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PREFACE

WHAT IS MOGUL CEO?

*Mogul CEO* is a computer-based model that simulates a small manufacturing company that produces two products — Product 1 and Product 2. The manufacturing process consists of forming plastic raw materials (sheets of plastic) into the finished consumer products. The products are sold through retail markets to the general public. The two products are not substitutes for one another, nor are they complementary. This means that sales of one product do not effect sales of the other product. You will also have to decide whether to make the products yourself or to sub-contract the manufacture of them to another company.

There are two versions of the *Mogul CEO* program, *Mogul CEO Team* and *Mogul CEO Solo*. In *Team Mogul CEO* you will be part of a group that will manage your company. Your company will compete with other companies in the same marketplace that will be managed by other groups in your class. In *Mogul CEO Team*, the administrator processes the decisions that teams make regarding the operation of their company after collecting the decisions from all the competing teams. After processing, the teams will make a new set of decisions based on the results of those just processed. Each decision-round represents three months of operations (i.e., one quarter of a year). Your administrator will determine how many decision rounds you will play. The maximum number is 20. Chapter 1 will explain this decision-round process in more detail.

*Mogul CEO Solo* is the play-alone version of the *Mogul CEO Team*. The solo version places you in competition with companies managed by the computer rather than by other groups in your class. The computer uses logic developed by us to manage these companies. While your competitors will act rationally, they are not all-knowing, perfect competitors. With practice, you can successfully compete against these companies. In *Mogul CEO Solo* you process the decisions for the companies. This includes the decisions you entered for your company as well as those determined by the computer for your competitors.

Using *Mogul CEO Team* and *Solo*, you will:
- Decide your company mission, goals, policies, and strategies.
- Develop skills in planning, organizing, staffing, directing, and controlling a business.
- Make decisions in the areas of:
  1. Marketing, including market research and sales forecasts.
  2. Finance, including short-term and long-term loans.
  3. Manufacturing, including raw materials, production, scheduling, staffing, and inventory control.
- Have the opportunity to ask “what-if” questions by entering a sales estimate and seeing what the results of your decisions would be given this level of sales.
- See the results of your decisions and have an opportunity to correct mistakes in the following quarters of operation.

WHAT ARE THE COMPUTER SYSTEM REQUIREMENTS?

In order to use the *Mogul CEO* web programs, you will need a computer with one of the following browsers that is connected to the internet: Chrome, Firefox, Microsoft Edge, or Safari.

If you experience difficulty opening the program, you may have to turn off any “pop-up” blockers and configure your browser to accept cookies. If you need assistance with this, initiate a search for “How to enable cookies” on Google for your particular browser.
Finally, although optional, we advise that you use a printer so that you can generate printouts of your quarterly results.

**HOW DO MOGUL CEO TEAM AND SOLO WORK?**

You work on a personal computer, entering your decisions on five screens. You can review previous quarters’ decisions and results either on the screen or on printouts as you work.

After you finalize and submit your decisions for a quarter of *Mogul CEO Team* and *Mogul CEO Solo* operations, the decisions are processed either by your instructor (for *Mogul CEO Team*) or by you (for *Mogul CEO Solo*). The *Mogul CEO Team* and *Mogul CEO Solo* programs will determine the number of products each company sells and produce a series of operations, marketing, and financial reports for your company. The programs also rate the companies and rank them according to their performance sales revenue, income after tax, return on sales, return on equity, return on assets, and forecasting accuracy.

**ACKNOWLEDGMENTS**

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P. H. A.

J. A. K.
CHAPTER 1 – OVERVIEW

WHAT IS MOGUL CEO?

Mogul CEO: A Business Simulation offers students of management the opportunity to make decisions necessary to run a company, allowing you the opportunity to experience the concepts you will read and discuss in your management course. It will also allow you to demonstrate your understanding of business concepts in a competitive, but safe environment.

We hope it will give life to the topics you study in your management classes or read about in a management textbook, so that you can better see and understand the issues involved in formulating and implementing a management strategy. The chance to test your ideas is one of the best ways to learn about the field of management. Managers are inherently action oriented. Mogul CEO provides you with the opportunity to put what you have learned into action.

Mogul CEO is not planned for any specific product or industry. This vagueness is intentional and allows the game administrator to model different products. It also precludes the player’s decisions from being based on the known actions of any real company. Mogul CEO has been developed to afford you a planned, systematic learning experience in integrating knowledge acquired in your management course.

Since the teams themselves set the competitive environment, no optimum solution exists. Each play of the simulation is different, and the results will vary greatly depending on the background and level of the players. The game literally takes on their personalities.

Mogul CEO offers many opportunities and situations for applying numerous modern decision-making techniques. Students compete with each other in the Team Version, and with computer-managed companies in the Solo Version. Players of the simulation learn the importance of integrating operating schedules and reports in a logical manner in order to make sound decisions. Students learn rapidly that they can reduce their total decision-making time by keeping records and reports conscientiously. Through all this, you come to appreciate the benefit of proper use of an information system.

Mogul CEO is unique in that it represents all the functional areas of a business entity. Since production, marketing, human resources, and finance functions exist in the simulation; participants face the real problems of allocating resources. You learn very quickly that you must coordinate the functions and that they may not reach their predetermined goals if any function is maximized at the expense of the others.

Finally, the decisions in each period of the simulation are influenced by what has happened in the past and forecasts of what will happen in the future. Because of this, each team must learn to live with previous decisions, good or bad. The advisability of changing a plan even after you have committed yourself becomes apparent, especially when a series of bad decisions has been made. The fact that the players constantly face a deadline makes for a realistic decision-making environment.

Mogul CEO will allow you to put into practice the knowledge you have acquired in your other business studies. You will practice and develop your skills in problem solving, teamwork, and human relations. Mogul CEO will help you see the relationships among the different areas of a business, for example, how marketing and operating decisions affect the financial side of the business. You will make decisions under conditions of uncertainty, usually with lack of sufficient information. Through all this, we hope you will come to a better understanding of the challenges managers face as they make decisions.

Mogul CEO is a challenging exercise. You will probably discover what your weak areas are in your business studies. You may have to review your accounting book to reacquaint yourself with concepts and
to develop new skills. *Mogul CEO* should test your knowledge and skills, your motivation, determination and perseverance. We hope that this simulation gives you some of the fun and excitement of running a real business.

Remember you are in competition with the other *Mogul CEO* companies in the simulation. Hard analysis usually beats intuitive gamblers. Gambling is easier, but a sound strategy wins the simulation exercise. Success in the beginning of the game can quickly evaporate as your luck runs out. You may feel confused when you begin the simulation, but remember that your competitors face the same confusion. Learn the rules quickly. Good time management and teamwork should improve your chances of success.

Learn from your mistakes and capitalize on your successes. Analyze what went wrong. Deal with the facts, not just feelings. Intuition can provide possibilities for the cause(s) of your problems, but you need facts to support and confirm those feelings. You could end up learning more from what you do wrong than from what you do right.

**Mogul CEO Team Versus Mogul CEO Solo**

In *Mogul CEO Team*, you manage a company that competes against other companies run by students in your class. Each student-run company operates in the same marketplace and competes directly with other student-run companies. In *Mogul CEO Team*, the administrator processes decisions that students make regarding the operation of their companies after collecting decisions from all participants.

*Mogul CEO Solo* is a play-alone version of *Mogul CEO Team*. Rather than vying with other student-run companies, you compete against semi-intelligent companies managed by the computer. While these computer-run companies act rationally, they are not all-knowing, perfect competitors.

*Mogul CEO Team* and *Mogul CEO Solo* are programs that simulate many of the decisions involved in managing a small company. Your assignment is to manage the operations of your company, acting as a chief executive responsible for all aspects of the business. The decisions you make will include setting strategy for the company, determining the production and marketing of the products, financing the costs of the marketing and production operations, and the purchase of competitive information. Practicing with *Mogul CEO Team* or *Mogul CEO Solo* will sharpen your managerial skills. Managers are inherently action oriented. *Mogul CEO Team* and *Mogul CEO Solo* provide you with the opportunity to put what you have learned into action.

Depending on the objectives your administrator has for using this software, you may use one or both of the *Mogul CEO* programs. If your administrator chooses to use only *Mogul CEO Team*, you can still use this manual and software to work with *Mogul CEO Solo* on your own. Practicing with *Mogul CEO Solo* will sharpen your managerial skills for working with *Mogul CEO Team*.

Whichever simulation you use, your assignment is to manage the operations of this company, acting as a chief executive responsible for making decisions about all aspects of the business. The decisions you make will include production and marketing of the products, financing the costs of the marketing and production operations, and the purchase of competitive information.

You will compete with other companies selling similar products in your industry’s marketplace. The computer will process your decisions and those of the other companies and provide reports regarding how well each company performed. The *Mogul CEO* software will use your decisions and the decisions of your competitors to determine how many sales each company made during a quarter (i.e., three months) and to provide operations, marketing, and financial reports for your company. You will manage your
company for several quarters, analyzing the results of each quarter to help you make decisions for the next quarter’s operations.

What follows is a discussion of how the two Mogul CEO simulations work. As we discuss each of the three stages for working with the two programs, we will point out the similarities and the differences between Mogul CEO Team and Mogul CEO Solo.

**HOW THE MOGUL CEO TEAM AND MOGUL CEO SOLO SIMULATIONS WORK**

The Mogul CEO Team and Mogul CEO Solo programs contain mathematical formulas and sets of rules. These formulas and rules allow the program to simulate, or imitate, the outcomes that a business decision would have in the real world. So, for example, the Mogul CEO Team and Mogul CEO Solo programs can determine how a company’s sales would be affected by the price that it sets for its product when compared with the prices of its competitors’ products.

You will make approximately 40 decisions to manage each period of operation for your Mogul CEO Team or Mogul CEO Solo company. Each period of operation represents one quarter (i.e., three months) of a calendar year. You begin managing Mogul CEO operations in Quarter 1 and can continue to make decisions through Quarter 20. Just as you would if you were managing an actual business enterprise, your goal is to manage your Mogul CEO company as efficiently and effectively as possible. As you progress through each quarter of operation, you should work to improve your performance by analyzing your results and identifying your mistakes.

**MOGUL CEO’S THREE STAGES IN A DECISION-ROUND**

There are three stages involved in working with the Mogul CEO simulations. They are (1) the Forecasting Stage, (2) the Processing Stage, and (3) the Results Stage. In the Forecasting Stage, you enter decisions to test “what if” assumptions and then modify those decisions until you enter a preferred set of decisions you think are the best. In the Processing Stage, an administrator program assesses the decisions of all competitors to determine market share allocations for each company and the consequent profitability of each company based on its operational performance. In the Results Stage you respond to the results of the processing of your decisions, looking at your company’s reports to assess your actual versus forecasted performance. You then use your analysis in a new Forecasting Stage as you begin the next decision round.

The Forecasting and Results Stages are identical for both the Mogul CEO Team and Mogul CEO Solo programs. There are no differences between Mogul CEO Team and Mogul CEO Solo in the decisions you make or in how you enter those decisions. Nor are there any differences in any of the reports (e.g., Income Statement) that are generated by your decisions. The difference between the two versions of the simulations occurs in the Processing Stage. This is because of the differing nature of the competitors between the two simulations. In Mogul CEO Team you will compete against companies managed by other participants in the simulation exercise. In Mogul CEO Solo you will compete against computer-managed companies. Next, we will discuss each of these stages in detail.

