ASTUTE BUSINESS POLICY: A SIMULATION OF THE AUTOMOBILE INDUSTRY

Steven C. Gold, Rochester Institute of Technology
Harvey I. Gold, Johnson & Johnson

ABSTRACT

This presentation provides a hands-on introduction and demonstration of the Astute Business Policy simulation, published by SHR Associates and co-authored by Steven Gold and Harvey Gold. The simulation involves managing a company in the automobile industry and trying to achieve the objectives of the firm. Participants will be shown how to use the software to set objectives for the firm, enter tactical decisions, and run the program. After learning how to do this, participants will have the fun of trying it on their own and competing against firms managed by the computer program. The Astute simulation is best suited to teach strategic management and business policy concepts.

THE DEMONSTRATION

The purpose of the activity is to discuss and illustrate the use of the Astute software package to teach, experientially, introductory and advanced business policy and strategy concepts. The demonstration will include:

1. an explanation of the Astute Business Policy simulation and how it may be used in the classroom.

2. a *live* demonstration of Astute using the software.

3. a brief review of the student manual and instructor manual which accompany the software.

4. *bands-on* use of the software by session attendees. A 5-minute game will be proposed which will allow session attendees to sit at a computer and try using the program to see how it works first hand.

SIMULATION DESCRIPTION

Astute refers to "A Strategic Tool for Understanding The Environment" and is an interactive business simulation designed to help students gain a better understanding of the entire business environment. The simulation allows students to manage one of the six real-world automobile companies including: GM. Ford. Chrysler, Honda, Toyota and Nissan. The Participants version of the software can be used by an individual or group to compete against the computer, while the Administrator's version lets students compete directly against each other.

To use the simulation, students enter the objectives they want to achieve and their operating decisions. A Gap Analysis report is provided showing the students how well they are doing in meeting their own targets. The Astute Manual carefully explains both the mechanics of using the program and the likely consequences of the decisions. Students decide what price to charge; how many cars to produce next quarter and how much to keep in inventory; whether to invest in plant and equipment, and if so, how much; the marketing budget; research and development expenditures; whether to buy or sell marketable securities; dividend policy; whether or not to make an acquisition; cash transfers between parent and subsidiary; and the amount of market research to purchase.

With the Participant versions students may execute the simulation on their own and print reports summarizing their performance. The reports include: income statement, balance sheet, technical reports on production and operating capacity, gap analysis, and market research reports on the economy, industry, and competition.

DISTINGUISHING FEATURES

There are several unique features to the simulation:

1. Team vs. Computer. Students may compete against the computer and execute the simulation on their own. In this case the performance of each student/team is independent of the other teams in the class. Alternatively, students may compete in teams against each other. In this case, the decisions of each team will effect the simulated market and the performance of their colleagues.

2. On line objective setting. Students may enter the objectives and priorities of the firm. A Gap Analysis report measures the performance of the firm against the goals it has established.

3. Realistic environment and market. The simulation modals the real-world automobile industry. The firms in the market include: GM, Ford, Chrysler, Honda, Toyota, and Nissan. Each firm in the market begins with a different demand and cost structure. GM starts with 40% of the market while Nissan has a market share of only 6%.

4. What-if analysis. Each student has their own software and may do what-if analysis. This involves returning to the prior period and entering different decisions to see what would have happened. In the what-if mode the rival decisions, economy, and market factors do not change. In this way the student can observe the partial effect of changing price or other operating decisions.

5. Acquisition decision. The simulation allows a firm to purchase a second company in a related industry. This allows for diversification.

6. Easy to understand and use. The software is menu driven and the student's manual is clearly written. The software has been upgraded several times based on student and instructor feedback. Version 4.1 is currently available.

EQUIPMENT REQUIREMENTS

Any IBM compatible PC with DOS 2.0 or higher RAM of 640K is sufficient. To install on the hard disk requires only 340 bytes for the student's simulation (participant version) and 370 bytes for the instructor's simulation (administrator version); combined this uses less than 1 MB. Using an IBM PS/2 computer the simulation will execute in 40 seconds. Any printer will work graphics or laser. Two pages of hard copy printouts are generated for each firm, plus a two-page instructor's summary report.

AVAILABILITY

The simulation is commercially available through SHR Associates, 20 West Main Street, High Bridge, New Jersey 08829; (908-638-4490)
For questions on simulation content you may content one of the authors, Dr. Steven Gold, College of Business, Finance Discipline, R.I.T., Rochester, NY 14623; (716-475-2318 or 716-475-5157)1