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

STRATEGY SIMULATIONS IN CONTEXT: AN EVALUATION OF KEY DIMENSIONS IN DEVELOPMENT

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ABSTRACT

Strategic management simulations are often used in capstone business courses to further challenge students with top-level decision making. Existing simulations are assessed in this paper and evaluated across the three dimensions of user friendliness, comprehensiveness, and theoretical grounding.

INTRODUCTION

There are a wide range of strategy simulations available for use to assist in understanding the realm of the strategic manager. Such games fall under the umbrella of what has been termed "total enterprise games" and include models of the functional areas of production, marketing, finance, and personnel. These simulations range from simplistic models and algorithms to complex menu-driven scenarios encompassing global dimensions. The frameworks and underlying theories behind each simulation varies considerably, each with its own pedagogy, emphasis, and context.

DIMENSIONS OF STRATEGY SIMULATIONS

User-Friendliness

Strategy Simulations typically require the formation of teams of 3-5 individuals, with each member acting as a senior management strategist. An industry of teams is then organized to set the parameters for competition between teams. Each team takes possession of identical organizations, both in terms of financial structure and operating variables. This setup is typical of most senior-level and MBA-level business policy and strategy course simulations.

Today's simulations require substantial time involvement's for the gamer on the computer. Indeed, game organizers can state that the quality of each team's decision for a given time period is function of the number of hours spent running what-if scenarios and attempts to learn how the game's model works.
Several simulations involve such sophistication in modeling that preparation study of a week of more is required before players can begin entering data for decisions. For the first time user, the learning curve is steep when using today's simulations. Cotter & Fritzsche's (1992) Business Policy Game, Preismeyer's (1992) Strategy, and Thompson & Stappenbeck's (1992) Business Strategy Game all involve the use of complex models of strategy. Decision inputs include financing, production, marketing, and a series of decisions involving strategy-based issues.

Game developers have resorted to the use of menus and sub-menus to convert the logical organization of the game to an user-friendly format. It has been the integration of menus, more than any other aspect that has allowed simulations to become more complex. Without these menus users would have to be trained in programming languages. Yet, menus are meaningless without a well-structured manual. Help screens can walk users through problem areas, but the logical view of the game must be learned through in-depth reading of the manual. Offering on-screen help for each area of input is valuable, but an easy reference manual beats on-screen help in terms of trouble-shooting.

Comprehensiveness

The degree of complexity of a given simulation need not correlate with the level of comprehensiveness. By comprehensiveness I refer to the packaging of the strategy simulation. Typically, one area of a game receives more attention by the developers. A true comprehensive simulation encompasses all areas of the total business enterprise. Further, comprehensiveness entails applying the same degree of rigor in modeling across the entire simulation. Comprehensiveness also involves the modeling of linkages between functional areas in the simulation. These linkages grow in complexity as variables are added t. the simulation. Problems in the area of software defects stem from attempts to create more comprehensive packages. This problem is exacerbated by the fact that product life cycles for simulation versions grows shorter. The race to provide the "hottest" simulation continues.

Versions are updated to compete with the latest offerings from rival publishers, further complicating the lives of both users and adopters of game.

Technological changes in development offer unlimited potential to adopters of simulations. Yet, another trend is worth note. There has been, and will continue to be 1) lags in development between hardware and software and 2) lags between software development and user productivity. Hardware is hitting the market faster than programmers can write code that take advantage of hardware's new capabilities. This continues to be a problem endemic at the industrial level in the use of all categories of computers. There is another lag between the development of software and the ability of the user to learn how to use it. First time users face the steepest learning curve in the use of simulations, but even those familiar with simulations have to relearn or unlearn model algorithms as they switch between versions of the same game or to entirely new game. This fact applies to both adopters of the game as well as the players.

There are a wide range of strategy-related courses at the college and university level that would be enhanced by the inclusion of a game. Since strategy is an integral component of any functional area, simulations must identify whether their focus is solely on the area of strategic management or if the game is appropriate for applications in other functional areas. Merely labeling the game as "strategic" does not specify the parameters within which the game holds relevancy.

The term strategy' has been used as catch-all word for any game relating to the types of decisions that top managers make. This has resulted in the marketing of simulations that may appear on the surface to be true comprehensive strategy games, but in fact focus on one functional area.

Theoretical Grounding

The theory underlying simulations is often ignored when discussing the worth of the particular game. Yet, without firm grounding in theory, the simulation teaches relationships without substance. This is akin to training an individual in how to build a special-purpose computer without telling him or her the purpose for which the computer is being built. Teaching strategy in this fashion is almost as dangerous, since lack of theoretical justification provides no real understanding of cause-effect relationships.

Simulations are the next best thing to real-world situations when it comes to practicing strategy. Yet, unless simulations are directly tied to frameworks for analysis, the simulation appears to be a stand-alone from theory. For example, teams can practice what-if scenarios for various combinations of price, quantity, and distribution, but unless feedback is given to them on how such variables affect specific concepts in strategy, such as competitive rivalry or how the value chain concept fits into their competitive positioning, then the simulation remains separate from the theory.

CONCLUSION

The above three dimensions offer potential for assessing the net worth of simulations. It is hoped that a quantifiable framework using the three dimensions will be developed to assist adopters and users of such games.

REFERENCES

References are available upon request.