**The Forecasting Stage**

In the Forecasting Stage, you will make decisions regarding (a) marketing (e.g., pricing and promotion of your products), (b) manufacturing (e.g., how many units to produce or whether to have your products manufactured by a sub-contractor), and (c) financing (e.g., requesting a loan to pay current bills). Once you have entered your decisions, you can look at forecasted reports for your company based on the decisions you just entered. You can view these forecasted reports using the Reports option on the Menu
bar. (We explain how to do this in Chapter 5.) After analyzing these reports, you can enter new decisions to try to improve your forecasted results. Entering new decisions will allow you to test “what-if” assumptions and then modify those decisions until you enter the set of decisions you think are the best. You can enter new decisions as often as you like before you choose to process your entries. There is no limit to the number of times you can enter new decisions. The last set of decisions that you enter and save will be used in the Processing Stage.

**The Processing Stage**

Once you are satisfied with the decisions you have entered, you will process those decisions and move to the next quarter of operation (e.g., from Quarter 1 to Quarter 2). Once your decisions for a quarter have been processed, you cannot alter your decisions or the results for that quarter. Your next set of decisions will be for the next quarter of operation and will be based on the results of the quarter of operation you just completed. For example, once your Quarter 1 decisions are processed, your next set of decisions will be for Quarter 2 regardless of how much you would like to change what you did in Quarter 1.

Having to live with the decisions you have made is a part of organizational life. For example, the marketing team for Wal-Mart may use a model to test the effect of varying pricing strategies (e.g., higher price, but fewer unit sales) on profitability for the company. They will likely test many variations to the price versus sales trade-off. However, once they make the decision on the price of a product and the advertisement has run in the local newspaper, it is impossible to change the price (and the consequent sales results) for that advertisement. All Wal-Mart can do is to make a pricing change in next week’s newspaper ad. So, once you choose to implement your decisions (i.e., process the quarter), you will also have to live with the consequences of those decisions for that quarter and make adjustments in your decisions for subsequent quarters.

As stated earlier, it is in the Processing Stage where *Mogul CEO Team* and *Mogul CEO Solo* operate differently. Because of this difference in who are your competitors in the two versions of the simulation, we will discuss how the Processing Stage works for each of the two versions of the simulation, separately. First we will discuss how decisions for *Mogul CEO Team* are processed. Then we will explain the method for processing decisions when using *Mogul CEO Solo*.

**Mogul CEO Team Processing.** In *Mogul CEO Team*, you are usually part of a group organized to manage your company in competition with the other groups in the class. Each group will manage a separate company that will compete with the other groups in the same marketplace. You are not in competition with the computer. The computer’s function is just to process the decisions of the companies quickly and to provide reports that show the results of those decisions. There can be from 2 to 25 companies competing in the marketplace. The number of competitors will depend on the number of people in the class. In *Mogul CEO Team*, the administrator processes the decisions that teams make regarding the operation of their company after collecting the decisions from all the competing teams.

As stated earlier, when forecasting, you can modify the decision you enter as often as you like. It is the final set of numbers that you entered and saved when you log off that become your decisions when processing a quarter. Your administrator will use the *Mogul CEO Team* Administrator program to read the decisions you and other teams have entered. Once all of the decisions for a company have been read into the administrator’s program, the administrator will process those decisions to determine how each team performed in that particular quarter.

Once your administrator has processed a quarter, you cannot alter either your decisions or the results for that quarter. Your next set of decisions will be for the next quarter of operation and will be based on the
results of the quarter of operation you just completed. For example, once your administrator has processed the decisions for Quarter 2, your next set of decisions will be for Quarter 3 regardless of how much you would like to change what you did in Quarter 2. You cannot turn back the clock in the simulation any more than you can in real life. When working with Mogul CEO Team, once the administrator has processed your decisions, you must move to the next quarter of operation.

Next, we will explain how to process the decisions for the Mogul CEO Solo simulation. Notice how changing your competition from other participant-managed companies to computer-managed companies simplifies the method of processing company decisions for a quarter of operation.

Mogul CEO Solo Processing. Mogul CEO Solo is the play-alone version of Mogul CEO. While other student teams are your competition in Mogul CEO Team, Mogul CEO Solo was designed so that your competition is five semi-intelligent, computer-managed companies operating in the marketplace. When working with Mogul CEO Solo you will always manage Company #1. While your competitors will act rationally, they are not all-knowing, perfect competitors. Whether these computer-managed competitors are tougher competitors than the participant-managed companies that you experience in Mogul CEO Team will vary depending on the participants managing the companies in a Mogul CEO Team industry. We designed Mogul CEO Solo so that you can establish a competitive advantage in the industry as you work with the program.

Having the computer manage the companies you compete with in Mogul CEO Solo simplifies the procedure for processing your decisions. Instead of the administrator processing the company decisions as he or she does in Mogul CEO Team, in Mogul CEO Solo the computer makes the decisions for the competing companies. Consequently, whenever you have completed your decisions for your company, you can process the decisions yourself for all the companies in the industry. Mogul CEO Solo eliminates the need for an administrator to collect and process the decisions of the companies operating in an industry. This allows you to play the game by yourself, at your own pace, not tied to anyone else’s schedule. Mogul CEO Solo allows you to work with the software without having to wait for decisions from the competing companies, nor wait for an administrator to process company decisions. In addition, in the Practice (not the Exam) version of Solo, if you perform poorly against the computer competitors, you can stop playing the current setup and start a new competition quickly and easily.

Once you are satisfied with the set of decisions you have entered, you can process those decisions and move to the next quarter (e.g., from Quarter 1 to Quarter 2). To do this, you will select the “Process Quarter” option under Game on the Menu bar. Processing the quarter commits you to the last set of decisions you entered. Once you have processed a quarter, you cannot alter your decisions or the results for that quarter. Your next set of decisions will be for the next quarter of operation and will be based on the results of the quarter of operation you just completed. For example, once you have processed the decisions for Quarter 1, your next set of decisions will be for Quarter 2 regardless of how much you would like to change what you did in Quarter 1.

The only exception to this is if you decide to use the Restart Game option in the Solo Practice version, under Industry on the Menu bar. Using this option erases all results for all previous quarters and returns you to your initial starting position at the beginning of Quarter 1. It does not move you back to the preceding quarter. Selecting this option will delete the current game data and you will begin again at Quarter 1 with a new setup. When you start a new game, Mogul CEO Solo resets the initial set of costs for the companies operating in the industry and creates a new industry-wide demand for the two products you are selling. The program also sets the weights for the performance criteria reported in the two performance reports. Finally, it sets the relative importance of the marketing variables for determining the market share captured as a result of marketing efforts by your company and your competitors. For
example, the influence of newspaper advertising in determining sales may have increased or decreased. Do not select this option unless you are ready to accept a completely new start up situation for Quarter 1.

The Results Stage

Once your decisions have been processed, the Mogul CEO programs will provide reports that show how well your company performed in competition with the competing companies. The programs will determine how many sales each company made based on their marketing efforts relative to the competition and will provide individual operations, marketing, and financial reports for each company.

You will use the results of the quarter just processed as the basis for your decisions for the next quarter of operation. For example, maybe in Quarter 1 your price for products was too high compared to your competitors. If this resulted in an increase of finished goods inventory for that product, your Quarter 2 operations will reflect the cost of carrying that extra inventory. It would be up to you to adjust your pricing of products in Quarter 2 to avoid repeating the problem in Quarter 3. In other words, you will use your analysis of the results of a quarter that was just processed to guide you as you make adjustments in your decisions and forecasts for the next quarter of operations. So once you have processed a quarter and analyzed the results, you will return to the Forecasting Stage and repeat the three-stage sequence.

HOW TO APPROACH THE SIMULATION

Management is a blend of art and science. This means the process of managing requires working with both the facts of the situation you are facing and with your intuition regarding how to succeed in that environment. Emphasizing one of these at the expense of the other makes you a less effective manager. Intuitive problem-solvers make decisions without considering all of the data available to them. They are more concerned with their “gut feelings” than with the realities they face. Ignoring these realities results in decisions that are ineffective in resolving the problems faced. By contrast, problem-solvers who rely completely on facts tend not to consider the aspects of a problem that cannot be easily reduced to numbers. Certainly, you cannot quantify everything that contributes to the resolution of a problem. This approach, then, also leaves out key components of a problem’s solution. Mogul CEO will give you a chance to develop and practice both kinds of managerial thinking. Although you must work with the detail of the numbers generated in your Mogul CEO reports, you must also get a feel for the total simulated business environment created by Mogul CEO. Learning to manage both of these dimensions of a problem will make you a more effective manager, not only of your Mogul CEO company, but also in subsequent business experiences you encounter.

Many college students dislike working in a group. They feel that it is not like work in “the real world.” In fact, groups working with a Mogul CEO Team company face almost exactly the same problems that a work group in any business organization has to face. Managers do much of their work in a business organization in teams. Working with a group of individuals requires learning how to manage competing individual ideas and egos while successfully accomplishing the group’s goal. This is a common experience in the modern organization. It is also a necessary element in successfully managing the Mogul CEO Team simulation. In business, as in the Mogul CEO Team simulation, each participant’s knowledge, motivation, determination, and time available to devote to the circumstances faced, affects the success of the enterprise. Learning to work together, cooperatively, as peers, is a critical ingredient for success in any business enterprise.

One of the keys to being successful in an enterprise is to learn how to use the talents of others. The Team version will provide you with a “platform” for practicing and developing your skills in this area. Remember, all the evidence shows that managers who try to do it all by themselves, limit the growth and
success of their business. So use Mogul CEO to polish your skills at leveraging the expertise of the management team, of which you are a member, to build a successful company.

PURPOSES OF MOGUL CEO TEAM AND SOLO

Working with Mogul CEO Team and Mogul CEO Solo will help you to:

- Experience issues involved in managing a business.
- Understand the importance of a business plan in guiding business decisions, including:
  - The importance of planning to develop a common vision and coordination between the marketing, operations, and financial areas of a business, and
  - The need for planning as you make tactical moves to react to changing conditions,
- Develop skills in planning, organizing, staffing, and controlling a business,
- Understand the relationships between financial statements such as the cash flow statement, the income statement, and the balance sheet, and their tie to the operational reports,
- Acquire experiences to aid your comprehension of issues presented in entrepreneurship courses,
- Understand the relationships between marketing, operations, and finance,
- Experience the dynamics of marketing against constantly changing competitor positions and the need for market research, and
- Understand the operational issues of production, inventory control, plant and work-force utilization, scheduling, and cost control of manufacturing operations.

TIPS ON SUCCEEDING WITH MOGUL CEO

The following are some tips to help you when you are working with Mogul CEO:

- **Manage your time efficiently.** Learning how to manage time is a primary concern for any manager. It affects success in any business. There will never be enough time to do all that you would wish to do. Determine what issues to focus on (set priorities). Staying focused on these issues (efficiency) will have a significant impact on the effectiveness of the decisions you make. Working with either Mogul CEO Team or Mogul CEO Solo gives you practice at managing this critical resource. Developing good time-management skills will increase your chances of success in your business career.

- **Manage your business; do not guess at your decisions.** You can either manage your company or guess when making decisions regarding the future. Managing the business involves having company goals, plus plans and strategies for meeting those goals. Use these goals, plans, and strategies to guide your decision making. Guessing leads to making decisions randomly and without any consistency over time. This may be easier and more fun in the short run. You may even initially get better results than your competition. However, in the long run, if you make your decisions by guessing, you will not be able to outperform your competition. This is because you will not understand what you did that was correct and what you need to change to improve your position in subsequent quarters. Nor will you be sensitive to changes that your competitors are making or to changes in your economic climate. Mogul CEO is the kind of project where the more effort you put into it, the more you get out of it.

