the start of a new competition and altered at any time during the competition.

The competition may also be optionally customized by specifying unique company names.

Computer User Friendliness

Many features of Sales Manager are designed to enhance user, i.e., both administrator and player, friendliness. Among these are specifiable levels of administrator familiarity, complete menu driven format, thorough error detection, screen-based keyboard entry of decisions for both administrator and players, numerous default options, backup recovery procedures, and so on.

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MARKET RESPONSE MODEL

The algorithm by which Sales Manager processes strategy decisions is custom designed for the sales management function specifically. Rather than making use of a single-equation generic demand model, the market response to each strategy decision has been operationalized separately, taking into account fundamental form of relationship, threshold conditions, diminishing marginal response, decreasing response, and so on. Unrealistic decision values are processed in a regular or "natural" manner, without the imposition of arbitrary measures. That is, the model behaves regularly for all decision ranges.

In many instances, strategy decisions interact, allowing for realistic synergistic effects and capturing the importance of an integrated strategy.

Obviously, some sets of strategy decisions are more effective than others; company performance in Sales Manager is in no way arbitrary. At the same time, the ability of the administrator to customize the environment sensitivity to any or all strategy decisions, the presence of interactions, and effectiveness being determined in part as a function of competitors' decisions, results in there being no single "best" strategy. (Astute players would soon discover and share such a best strategy.) Rather, the overall performance of a given company depends on the players' abilities to adapt their strategies to the environment and to their competitors' strategies.

HARDWARE REQUIREMENTS

For the administrator, Sales Manager operates on a stand-alone basis, requiring only a single IBM-compatible personal computer having at least 640K bytes of internal memory and a hard disk drive. An 80-column (or wider) dot matrix or laser printer is also required. A color monitor is optional. This minimum configuration is the most widely in use.

The administrator may choose between player handwritten decision form or use of the players' SALES MANAGER ASSISTANT diskette as the mode of strategy decision input to SALES MANAGER. With the latter, it is required that players have access to an IBM-compatible personal computer with a high density floppy disk drive and that the administrator's computer be equipped with a similar floppy disk drive.

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Period

Industry

Company

SMS DECISION FORM

Section A

Sales Force Organization:	Product <input type="checkbox"/>	Customer <input type="checkbox"/>
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Section B

	Faucets/ Plumbing Wholesalers	Sinks/ Large Buyers	Acrylic/ Specialty
Size	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Span of Control	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Sales Training	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Discount From List	<input type="checkbox"/> <input type="checkbox"/> %	<input type="checkbox"/> <input type="checkbox"/> %	<input type="checkbox"/> <input type="checkbox"/> %
Sales Meetings/Month	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sales Quota (000) \$	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Bonus \$	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Section C

Salary	\$	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Commission		<input type="checkbox"/> <input type="checkbox"/> %
Sales Contest:	Cash <input type="checkbox"/>	Prize <input type="checkbox"/>
	Trip <input type="checkbox"/>	None <input type="checkbox"/>
Sales Force Time:		
Faucets/Plumbing Wholesalers		<input type="checkbox"/> <input type="checkbox"/> %
Sinks/Large Buyers		<input type="checkbox"/> <input type="checkbox"/> %
Acrylic/Specialty Manufacturers		<input type="checkbox"/> <input type="checkbox"/> %
		100%
Sales Conference:	Yes <input type="checkbox"/>	No <input type="checkbox"/>