- **Learn from your failures as well as your successes.** Managers must always deal with their own and others’ mistakes. When your decisions in Mogul CEO do not give you the results you planned for, or they are not satisfactory for the long-term success of your company, analyze the results to see what you should do differently next time. A successful manager learns how to capitalize on success, recover from mistakes, and move forward to improve the company’s position. You can often learn more from what you do wrong than from what you do right.
• Do not worry if you are confused at first. Participants are often confused when they begin working with the Mogul CEO programs. Remember, this is most likely a new form of learning experience for you. Working with a simulation requires applying your knowledge and skills to a business operation rather than listening to a lecture about the knowledge and skills needed to operate the business. It is a fundamental change to move from hearing to doing.

• Work with the Solo Practice version of Mogul CEO. After you register to use Mogul CEO (see Chapter 3) and log into the program, the Industry Central panel will appear (See Exhibit 1.1). If your instructor has not yet set up a Team game, you will only see the Solo icon.

Exhibit 1.1

The first time that you log into either the Team or Solo game, it will open a Welcome to Mogul CEO learning script tutorial. After watching the Welcome tutorial, click on the Solo Practice icon. It will open a screen like that shown in Exhibit 1.2. You can access additional learning scripts by clicking on the Help menu (see arrow in Exhibit 1.2). Watching the learning scripts will show you how to work with Mogul CEO to make decisions, view reports, and understand your status as you view the results of your decisions after they have been processed.

Exhibit 1.2
As with any new experience, it can be confusing and a bit overwhelming at first. However, after you make two or three sets of decisions, you should feel familiar with the rules of Mogul CEO and become more comfortable with learning through active application rather than passive listening. Your willingness to invest the effort to learn your new environment will have a significant impact on your ability to outperform your competitors.

This exercise also replicates what you will experience in the world of business. Managers face a constantly changing business environment. Their ability to understand quickly new business situations significantly affects their personal and organizational success. You have only to think about the changes in computer technology you have witnessed over the past few years to recognize the importance of being able to adjust to changes around you.

**HOW TO USE THIS MANUAL**

Read this manual thoroughly, but do not try to memorize it. Instead, read to get a sense of the business environment created by the simulation. Then, as you work with Mogul CEO, refer to the appropriate sections of the manual for specific information. You will notice that the simulation’s program contains much of the information supplied by this manual. For example, you can view the costs of operating the business and the timing sequences between events (i.e., time lags between when you make your decisions and when you will experience the results of these decisions) through the Menu bar in the program. We will explain how to do this later in this manual.
CHAPTER 2 – THE MOGUL CEO BUSINESS ENVIRONMENT

This chapter will provide a description of the *Mogul CEO* business environment. It will describe your company’s history leading up to you taking managerial control. It will also describe your company’s products and its manufacturing capacity, as well as the marketplace in which it operates.

In the *Mogul CEO* simulation, all companies start from an identical position. This means each company has the same amount of cash and other assets, as well as the same amount of debt and owners’ equity. In addition, each company also has the same inventory, plant capacity, number of production employees, and the same company history. After the first quarter, all of that will change as a consequence of the decisions you make. The *Mogul CEO* companies all manufacture the same kinds of products and compete against each other for customers. So, after the first quarter, companies will have different market shares and will be in different financial positions. Whether your company develops a stronger position relative to the other companies in your industry will depend on your ability to manage your company better than the competing companies.

This chapter describes your company’s history and the nature of its business. As you read, keep in mind that you are reading the description of the current position of the company you will manage, regardless of the company number.

If you are working with the *Mogul CEO Team* simulation, you will be assigned to Company 1, Company 2, Company 3, and so on up to the maximum number of companies operating in your industry. *When you are working with the *Mogul CEO Solo* simulation, you will always manage Company 1.*

THE Q1 SCENARIO

Along with several other people, you have been hired for a management position in a *Mogul CEO* company. Your general management task will be to allocate the company’s resources to the best competitive advantage. *Mogul CEO* competes head to head with other companies in the same industry, so competitors’ decisions affect your company’s performance.

*Mogul CEO*’s stockholders purchased the company and the new Board of Directors has been dissatisfied with the results of previous management’s policies and decisions. At the same time, your competitors’ stockholders have also grown dissatisfied with their companies’ management. In fact, a highly improbable thing has happened: all the companies have the same history, all are starting at the same point, and all sell the same product in the same market. So we can say that the history and present situation of the *Mogul CEO* company represents all the other companies in the industry.

YOUR COMPANY’S PRODUCTS

In the *Mogul CEO* simulations, you will operate a small manufacturing firm that produces two products — Product 1 and Product 2. The manufacturing process consists of forming raw materials into the finished consumer product. You will sell these products through retail markets to the general public. The two products are not substitutes for one another, nor are they complementary. This means that sales of one product do not affect sales of the other product.

Given the inherent durability of your products, the likelihood of immediate repeat purchases by a customer is small. This means if a customer has just purchased one of your products in Quarter 1, that customer is not likely to purchase another one in Quarter 2. Consequently, you should assume that sales
for a particular quarter will come from new customers that you have attracted to your product based on that quarter’s marketing efforts and product characteristics. You should not assume that customers will buy your product because of past experiences with that product. In addition, your company is too new to the market to expect brand satisfaction with one of your products, to boost the sales of your other product. In short, you have to earn each quarter’s sales that quarter. Brand loyalty is not part of your sales environment.

COMPANY HISTORY

C. W. Anderscott founded the Mogul CEO Company. The company produces and sells a small consumer product. For purposes of our discussion of the simulation, we won’t define it more specifically; but your instructor may choose to do so. Anderscott didn’t have enough money to manufacture products and establish a business by himself, so he approached several friends for the necessary financial backing. His friends were highly interested. They made a preliminary survey to determine the market forecast and an analysis of the necessary production methods and costs.

Anderscott and his investor partners formed a corporation. They decided that the company could choose between manufacturing products by purchasing the raw material components and assembling them to make the products or sub-contracting their production to others. Anderscott became the first president of Mogul CEO.

The company started operations in Quarter 0 with a manufacturing plant, warehouse, sales, and administrative offices. The products are assembled by a union-affiliated production force.

After one quarter of operation, Anderscott decided to devote his time to new inventions and turn over the company’s operations to a new management team. You are a member of that new team and will start managing the business at the beginning of Quarter 1, which covers the months of January through March. Each decision round represents one quarter of operation.

COMPANY POLICIES

Mogul CEO’s Board of Directors has established some important guidelines for your incoming management team:

- They do not want to expend resources to expand the company’s market beyond the current market. The directors think the demand for the product is expanding in this market, and they want you to focus your efforts there.

- The directors want to retain the company policy of selling its product by improving product image through enhancements in product quality. Sales efforts are to be supported by local and trade publications, as well as through advertising on the web. Rather than relying on wholesalers, retailers, and mail-order outlets for marketing, but the board believes that it would be more effective for the company’s own staff to work with retailers.

- Mogul CEO will rely on only one supplier of raw materials. The company has not been able to interest other suppliers because of technical problems and because the company doesn’t buy enough materials to make it worth the other potential suppliers’ time. The quality of the present supplier has been excellent; the price of the raw materials is reasonable, and order delivery has been timely. Although there have periodically been some shortages in the number of units delivered, the Board has decided this doesn’t happen often enough to initiate a search for a different supplier.

- The directors have agreed that the company’s financing arrangements will stay the same. The company was financed initially through subscriptions to shares of stock. Additional financing has
been done using long-term debt in the form of a mortgage issue and short-term notes. The company has good relationships with financial institutions, so it can obtain money using a short-term line of credit reasonably easily. The company has had high accounts receivable because the industry has lax cash-payment practices, with only 50 percent being collected in the quarter sold. Attempts to tighten up have had negative results. The board of directors has agreed that the company will have to follow current industry collection practices.

**YOU AND COMPANY MANAGEMENT**

Although the policies and rules set by the board of directors limit certain actions you can take, you and your management team still have considerable latitude to set the strategic direction for your company. Your management team’s decisions will be based on your own strategy for allocating resources. Here are the kinds of questions you’ll need to consider.

1. What strategy should you follow to gain an advantage over your competitors?
2. How much should you spend to obtain information about the future market, your competitors’ activities, and miscellaneous future competitive activities?
3. How much sales promotion should you have and how should it be allocated? How do these allocations relate to the sales price and quality you chose?
4. How many units should you produce, how much material should you order, how many employees should you hire, and where should you warehouse your products? Certainly, your decisions should include analyses of inventory levels.
5. How large a production capacity should you have, and where should it be located? How should you handle variable demand?

These questions should give you an idea of what your role will be. Certainly, they don’t indicate all the decisions you will need to make or how often you will need to make decisions. Some decisions, such as those regarding plant constructions and leasing decisions, you will make infrequently; you will make others, such as hiring decisions, each quarter. Chapter 5, “Making Your Decisions,” will go into more detail regarding these decisions.

**A WORD ABOUT MANAGING YOUR BUSINESS**

Your course in management will provide you with the tools to use in formulating and executing your game plan as well as in conducting industry and competitive analyses. In fact, many of the business courses you have had will be useful in mastering *Mogul CEO*.

You are operating a for-profit firm, so profitability will be used as one of the criteria for performance evaluation. Other measures that relate directly to profitability (e.g., ROS, ROE, ROA) may also be used. In addition, you will have performance criteria that are related to achieving profitability. For example, in the marketing areas if you are a volume-oriented firm one would expect to see market share as one of your performance criteria. In the production area, depending on the firm’s strategy, one might have efficiency as a criterion. Thus, your overall performance will be evaluated with reference to the overall goals and strategy of your firm. The game administrator will share with you the exact financial measures used to determine standings before you start the game.

You will receive information on your performance relative to your competition on a number of measures. These will include sales revenue, income after tax, return on sales, and forecasting accuracy. You will receive this information for the most recent quarter of operation, as well as the results you produce over the entire simulation.
Mogul CEO provides an opportunity for you to practice “thinking strategically.” It prompts you to diagnose situations from a strategic perspective. Mogul CEO also provides opportunities to conduct industry and competitive analyses and then to watch your analyses unfold in a real-time situation. Making decisions for short-run results without investigating the internal and external competitive environment will give you disastrous results. To win, your team must formulate a powerful long-term strategic plan and then execute that plan skillfully. You should try to learn from your mistakes; people who do so generally finish high in the standings. Focus on the long-run view.

Decisions about what kind of team and company you are going to be are critical to your long-term success. For example, are you going to be high-priced, high-margin, low-volume business or low-priced, low-margin, high-volume business? Are you going to finance internally using cash generated by business operations or externally with debt from lenders (i.e., mortgages from banks)? Are you going to take advantage of opportunities to buy in quantity, or are you going to strive to have minimum inventories in order to reduce cost? Your decisions on these and other strategic positioning questions will be critical to your company’s success.

**HOW THE SIMULATION PROCEEDS**

You and the other students in your class will be divided into management teams — thus you will be a member of a team of top executives managing your enterprise. You will be making decisions on overall growth, market orientation, operating philosophy, corporate objectives, and the like. Specifically, you will be making production, marketing, and financial decisions.

You will make decisions quarter-by-quarter, beginning with Quarter 1. (Each quarter lasts three months with Quarter 1 representing January 1st through March 31st.) You will begin where Quarter 0 ended; with Quarter 0 results.

Because many of the people who normally interact with a company will not be available during the game, the game administrator will fill their roles. The administrator will help you learn the game and how to manage your company. He or she may also act as a banker with whom to negotiate for money, as a board member, and so on.

Following each quarter’s decisions, you will receive production, marketing, and financial reports that reflect the results of your decisions, as well as any competitive information you might have ordered. You can view the results on your monitor, or you can print a hard copy of any or all of the results. You will then use these reports as a basis for your next quarter’s decisions.

Your instructor may grade each quarter’s results and/or your annual performance. Your instructor may also use cumulative performance on key criteria for grading purposes. Grades are based not only on your own efforts, but also on those of your entire team. This is a simulation of realistic business practices and an actual test of your managerial skills and ability to work in groups. In addition, your team’s grade will depend on the decisions of all the other teams; because they are your direct competitors, your company’s fortunes will rise and fall in relation to theirs.

Read this manual, but use it mainly as a reference; don’t try to memorize it. When you get stuck, a quick rereading may help you to get “unstuck” as you consider new possibilities or gain a new understanding of something that previously seemed insignificant. The more you put into this exercise, the more you will get out of it. Most important, have fun!
CHAPTER 3 – GETTING STARTED

Below we specify the computer requirements for using Mogul CEO. We also tell you how to login and register so that you can use the Mogul CEO software.

EQUIPMENT NEEDED

In order to use the Mogul CEO web programs, you will need a computer with one of the following browsers and you are connected to the internet: Chrome, Firefox, or Microsoft Edge, or Safari. If you experience difficulty opening the program, you may have to turn off any “pop-up” blockers and configure your browser to accept cookies. If you need assistance with this, initiate a search for “How to enable cookies” on Google for your browser. Finally, although optional, we advise that you use a printer so that you can generate printouts of your quarterly results.

PREPARING TO REGISTER

You need three items before you can register to use the Mogul CEO programs.

1. **Game Name.** This is the name that your instructor gave to the Mogul CEO game you will be playing. Typically, this will be the name of the course you will be taking, such as Mgmt 300.
2. **A Validation Code provided by your instructor.** The Validation Code will assign you to the proper Mogul CEO game for your course and instructor on the server’s database.
3. **Proof of purchase.** You can pay to access Mogul CEO in one of two ways.
   a. Use a credit card to pay online as part of the registration process.
   b. A valid Mogul CEO Passkey number from your instructor. This will happen only if your institution includes the registration fee for Mogul CEO in its tuition fees. You will need to do this prior to beginning the registration process. Passkeys are valid for only one registration, so make sure that the text that you purchase does not contain a used Passkey. If the Passkey number has been used previously, it is invalid. You will NOT be able to use it to register for using the Mogul CEO programs! Once you have registered, you can login and use the Mogul CEO programs as often as you like by using the username and password you established during the registration process.

REGISTERING TO USE MOGUL CEO

Once you (1) have a Validation Code from your instructor or (2) have a credit card ready for online purchase, you can begin the registration process. To register the Mogul CEO programs, follow these steps:

1. **Connect to the Internet.** If you are continuously connected to the Internet through a cable modem or DSL access, go to Step 2. If you use a dial-up modem to connect with the Internet, connect now.
2. **Open Chrome, Firefox, Microsoft Edge, or Safari Browser.** Open a browser by selecting Start, then Programs, then the desired browser or on click on that icon if you have it on your desktop or task bar.
3. **Open the Mogul CEO Web Site.** Enter the web for Mogul CEO in the address bar for your browser. The web address is [https://oaktreesim.com/MogulCEO/](https://oaktreesim.com/MogulCEO/). Once you do this, a screen like that shown in Exhibit 3.1 will appear on your monitor.
4. Select the “Create a student account” option (See arrow on the left in Exhibit 3.1). If you want directions for doing this, select the “Need Help” link (see arrow on the right in Exhibit 3.1) and then the “Student Getting Started” link.
5. Next, enter the required information as detailed in Exhibit 3.2. Then click on “Next”.

6. To register for the correct game, first select either the letter of the alphabet for your institution (e.g., “W” for University of Wisconsin”) or enter your instructor’s surname then click on "Find" (See Exhibit 3.3, below).

7. As shown in Exhibit 4, if you selected a letter of the alphabet you may have multiple institutions/instructors displayed (see left side of Exhibit 3.4). This is less likely if you entered your instructor's surname. Regardless of which option you use, if your instructor has more than one simulation game operating, make sure you select the correct one.
8. After selecting the correct game option, a pop-up box will appear asking you to enter a validation code (see Exhibit 3.5). Enter the validation code your instructor gave you and click on “Submit”. As noted in Exhibit 3.5, if you do not have the validation code, you need to contact your instructor before you can proceed any further.

9. After you click on the Submit button, a screen similar to that shown in Exhibit 3.6 will appear on your monitor. To complete your registration for Mogul CEO, you need to pay for your Mogul CEO account by either (a) entering a Passkey or (b) doing a direct purchase using PayPal.
   a. If your instructor gave you a Passkey, enter the Passkey number and select Enter (See left arrow in Exhibit 3.6.) Then go to Step 10, below.
   b. To purchase Mogul CEO using PayPal, click on the PayPal icon (See right arrow in Exhibit 3.6.) Then go to Step 11, below.
10. **Passkey Option.** If you used the Passkey option, a screen similar to one of those shown in Exhibit 3.7 will appear on your monitor.
   
a. If your instructor has not set up the Team game or is making the team assignments, you will see a screen like that on the left. Select the "Click here" link to return to web site for *Mogul CEO* (see Exhibit 3.10).
   
b. If the Team game is set up for you to choose your team, you will see a screen like that on the right. Click on the and select your team. After completing this step, you will return to the web site for *Mogul CEO* (see Exhibit 3.10).

11. **Paypal Option.** If you selected the Paypal option and you already have a PayPal account, enter your password and log in (see arrow in Exhibit 3.8). If you do not have a PayPal account, enter the credit/debit card information requested and then click on the continue button.
Next you will see a screen similar to that shown in Exhibit 3.9, confirming your purchase of Mogul CEO. Click on the link to return to the Mogul CEO web site. If the Team game is set up for you to choose your team, you will see a screen like that on the right in Exhibit 3.7, above.

12. You can now begin working with your Mogul CEO program by clicking on the icon for the game you wish to play, Mogul CEO Team or Solo (See Exhibit 3.10, below). If you have not yet been assigned a team, you will only see the Solo icon. From this time forward, you will only need to enter your username and password to reach the Industry Central screen.
You will use the Industry Central screen to switch between using the Team game and the Solo game. You can return to this screen at any time you are working with the Mogul CEO programs by selecting the Menu icon in the upper-right corner of your monitor after you have logged into either the Team or Solo game (see top arrow in Exhibit 3.11). Then select the Industry Central link (bottom arrow in Exhibit 3.11).

**Exhibit 3.11**

ACCOUNT MAINTENANCE

You will use this screen to make changes to your Micromatic account data. Do this by selecting the Account option when in Industry Central (see arrow in Exhibit 3.10). A screen like that shown in Exhibit 3.12 will appear on your monitor.

**Exhibit 3.12**

**Change Email Address.** This option allows you to change the email address from the one you initially entered when registering to use Micromatic to a new one. To do this, type in your new email address and select “save”.

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*If the image includes diagrams or screenshots, they are not transcribed as text.*
Change Password. You may decide, for security reasons, to change your company’s password. You can change your password as often as you wish, but be careful. It is usually advisable not to select as a password the name of a family member or a nickname that others are likely to guess. Also, frequent changes can lead to confusion. If you forget your password, you will not be able to access your files to make decisions for the upcoming quarter of operation. If this happens, see your instructor for help.

TROUBLESHOOTING

If you experience difficulty registering to use or opening the program,

- **Turn off any “pop-up” blockers and configure your browser to accept cookies.** If you need assistance with this, initiate a search for “How to enable cookies” on Google for your particular browser.
- **Make certain that you have started Mogul CEO directly from Microsoft Edge, Chrome, Firefox, or Safari.** Do not launch the program from inside another program environment such as BlackBoard.
- While students have reported successfully using Safari as a browser with Macs and iPads, it is not supported at this time.

USING THE STUDENT MANUAL WHILE ONLINE

When you access the Micromatic Student Manual online, rather than a printed version, you have the option to navigate quickly around the manual using the “Find” feature in the Adobe Reader menu bar (See arrow in Exhibit 3.13). If the Find feature isn't displayed, press CTRL + F or select the View option in the menu bar, then the Tools option, and then click on "Find".

Exhibit 3.13

| Find on page | Enter text to search |
CHAPTER 4 – WORKING WITH THE MOGUL CEO PROGRAMS

This chapter will detail how to work with the various features of the Mogul CEO programs. If you have not done so yet, go to the Mogul CEO web site (https://oaktreesim.com/MogulCEO/). After the Welcome screen opens, enter your username and password. A screen like that shown in Exhibit 4.1 will appear on your monitor. This is the Industry Central screen; your starting point for working with Mogul CEO.

Exhibit 4.1

INDUSTRY CENTRAL

The Industry Central link will bring you to the screen shown in Exhibit 4.1. From this screen you will select the program with which you wish to work: Team or Solo. If your program administrator has not yet created a Team or Solo Exam industry, you will see only the Solo Practice industry icon. Just click on the appropriate icon. Your instructor will set the Solo game to give you access to the Practice mode and/or the Exam mode. The only difference between these two modes of the Solo game is that the practice mode allows you to restart the program from Quarter 1 as many times as you desire. The exam mode allows only one pass through the quarters. There is no option to restart the game. We discussed these differences between the two versions of Mogul CEO in more detail back in Chapter 1.

Account

If you wish to make changes to your email address or password, select the Account option (see arrow in Exhibit 4.1). A screen like that shown in Exhibit 4.2 will appear on your monitor.

Exhibit 4.2

**Change Email Address.** This option allows you to change the email address from the one you initially entered when registering to use Mogul CEO to a new one. To do this, type in your new email address and select “save”.

**Change Password.** You may decide, for security reasons, to change your company’s password. You can change your password as often as you wish, but be careful. It is usually advisable not to select as a
password the name of a family member or a nickname that others are likely to guess. Also, frequent changes can lead to confusion. If you forget your password, you will not be able to access your files to make decisions for the upcoming quarter of operation. If this happens, see your instructor for help.

SCREENS VERSUS PANELS

Throughout this manual, you will read references to screens and panels. The primary distinction between the two is that panels are movable, while screens are not. Panels exist within screens and can be repositioned inside the boundaries of a screen. You can reposition a panel using the standard convention of positioning the mouse over the title bar of a panel, then right-clicking and holding the mouse key as you “grab” and drag a panel to a new position, then releasing the mouse key. In Mogul CEO, you will have decision panels and report panels. These panels are dynamically linked.

THE TEAM AND SOLO HOME PAGE

Once you select either the Team or Solo game program, the screen shown in Exhibit 4.3 will appear on your monitor. This is your “home base” for working with the Mogul CEO Team and Solo programs.

The Menu Bar

The Menu Bar allows you to quickly navigate around Micromatic. Selecting one of the Marketing, Operations, or Finance options lets you to access the decision and report panels for those functions of your business. The right side of the menu bar shows icons you will use to navigate Micromatic. After a quarter’s decisions are processed, the Notices bell (†) may be flashing red to indicate issues resulting from the prior quarter’s results. After you enter your planned decisions for the quarter, selecting the Refresh icon (refresh) displays issues for you to consider before you finalize your decisions. Select the trash can for a notice to remove it. The Dashboard icon (Dashboard) allows you to quickly open the Dashboard when it is covered by decision or report panels. Selecting the Help icon (Help) displays links to learning scripts, the student manual, and various tips for working with Micromatic. Finally, the Menu icon (Menu) provides links to a variety of key items you will use to manage your business. These are discussed in detail, below. Just below these icons, you will see the quarter of play that you are in currently.

Exhibit 4.3
The Mogul CEO Dashboard

The “map” at the top of the Dashboard is an interactive panel that visually shows the relationships between the decision and report panels (See Exhibit 4.3). Clicking on an item (e.g., Marketing decisions, Balance Sheet) opens that panel. You can also open the decision and report panels using the Mogul CEO Menu (See the right arrow in Exhibit 4.4) or from the three functions links above the Dashboard (See the left arrow in Exhibit 4.4). As will be discussed below, there are also icons that you can use when you are working with the Solo version of Mogul CEO.

Things To Do List. At the bottom of the Dashboard screen is a “Things To Do List” that poses a number of questions to guide you as you enter decisions and as you review them before they are processed. Click on the items to check them off as you complete them. These questions can help you avoid making decisions that are internally or externally inconsistent with the operation of your business.

Company at a Glance. There is also a Company at a Glance report at the bottom of the dashboard. This report displays data from your company’s reports and provides you with updates of these data as you enter your decisions for the current quarter. As the title implies, this data provides you with a snapshot of your company’s performance in a number of different areas. Take note that these numbers will change if your forecasted units sold for each product do not match the actual units sold after the quarter is processed. But, even given that the numbers will mostly likely change, they still provide you with your company’s forecasted performance and decisions you might want to revisit before the quarter is processed.

Performance Graphs. After Quarter 1 is processed, the Dashboard will change to provide some graphical displays of your performance (see Exhibit 4.4). The Dashboard opens with an Overall Performance graph. Selecting the advances to show overviews of your marketing, operations, and finance performance.

Exhibit 4.4

The Menu Icon

The Menu icon provides links to the functional decision and report panels, plus links to the Industry Performance Report that shows the performance of all companies operating in the industry and the Company Summary Report that shows a history of your company’s decisions and performance over the duration of the simulation (See right arrow in Exhibit 4.3). These two reports are discussed next.
Industry Performance Report and Company Summary Report. We discuss the details of each of these reports in detail in Chapter 6. To access these two reports, click on the appropriate link. Exhibit 4.5 shows an example of the Industry Performance Report. Also take notice that you can change the quarter number for the report you want to view from this screen (see arrow in Exhibit 4.5). Finally, selecting the “View in Excel” link will export the data into an Excel file, allowing you to work with the data to analyze results and to develop charts and graphs that can help you manage your company.

Quick Charts. Quick Charts allow you to quickly monitor the trend of a decision or report variable over the duration of the simulation. To do this, after selecting this link, click on the drop down (see arrow in Exhibit 4.6), then use the scroll bar to pick the variable you desire. It will then display a line graph like that shown on the right in Exhibit 4.6. You can also open a Quick Chart by clicking on a variable you want to analyze, like Mfg COGS. As discussed below (see Exhibit 4.11), doing this displays historical information on that variable. You can also click on the chart icon (chart icon) in the upper left corner to display the line chart for the variable.
Industry Central. Selecting this option will return you to the screen shown in Exhibit 4.1. Use this option to switch between using the Team game and the Solo game and to access the Account Maintenance menu where you can change your email address or password (see Exhibit 3.12).

Team Information. When you select this option, a panel like that shown in Exhibit 4.7 will appear on your monitor. If you like, enter a name and slogan for your team. There is no relationship between your company name or slogan and the success or failure of your company, so select any name that you desire. You can change your company name at any time during the simulation exercise. These entries are just for fun, to allow you to personalize your company.

Exhibit 4.7

Process Quarter (Available only for Mogul CEO Solo Practice and Solo Exam). This option is only available for the Solo version of Mogul CEO. (For the Team version, your instructor will process the quarter after all the companies have submitted their decisions for the quarter.) After making your forecasts, you can process your decisions for Quarter 1 by selecting the Process Quarter option. If you are satisfied with your decisions and want to proceed to the next quarter (e.g., Quarter 2), click on “Process” when the dialogue box appears on your monitor (see Exhibit 4.8). Once you select “Process,” the program will process Quarter 1’s decisions and move forward to Quarter 2.

Exhibit 4.8

After processing Quarter 1’s decisions, you can view or print your Actual Results and Standings by selecting the printer icon in the panel’s title bar to print just that panel. Alternatively, you can open all the decision and report panels you want printed and then select the Print Open Panels, as discussed below.

Restart Industry (Available only for Mogul CEO Solo Practice). Selecting this option will delete the current game data and begin at Quarter 1 with a new setup. When you start a new game, Mogul CEO Solo Practice creates a new industry-wide demand for the two products you are selling. It also sets the relative importance of the marketing variables for determining the market share captured as a result of marketing efforts by you and your competitors. Lastly, it sets the weights for the performance criteria reported in the two performance reports. Chapter 6 will discuss these factors in detail. For now, it is only important for you to recognize that each time you start a new game, things will be different from the game you previously were playing. For example, the costs of your raw materials may be higher (or lower), as may be the costs for advertising. And the influence of newspaper advertising in determining sales may have increased or decreased.
When you select this option, the dialogue box shown in Exhibit 4.9 will appear on your screen. Select “Yes” to start a new game, or “No” to keep on playing the existing game.

Exhibit 4.9

Restart Industry--Quarter 4
You have requested that the current industry be restarted back to Quarter 1.
Are you sure?

Yes
No

Print Open Panels. This option allows you to print all the Mogul CEO panels that are currently open on your monitor.

Product Perception Charts

The Product Radars show the position of your company and of the industry average on five marketing factors relative to the industry leader on that factor. An example of this is shown in the lower right corner of Exhibit 4.4, above. Two points are plotted on each spoke of the diagram – your company and the industry average. The end-point of each spoke is determined by the level of activity for the highest company in the industry. So, if the greatest number of ads by any company in the industry is 10, and your company runs 7 news ads, then your position on the spoke would be 0.7 (7/10). The same calculation is made to determine the position of the industry average. If your company is highest on a factor, your position is 1.0, the end-point of the spoke.

LEARNING SCRIPTS

After registering to use Mogul CEO, we recommend that you watch the learning scripts we have developed to speed up your understanding of the game. You can access the scripts via the Help icon. These learning scripts will help you to learn about making decisions, viewing reports, and understanding your status as you view the results of your decisions after they have been processed.

We strongly recommend that you do this before reading Chapter 5 – Making Decisions and Chapter 6 – Mogul CEO Reports. It will speed up your reading of those chapters.

ENTERING A DECISION

For both the Team version and the two Solo versions you will use three panels to enter your decisions regarding the operation of your business. These are the Marketing, Operations, and Finance decisions panels. You can access these panels through the Mogul CEO menu bar (see Exhibit 4.3). In addition to the three decision panels, there are seven panels that display reports showing the results of the decisions you made and the costs of running your company. As you enter your decisions, Mogul CEO automatically saves the new decisions you have entered. We will discuss each of the decision panels in detail in Chapter 5 and the report panels in Chapter 6.

Exhibit 4.10 shows you the Marketing Decisions panel. The Mogul CEO program will only allow you to make certain entries. This is to prevent you from making entry mistakes. If you attempt an invalid entry (e.g., enter a number that exceeds the decision limits or enter a letter where a number is required), the Mogul CEO program will indicate this by displaying an error message on the screen.
I have opened Marketing Report panel and positioned it side-by-side with the decision panel by mousing-over the title bar, left clicking, and then moving the panel. When you make an entry on a decision panel, it will automatically update all reports affected by that decision. So if I change my web spending, that new entry shows on the S&A Report and also changes the Total S&A costs on the Income statement.

- Note: You can quickly open the report(s) corresponding to a decision panel by selecting the Report tab in the upper left corner of the decision panel (see arrow in Exhibit 4.10).

### Exhibit 4.10

**Past Quarter Information.**

A useful feature on all decision and report panels is that besides showing the data for the current quarter, it also shows the corresponding data for the prior quarter. As you progress through the simulation, you can access all prior quarters by clicking on the prior quarter heading and selecting the desired quarter.

Notice that all companies in the industry start from the exact same position in Quarter 1. You can use this information to help you determine how you want to distinguish your company from your competition as you enter your Quarter 1 decisions. Before you make your Quarter 1 marketing decisions, we **strongly urge** that you watch the learning script for that.

### Cost and Historical Information.

You can access information regarding all items in both decision and report panels by clicking on its label (e.g., Newspaper). This will display a message like that shown in Exhibit 4.11. This provides you with the history for that item.
Correcting an Error

If you make a mistake or want to change a decision you have entered, simply move to the number you want to change using either the Tab key or the mouse. Type in your new decision and press the Tab key. This will replace the old number with your new number. You can always change any entries you have made up to the time the quarter’s decisions are processed. Once your decisions for a quarter have been processed, you can no longer change them.

HIDING PORTIONS OF A PANEL

On some reports there is a “Details Off button in the upper right corner (see Exhibit 4.12). To show all the items related to the report, click on the button. For example, doing this for the Cost of Goods Sold report will display all the costs that go into determining the cost per unit for each product. Seeing these detailed costs can help you, if you are having trouble determining why the cost per units are increasing. The purpose for being able to turn off some details of a report is to help simplify the data you manage.
VIEWING THE FORECASTED RESULTS OF YOUR DECISIONS

Once you have entered decisions, you can view the forecasted reports for your company. These are not your “actual” results, like those that you will receive after either your instructor has processed your decisions (Team version) or you have processed your decisions (Solo version). Instead, these reports are based on the sales forecast that you entered on the Marketing decisions screen. So, if you said, for example, that you will sell 6,000 units of Product 1 at a price of $50 each, you will see in the reports that you sold 6,000 units and made $300,000 in sales. However, when the Mogul CEO Team or Mogul CEO Solo program actually processes your decisions, your sales may look very different! For example, if you sell only 5,000 units because of aggressive pricing by your competitors, your sales revenues for Product 1 would be only $250,000. This reduction in sales revenues could move you from a profit to a loss for that quarter’s operation. In other words, your forecast reports are only as accurate as your sales forecasts. If you are overly optimistic in your sales forecasts, your reports will reflect this optimism and may show profits that will be nonexistent after you process your company’s decisions. The program will not warn you that your forecasts are inaccurate. It will only process your forecasts, not judge them. It is up to you to enter realistic sales forecasts.

You can view the reports to see what the effects of your planned decisions will be, assuming your forecast is accurate. You can look through the reports using any one of the methods for moving around the screens that was described earlier. Notice that before you process your decisions, the reports are labeled as “Forecast” reports. After your Mogul CEO Team and Mogul CEO Solo decisions have been processed, the reports will be labeled as “Actual” reports. The “Actual” reports are the ones that matter. These are the reports that will be used to determine your standing relative to your competition and that you will use to determine your decisions for your company’s next quarter of operation.

PROCESSING THE DECISIONS (AVAILABLE ONLY FOR MOGUL CEO SOLO).

After you have entered decisions, reviewed your anticipated performance by looking at forecasted results, and modified any decisions you wish, you are ready to process those decisions. We described the processing stage of working with Mogul CEO in Chapter 1. Instructions for processing Mogul CEO Solo are also provided earlier in this chapter. Processing the decisions will move you from the quarter in which you are now operating (e.g., Quarter 1) to the next quarter (e.g., Quarter 2). If you are using the Team version of the software, you will have to wait until your instructor processes the quarter’s decisions before you can view the Actual results of a quarter (discussed next).
VIEWING THE ACTUAL RESULTS OF QUARTERS THAT HAVE BEEN PROCESSED

As discussed earlier, when you load the Mogul CEO program, it automatically advances to the next quarter for which you must make decisions. So, for example, after your decisions for Quarter 5 have been processed, your Micromatic program will automatically set up for your company’s Quarter 6 decisions.

For both the Decision and Report panels, the data is displayed for two quarters. The quarter data displayed on the left shows your forecast for the current quarter (e.g., Quarter 6). The quarter data on the right displays the actual results for the prior quarter (e.g., Quarter 5). As the game progresses, you can display the data for earlier quarters by selecting the drop-down (see arrow in Exhibit 4.14).

SIMULTANEOUS USER LOGIN ON THE TEAM VERSION

It is possible for multiple members of a team to log into their company’s web site simultaneously when using the Team version of Mogul CEO. This allows team members to work together to enter decisions and view the company’s reports without having to be in the same physical location. When simultaneously logged on with your teammates, you will be notified of any changes one of them makes (See Exhibit 4.15). These Notices will disappear after about 5 to 10 seconds. After that, you can see them by clicking on the Notices bell. FYI, any entries a team member makes automatically replaces the decision you had previously entered. So makes sure that you monitor the Notices bell before logging off to see if a teammate has made changes you missed.
Exhibit 4.15

By default the latest decisions entered are the ones used when your instructor processes the quarter. So, make sure that the decisions of the last person entering decisions are those you want implemented. It is the responsibility of the team to ensure the decisions entered are “correct” at the time when the decisions are processed.

TROUBLE SHOOTING

The Mogul CEO program has undergone literally hundreds of hours of testing, both inside and outside the classroom. However, it is always wise for you to be prepared for “What do I do if ....?” or “What do I do now?” situations. If you should experience difficulties, read the following sections. If that does not resolve the difficulty, contact one of us at the addresses and numbers listed in the Preface.

Complete System Failure

The first thing to remember is that even the computer system suddenly fails to operate (frequently referred to as a “crash”), the data in your files will not be destroyed. In this worst-case scenario, restart the Mogul CEO program. Any entries you had saved earlier will still be in your database.

Mogul CEO Program Failure

If you experience difficulty using the program, first ensure that you have:

- **Turned off any “pop-up” blockers and configure your browser to accept cookies.** If you need assistance on this, search for “How to enable cookies” on Google for your particular browser.
- **Started Mogul CEO directly from Microsoft Edge, Google Chrome, Safari, or Firefox.** Do not launch the program from inside another program environment such as BlackBoard.

While highly improbable, if you have been exploring the limits of Mogul CEO and trying unique combinations of entries that result in an error message, exit the program and then restart it and enter any decisions that were not saved again. This will allow the Mogul CEO program to clear itself of the combination of entries that created the confusion and should permit you to make the entries you desire.
Program “Timeouts”

If you open the Mogul CEO program and let the program sit “idle” for a long period of time without moving from one screen to another or saving your decisions, the program will “time out”. If the program has “timed out”, the next time you make an entry or change a screen you will get a notice that you have been automatically logged out. We do this to protect from idle programs consuming operating space and slowing down server processing times. When this happens, simply restart the program.
CHAPTER 5 – MAKING YOUR DECISIONS

WATCH LEARNING SCRIPTS – MAKING MOGUL CEO DECISIONS

Before reading this chapter, we recommend that you watch the learning scripts on making decisions. To do this, select any of the game icons (Team, Solo Practice, or Solo Exam) as shown Exhibit 5.1. Then access the learning scripts through the Help menu. Watching the learning scripts on making decisions will speed up your understanding of this chapter.

Exhibit 5.1

PREPARING FOR DECISIONS: YOUR BUSINESS PLAN

Before making any decisions, you should develop a business plan for your company. This is an important first step to help you cohesively tie together all your decisions. Without this plan, various parts of your business could be working against each other. For example, you might develop a marketing plan designed for a high sales volume. At the same time, you may have developed a production plan with a goal of constraining production to avoid overtime and minimize costs. This could result in stimulating more demand for your products than you had available to sell. This would result in lost sales, which would mean lost income and unhappy customers. Developing a business plan can help you avoid parts of your company working toward conflicting goals. You will use your business plan to guide you in the marketing, operations, and financial decisions you have to make. Below is a quick overview of things to consider when developing a business plan. This is not meant to be a comprehensive discussion. You need to refer to your other management texts for that.

Developing a Business Plan

The first step of the planning process is to develop a mission statement for your company. Let us consider two very different company missions. One would be to meet the customer need for a premier-quality product that is relatively price inelastic. For customers buying this product, quality, not price, drives their decision-making process. The opposite focus would be to meet the customer need for a low-priced product where quality is less important. This does not mean that quality is unimportant, but is a secondary issue after price.

These two different company missions would result in two very different strategies. The high-quality focus would lead to a differentiation strategy, while the low-price focus would lead to a low-cost strategy. Regardless of which strategy you choose to pursue, you will face the same sets of decisions in marketing, operations, and finance. However, the nature of the decisions you make will be very different. For example, you will need to make marketing decisions about price, quality, and promotional support for the
sale of your product. A differentiation strategy will naturally lead to high investments in the quality of the product to support the marketing efforts. A low-price strategy will of necessity result in efforts to lower the company’s cost of operations so that the company can maintain profits even though its product’s price is much lower than that of companies with a differentiation strategy. This will make the cost of production a critical concern for companies pursuing the cost strategy. Efficient operations (e.g., plant utilization, worker utilization and productivity, and inventory control), while important to every company, will be a key to achieving success for those companies taking the low-price/low-cost route to the marketplace. Managing your financial requirements to minimize unnecessary financial charges will also be important to pursuers of a low-price strategy.

Keep your business plan in mind as you read about the different decisions you will make to manage your Mogul CEO company. Following your plan will help you avoid coming overly reactive to the actions of your competitors as you respond to the prior quarter’s results and make decisions for the current quarter.

OVERVIEW OF DECISIONS

You need to make and enter decisions in four main areas:

- Marketing
  These decisions include issues of product positioning (e.g., price, quality), product promotion and marketing research (e.g., deciding what data to gather about your competition).

- Operations Management
  Operations Management decisions involve whether to self-manufacture or sub-contract the production of your product, construction or sale of plant capacity, and spending on maintenance of equipment.

- Human Resource
  Human Resource decisions include the managing of your labor force (e.g., hiring, firing, laying off, and training of production workers).

- Finance
  These decisions include determining what form of financing (i.e., short-term loan and mortgages) to use to pay for the cost of running your business.

You will enter your decisions on three different screens. They are Marketing Decisions, Operating Decisions, and Finance Decisions. We will now discuss each of these in detail.

MARKETING DECISIONS

For each quarter, you will have a variety of marketing decisions to make. These decisions will include:

- the pricing and quality of your product,
- the advertising medium to use (i.e., newspaper, magazine, and the web) to create customer awareness of your product,
- the ad message communicated in your advertisements,
- your forecast of how many units you expect to sell for each product and
- the marketing research you want to purchase regarding your competitors.

You will enter each of your marketing decisions on the Marketing Decisions screen (see Exhibit 5.2). Next, we discuss each of these decisions.
Sales Price

- The Quarter 0 sales price was $64 for Product 1 and 47 for Product 2.
- The price of your product affects your share of the market in two ways: (1) your price relative to the prices set by your competitors and (2) any change in your price from the prior quarter. The change in price affects sales exponentially. So, the bigger the change in price, the bigger the impact of that change. Significant changes in price from one quarter to the next have a major impact on units sold.
- Prices much higher than the average price charged by other companies for the product can result in very low to no sales.
- Sales price can only be charged in integers.
- The allowed price range in Quarters 1, 2, and 3 is 42 – 87. After that it is 25 – 150.
- Click on Price label for historical information.

Product Quality

- Enter how much quality (in monetary terms) that you want to build into your product. The money spent on quality affects the customers’ perception of the value of your product – and your sales.
- The money spent on quality affects both market share and the cost of goods sold cost.
  - Product quality is entered as a marketing decision. It is a charge added to the cost of each unit sold that quarter (i.e. the quality is added at the point of sale). The charge is not added to the cost of those units in finished goods inventory. The quality expenditure on the Cost of Goods report equals the money spent on quality times the number of units sold that quarter.
- The maximum you can spend on quality in a quarter is $20.00.
- Click on Quality label for historical information.
Local Newspaper Advertising
- Has an impact on sales only in the quarter in which you purchase the ad.
- Affects only the product for which you purchase the ad.
- Maximum number of pages you can buy in a quarter per product for Quarters 1, 2, and 3 is 30. After that it is 99.
- Click on Newspaper label for current cost and historical information.

Magazine Ads
- Has an effect on sales in the quarter you purchase the ad and in the following quarter.
- Affects only the product for which you purchase the ad.
- Maximum number of pages you can buy in a quarter per product for Quarters 1, 2, and 3 is 15. After that it is 99.
- Click on Magazine label for current cost and historical information.

Web Marketing
- WEB marketing expenditures affect sales only in the quarter in which the money is spent.
- The money spent promoting your product on the WWW affects sales for both products.
- The maximum you can spend for Quarters 1, 2 and 3 is $40,000. After that it is $99,999.
- Click on Web label for historical information.

Ad Message
- You must choose from among three different advertising messages. You can choose to vary the message from product to product. However, you must use the same message for all forms of advertising (newspapers, trade publications, and web marketing) for a product. The advertising messages are:
  1. Price – emphasizes the low price of your product.
  2. Quality – extols the superior quality of your product.
  3. General – describes the benefits the consumer (or retailer) can expect to derive from using your product. Rather than focusing on price or quality the “general” message explains (or demonstrates) the value of using your product.
- The effectiveness of your advertising message is strongly influenced by how accurately it matches reality. For example, if you are advertising quality but your product has less quality than the products of most of your competitors, your message will be relatively ineffective. Your advertising will be most effective if you select a message that emphasizes an area in which you have a competitive advantage.

Sales Forecast
- Enter your forecast of how many units you expect to sell for each product. There is no guarantee that you will sell this amount. This is just your best estimate of what you will sell. Mogul CEO uses your sales plan to calculate the numbers in your forecasted reports. You will use these forecasted reports to help you make your quarterly decisions.

Factors to Consider When Forecasting Sales. The factors in the marketing mix (price, advertising, product, and product quality), plus price change and the accuracy of your advertising message, combine to determine what portion of the market each company will capture (i.e., its market share). How much you choose to spend on building quality into your products will be discussed later in this chapter under “Operations Decisions”. The combination of a product’s price and quality creates a value to the customer.
This value, combined with your promotional efforts (e.g., advertising), will influence sales of your product.

Base your sales forecasts estimate on (a) your decisions regarding these factors that determine market share, (b) your expectations of your competitors’ decisions on these factors, (c) the estimated industry sales potential for each of the products, and (d) other conditions that could influence sales potential. Some of these other conditions are moderately predictable (e.g., general economic conditions), others may be less predictable (e.g., the impact of political instability in a foreign country in which the firm operates), and yet others may be random and therefore impossible to predict (e.g., a hurricane that temporarily stops production). The message with respect to these conditions is that having contingency plans can be invaluable when things don’t work out as planned.

Enter a number between 0 and 99,999 for each product that is your best estimate of the sales volume you will achieve. This estimate is not a guarantee of what you will sell; only your estimate of that number. Your forecast is only as accurate as your estimate of your marketing efforts relative to your competitor’s marketing efforts and your estimate of overall market demand.

**Forecast Reports.** Once you enter the forecasts, the Mogul CEO program uses those numbers to generate forecast reports that show what would happen if you actually sold the amount that you forecasted. These forecast reports allow you to see what your operating costs and net income would be, whether you need to request a short-term loan, and what your overall picture would be for the quarter. You can also see forecasts for your material inventories and the cost of producing your products for that quarter. We discuss each of the reports created by Mogul CEO in Chapter 3.

**Take note.** These reports are forecast reports, and are labeled as forecasts on the report screens and on any printouts you generate. They are only as good as your estimate of the demand for your products. No guarantee exists that you will actually sell what you forecast. Actual sales are determined after you have processed your decisions for that quarter and moved on to the next quarter. At that time, the reports are labeled as “actual” reports to distinguish them from the forecasted reports. If you have misjudged your competitors’ actions or the general market demand for the two products, your forecasted sales can be considerably different from your actual sales. If this is the case, your forecasted results will not resemble your actual results. This means your ability to plan your actions and predict your results will be highly dependent upon your ability to forecast accurately.

**Remember two things about your sales forecasts.** One, the sales forecasts you enter have no effect on your actual sales in a quarter. The Mogul CEO program does not consider sales forecasts when determining actual sales of a product. It only considers the pricing, promotion, quality, and total market demand for a product when allocating sales. Two, Mogul CEO will not warn you if your sales forecasts are unrealistic. It is your responsibility to understand your marketplace, using both quantitative and intuitive skills, and make a reasoned determination of what will be your products’ sales volumes.

After looking at the forecasted reports, you can modify your decision inputs to maximize your company’s efficiency and performance. You can make as many modifications to your decision inputs as you wish. The decisions you have entered do not become permanent until you have processed them. You can test any number of possible decision sets to determine which will yield the best results for your company.

**Diminishing Returns.** As with almost any product, the advertising of your Mogul CEO products can reach a point of diminishing return. As you raise your levels of advertising, more potential customers become aware of your products. Unfortunately, awareness does not guarantee a purchase. At some point, additional expenditures on advertising will result in smaller increases in the number of sales for a product.
Determining when you have reached this point is a problem all companies face and will be a continual challenge for your company.

**Substitute Products.** The issue of diminishing returns does not mean you can avoid promoting your products. If you spend too little on advertising, your efforts may result in few sales because your promotional efforts are overshadowed by your competitors’ promotional efforts. Further, if companies in your industry spend little on promotion of the Mogul CEO products, or price them too high, your potential customers will purchase substitute products sold by companies outside your Mogul CEO industry. This would mean neither you nor your Mogul CEO competitors would sell the sales potential forecasted for the industry. This can also occur if the whole industry invests too little in product quality. Your task then is to design a marketing program that is both effective and efficient. For a marketing program to be successful, it must generate the demand you desire at the lowest possible cost.

**Marketing Research Decisions**

You also can make marketing research decisions each quarter. An example of the Marketing Research Report is shown in Appendix A.

- Click on the box (℞) for the research information desired.
- You have two options for purchasing information on future sales potential.
  - **Average Expected Demand for the Next 4 Quarters** provides the *average* forecasted demand per company for each of the next 4 quarters. This is an *estimate* of sales demand for the industry; it is *not* a guarantee of what sales will be for your company.
  - The second research item on future sales potential allows you to **buy information for a single quarter** that you select. If you select this option, you must also **enter the quarter number for which you desire information**.
  - To determine the industry sales potential multiply the sales potential per firm for each product by the number of firms in the industry.
  - For all **other marketing research** options you select, you will receive information for all companies in the industry.
  - The **cost of the research** option you select is shown by clicking on the label for that item. That is the total cost for the item selected, regardless of the number of companies operating in the industry.

**Future Sales Potential**

The owners of your company purchased potential market demand for Quarter 1 in Quarter 0. Quarter 1 demand forecasts are 6,000 units for Product 1 and 5,100 units for Product 2. **These numbers do not represent the guaranteed sales volume for your company in Quarter 1. They represent the average demand per company for the industry.** Depending on your marketing effort relative to that of your competitors, you will sell above or below these levels. The numbers indicate how much each company would sell if the total market potential were divided equally among all companies in your industry. You can determine the total sales potential for a product by multiplying the number given in the research report by the number of companies in your industry. For example, if the number of companies is 16, then the total demand for Product 1 in Quarter 1 will be 96,000 units (i.e., 6,000 units * 16 companies). If one of your goals is to achieve a 10% share of the market for Product 1, your sales goal for Product 1 in Quarter 1 would be 9,600 units (96,000 * .10 = 9,600). This goal is greater than the average demand of 6,000 shown in the report, so to sell this amount requires a marketing effort greater than that of at least some of your competitors. Put simply, the more you want to sell above the average demand for a product, the greater effort you will have to put in to marketing your product relative to your competition. Remember, at some point the cost of this marketing effort will outweigh the benefits that come from the increased sales volume.
Quarter 1 represents the first three quarters of the calendar year (January - March). Each of the subsequent quarters coincide with the remaining months of the year (e.g., Quarter 2 is April – June). Quarter 5 begins the yearly cycle again, in the subsequent year.

**OPERATIONS DECISIONS**

For each quarter, you will have a variety of operations decisions to make. These decisions will include:

- Ordering of raw materials
- Production workers (i.e., hire, fire, lay off, and training)
- Production of finished goods (i.e., subcontract production, in-house production, product quality)

You will enter each of your operations decisions on the Operations decisions screen (see Exhibit 5.3). Next, we discuss each of these decisions.

![Exhibit 5.3](image)

**Raw Material Ordered (Units)**

- Click on the label for current cost and historical information.
- Your company’s products require one unit of the correct raw material for each unit of finished good produced and available for sale. Product 1 requires one kind of raw material and Product 2 another. Enter the number of raw material units you wish to purchase for each product.
- **Purchase costs** in Quarter 0 costs were $8.00 for Product 1 and $12.00 for Product 2.
- Raw Materials ordered in a quarter are delivered in the following quarter. For example, raw materials purchased in Quarter 2 will be delivered in Quarter 3.
- Raw Material Order Shortages can occur. A 7% probability exists that only 80% of the raw material order will be delivered. The remaining 20% will never arrive.
- Raw Materials are paid for in the quarter in which they are received; i.e., COD.
- You will receive a **quantity discount** if you order 15,000 units or more of a particular raw material. The discount price is $7.00 for Product 1 and $10.50 for Product 2. The current discounts are shown on the Material and Cost Report.
- **Price breaks** are based on purchases by product, not by the total for both products. You cannot receive the discount by combining the orders for both products.
Carrying cost for the beginning units in raw material inventory are $1.00 per unit for Product 1 and $2.00 for Product 2.

Subcontract Finished Goods

- Click on the label for current cost and historical information.
- You can subcontract the production of your product with a local manufacturer.
- Units purchased from a subcontractor are available for sale in the same quarter as purchased.
- The cost of subcontracted units is shown on the Material and Inventory Costs screen. Default costs are $43.00 per unit for Product 1 and $46 per unit for Product 2.
- The subcontract cost shown does **not** include money spent to improve the quality of the product.
- Availability issues can occur which may cause the subcontractor to be unable to provide all of the requested units. There is a chance that the subcontractor will only deliver 80% of the units you ordered.

Finished Goods Production

- How much you can produce is limited by the number of workers available, plant capacity, and the number of units of raw material available. Enter the number of units you wish to produce during the quarter, subject to the limitations described.
- You are not required to produce at plant capacity every quarter. Nor are you required to continue to produce both products. However, you will still incur the costs associated with the plant that you own even if it is not in use. These costs are the depreciation charges that reflect the aging of your plant and equipment. These costs are assigned to your cost of producing the two products in the same proportion that the two products are utilizing the plant. For example, if you produced 4,000 units of Product 1 and 6,000 units of Product 2, then 40% (4,000/[4,000 + 6,000]) of the plant’s depreciation costs would be assigned to Product 1. You can see your quarterly depreciation charges on your company’s Cost of Goods Sold Report. We will discuss this report in some detail in Chapter 6. You will have to decide what production volume is best for your company.

Worker Force

- Click on the label for current cost and historical information.
- **Hire Workers**
  - The cost to hire a new worker is $2,000. You need to hire workers one quarter in advance of the first day of work, e.g., if you hire workers in Quarter 2, they will be available in Quarter 3.
  - Wages are $4,000 per worker per quarter
- **Discharge Workers**
  - Fired workers leave at the beginning of the quarter and before turnover is calculated. Initially, there is no charge to fire a worker. Check the Operations Costs report for current costs.
- **Lay off workers**
  -Workers laid off leave at the beginning of the quarter and return automatically the next quarter. Lay off cost per workers = $500 in Quarter 0.
- **Training**
  - Training expenditures is money spent in an effort to improve the productivity of your production workers. **It is total spending on training, not spending per worker, which affects worker productivity. It is training for all workers, not just for the workers hired in the current quarter.**
  - Expenditures made this quarter influence worker productivity in the following quarter. There is no guarantee that money spent in this area will translate into productivity increases. Nor is there a guarantee of how much worker productivity will increase, if an increase does occur. All that can be said for certain is that little or no investment in training will cause worker productivity to decline and that the larger your investment in training, the greater the likelihood that the...
productivity of your workers will increase. Also, it is the combination of expenditures on training and plant maintenance (discussed below) that affects worker productivity. Spending little to no money on one will undermine the effect of the money spent on the other.

Information on the Workforce

- **Worker turnover** is computed based upon the number of workers for the two products. Normal turnover is 10%. There is a 7% probability that you'll lose one additional worker and a 3% probability that you'll lose two additional workers.

- **Manufacturing Costs**
  - Total manufacturing costs are direct material, direct labor, overhead costs, plus depreciation.
  - Overhead costs = 50% of the total labor cost.

- **Overtime** is 200% of the regular cost of producing the product.
  - The Mogul CEO program automatically calculates when your workers must work overtime to produce the volume you chose. Your company will be assessed overtime charges whenever you either (a) exceed 120% of your plant’s capacity or (b) exceed the output your workers can produce at their current productivity levels. This means that even if you have enough capacity to produce 12,000 units, if your workers are capable of producing only 10,000 units at their current productivity rates, you will receive an overtime charge for all production above 10,000 units. The reverse of this also holds true. Your workers may be capable of producing 10,000 units, but if your current plant capacity is only 8,000 units, you will be assessed an overtime charge for all units produced above 9,600 units (8,000 * 120%). Notice that if you have enough workers, you can produce 20% above your plant’s capacity without incurring overtime charges.
  - To calculate your overtime rate, you must first calculate the average labor cost per unit for each product. Then determine the average of those two averages.
    - **For example: of how to calculate the cost of producing at overtime in Quarter 1.**
    - **Given:**
      * Initial salary per worker per quarter is $4,000
      * Initial worker productivity is 250 units for Product 1
      * Initial worker productivity is 300 units for Product 2
    - **Then:**
      * Average labor cost of Product 1 = $4000/250 = $16.00/unit
      * Average labor cost of Product 2 = $4000/300 = $13.33/unit
      * Average labor cost of Products 1 and 2 = ($16.00 + 13.33)/2 = $14.66/unit
    - Since overtime is charged at double normal rates, the cost per unit of overtime production is (14.66 * 2) or $29.32 per unit. Therefore, if you choose to produce 1,000 units at overtime, you will be assessed an overtime charge of $29,320 for those units.

Plant Capacity

- Background information for making plant decisions.
  - You currently own plant capacity that can produce 11,100 units per quarter. This capacity will last through Q20.
  - You must have a minimum of 5000 units of capacity to operate.
  - Depreciation is computed straight line over 20 quarters.
  - Money spent on plant maintenance affects the cost of manufacturing your product. Insufficient spending on plant maintenance will affect worker productivity (discussed below).
  - There is a fixed administrative charge for operating your plant. The default cost is $12,000.
For each quarter, you will have to make a variety of decisions related to your plant facilities. These decisions will include:

- Spending on plant maintenance, which affects worker productivity.
- Increasing your production capacity (i.e., build plant capacity).
- Decreasing your production capacity (i.e., sell plant capacity).

You will enter each of your plant decisions on the Plant Decisions screen (see Exhibit 5.5). Next, we discuss each of these decisions.

**Maintenance.**

- Enter the amount of money you wish to spend on plant maintenance.  
  - Money spent on plant maintenance affects the cost of manufacturing your product. How much you spend can cause worker productivity to either increase or decrease as it affects their working conditions and consequently their ability to efficiently manufacture your product.
  - There is no guarantee that a cost decrease will occur. However, the larger your investment in plant maintenance, the greater the likelihood for a decrease. However, there is a point of diminishing returns where you will gain no additional benefit.
  - There is no way to determine how much you need to spend to yield a cost decrease, except through experience.
  - It is the combination of expenditures on plant maintenance and training (discussed above) that effects worker productivity. Spending little to no money on one will undermine the effect of the money spent on the other.

**Build Plant Units.**

- Enter the number of units of production capacity you desire.
  - Quarter 0 cost was $45,000 per 1,000 units. Check Plant Decisions panel for current cost.
  - The minimum purchase is 1,000 units. Check Plant Decisions panel for current minimum.
  - Payment terms are 20% down, 80% the next quarter.
  - There is a two quarter delay from when plant capacity is purchased and when it is ready for producing product. For example, if purchased in Quarter 2, the plant is in construction in Quarter 3, and operational in Quarter 4.

**Sell Plant Units**

- Enter the number of units of production capacity you wish to sell.
  - You must sell a minimum of 1000 units.
  - You must sell the oldest plant capacity first.
  - You can use the units sold in the current quarter.
  - You lose the capacity at the beginning of the following quarter.
  - You will be paid the book value of the plant sold (Purchase price less accumulated depreciation).
  - You will receive the cash from the sale of the plant in the following quarter.

**FINANCE DECISIONS**

For each quarter, you will have a variety of finance decisions to make. These decisions will include:

- Short-term loans
- Short-term investment
- Mortgages

You will enter each of your finance decisions on the Finance decisions screen (see Exhibit 5.4). Below the exhibit, we discuss each of these decisions.
Exhibit 5.4

The interest rate, line of credit, etc. can change over the duration of the simulation exercise. So check the Finance Decisions panel for the current rate.

**Loan Request**

- **Request.** Enter the amount needed to ensure a positive cash flow on the Cash Flow Statement.
  - The base interest rate is 10% adjusted for your debt asset ratio at the beginning of the quarter.
  - You receive the loan in the quarter requested.
    - However, if the loan requested is insufficient to fully cover your cash flow needs when the quarter is processed, your loan request is cancelled and you will receive an emergency loan to bring your cash balance up to zero. This means that if you request a short-term loan for $200,000 but need $200,001, your loan request is denied and you will incur an emergency loan for the full $200,001 not for the $1 you were short in your request. The interest rate on this emergency loan is double the current interest rate that is displayed on the Finance Decisions panel, up to a maximum rate of 30%.
  - The maximum amount you can request is displayed as your **line of credit** on the financial decisions screen. In Quarter 1, your line of credit is $400,000.
  - You are required to repay what you borrowed in the quarter following the one in which it was requested. For example, if you borrow $100,000 in Quarter 2, you will pay the full $100,000 in Quarter 3. You will see this repayment in your Cash Flow Statement.

**Investment Deposit**

- Are paid in the quarter in which they are made. Payment is shown on the Cash Flow Statement.
- Interest income on deposits and existing investments is paid in the following quarter.
- Current investment rate is 5%.

**Investment Withdrawal**

- Are received in the quarter requested.

**Mortgage Requested**

- Are received in the quarter requested.
- All companies start with one mortgage.
- Current new mortgage interest rate is 9%.
- Interest payment on new mortgages starts the quarter after you receive the mortgage and continues until the mortgage is paid off.
- Mortgage repayment is paid over the 20 quarters following the issuance of the mortgage.
- You can make an extra payment on your first mortgage to reduce its outstanding balance
  - There is a surcharge of 3% on additional (i.e., early) mortgage payments.
- The maximum number of mortgages outstanding at any one time is two (2).
  - To get an additional mortgage, you must first retire the first (i.e., oldest) mortgage. Do this by entering the amount outstanding for Mortgage #1 shown on the Balance Sheet.
  - You can include the money needed to retire the first mortgage with your new mortgage request, if you have insufficient funds from other sources to make the early payment.
  - If the extra payment for the first mortgage is insufficient to pay it off early, your new mortgage request will be denied. The program does not allow you to overpay your extra payment.

SOME DECISION GUIDELINES

Some of the most common problems participants face in Mogul CEO is that they simply don’t pay attention to what they are doing or examine closely what is going on in their industry. For example, they may forget to hire to replace workers lost to turnover or purchase market research information but then not examine it. Here are some reminders as you compete in Mogul CEO.

1. Do your decisions reflect your strategy? Are they consistent with each other? (Do your sales forecasts reflect the production decisions you made? Are you forecasting lost sales?)
2. Have you analyzed your competitors’ performances and strategies?
3. Do you have confidence in your sales forecasts? Do your forecasts reflect (a) your present sales level, (b) expected changes in sales due to anticipated actions by your competitors and trends in industry demand, (c) changes in your marketing mix for the quarter, and (d) your historical forecasting accuracy? Remember: Wishing for high sales does not make them happen.
4. Before submitting your decision for a quarter, did you examine your forecasted income statement? Does it show you making the profits you have planned? If not, why submit the decision? What do you have to do to achieve your desired profit level? Remember: The accuracy of your forecasted income statement depends on the accuracy of the sales forecasts you submit!
5. Do you have the information you need to make intelligent decisions? What reports hold this information?
6. Are you actually doing what you intend to do? (Do you really have the lowest price in the industry or are your decisions based on ill-founded assumptions?)
7. What marketing tools seem to be most effective in your industry? Have you carefully considered how much you’re spending on each of your promotion tools? (Is your spending insufficient and/or ineffective? Are you on past the point of diminishing returns and throwing money away?)
8. Are your production costs under control? Have you done everything you can to minimize these costs? What is the quarterly trend of your unit costs as shown on the Cost of Production Report?
9. Is your Gross Profit insufficient to cover your other costs and still achieve a profit for the quarter? (If it is less than 25% of sales, it will be difficult to achieve a profit.)
10. Did you order enough raw material for each product for the quarter after this one? Remember, for the current quarter (say Q3) you can only produce the raw material inventory on hand. The quantity you order on your Q3 decision form is not received until Q4. Thus, in Q3 you must forecast ahead and anticipate how much you plan to produce in Q4. Stocking out may be more expensive than the cost of carrying inventory into next period.
11. Did you check your cash flow statement and request a large enough loan so that you don’t have to pay high emergency loan interest rates?
12. Did you check to be certain you aren’t submitting some of last quarter’s decisions unintentionally?

In Chapter 6, we will discuss the reports generated by the decisions you make that you will use to manage your business.
CHAPTER 6 – MOGUL CEO REPORTS

After you process each set of decisions, you will receive a number of reports that will show, in detail, the results of those decisions. You can view these reports by selecting the Menu icon (See the arrow on the right in Exhibit 6.1, below) and then clicking on the desired report. When you open the Mogul CEO program, it automatically opens the next quarter’s forecasted decision screens and associated reports. The decisions showing are those from the quarter just processed. From here, you can enter new decisions as you adjust to the results of the prior quarter. You will also be able to view forecast reports that show the results of your decisions IF you sell the number of units that you forecast for the next quarter. (See discussion of forecast reports in Chapter 2.)

Exhibit 6.1

We will provide a description of each Mogul CEO report that you can access, using hypothetical data for Quarter 1 as an example. The reports are listed below.

- Marketing Report
- Operations Report
- Cost of Goods Sold
- Balance sheet
- Cash flow statement
- Income statement
- Financial Ratios
- Industry Performance
- Company Summary
MARKETING REPORT

Exhibit 6.2

This report shows the costs of promoting and selling the Mogul CEO product to prospective customers resulting from the decisions you entered on the Marketing Decisions panel. This includes the costs associated with the various forms of advertising available to your company. To see the per unit cost for a variable (e.g., Newspaper), switch to the Marketing Decisions panel. When you click on the name for that variable, a dialog box will open showing the cost and other relevant information.

This report also shows the costs of the decisions you made to purchase marketing research (see arrow in Exhibit 6.2), the fixed administrative overhead cost for operating your business, and any fines or refunds assigned to your company by your instructor.

Market Research

The Marketing Research Report displays the competitive information you purchased with your Marketing Research Decisions panel. Exhibit 6.3 shows an example of this report. You will receive any market research reports you purchase after the quarter for which they were purchased is processed. So the example below shows competitive information that was purchased in Quarter 1 that can be seen in Quarter 2. As the simulation exercise progresses, if you want to see purchases that you made in earlier quarters, say Quarter 3 information when you are currently in Quarter 7, click on the prior quarter heading (see arrow in Exhibit 6.3). Then select the desired quarter from the drop-down list that will appear.
View Report in Excel. Selecting the Excel Report for the company’s Market Research Report provides both the market research data that you purchased plus a graphical display of that data (See Exhibit 6.4). Enter the quarter and product number that you wish to view in the upper left corner (see arrow in Exhibit 6.4). Besides the graphical displays provided, exporting the data to Excel also allows you to develop your own graphical displays of the data you purchased.
**OPERATIONS REPORT**

**Details On/Off Option**

Except for the Marketing Report, when you open a report it will show a “Details Off” button in the upper right corner. To show all the items related to the report, click on the button. Exhibit 6.5 shows a side-by-side comparison for the Operations Report. Displaying a report in the “Details Off” format provides you with the primary data you need to follow and helps avoid “data overload”. Switching to “Details On” allows you to drill-down to identify inefficiencies that are causing your costs to increase.

**Finished Goods**

The Finished Goods section of the Operations Report (Exhibit 6.5) shows the finished goods for each product in terms of inventory left from last quarter, units you decided to produce this quarter, and units you received from a sub-contractor based on an order you placed last quarter.

This report also shows the units available for sale for each product, the units you sold of each product and any ending inventories or stock outs you incurred. *Take note: When you are in a forecast quarter (i.e., the current quarter of operations), the Units Sold line is the number of units you entered as your forecast. There is no guarantee that you will sell what you forecast.* You will see your actual units sold only after the quarter has been processed.

Finally, the report shows the cost of maintaining finished products in inventory.

**Workforce and Plant**

The Workforce and Plant Report section shows the number of production workers you have on staff, how much each worker can produce of each product in that quarter, and how many workers you need to meet the production volume decision you entered on the Operations Decisions panel. (See Exhibit 6.5). If the total number of workers needed exceeds the total available, you will incur an overtime charge.

This report also shows the production capacity you have available that quarter. It also shows if you have entered a decision to build more capacity and if you have plant under construction that will be available for production next quarter.

**Raw Material**

The Raw Material Report (Exhibit 6.5) uses Product 1 as an example. It shows the number of units of raw material for available from last quarter’s operations. The second line of the report shows how many units of raw materials were received based on the number you ordered in the prior quarter. This means the number of units showing as available is the maximum number of units you can produce this quarter, because any units purchased in a quarter (e.g., Q3) are not received until the following quarter (e.g., Q4). The Usage line shows the number of units you pulled from inventory based upon the number you decided to produce this quarter. This report also shows the total cost, per unit cost, and inventory cost of maintaining an inventory of raw materials for production of your products. To view the costs for a particular product, select the Materials and Inventory Cost panel.
The Cost of Goods Sold Report (Exhibit 6.6) provides key information on how much it cost you to produce a finished product. This is often referred to as Manufacturing Cost of Goods Sold or Mfg COGS. This includes just the production costs, not the cost of marketing the product or financing the business. This report provides you with information regarding:

- The cost of raw materials used in the production process.
- The cost of labor used to convert raw material into finished goods.
- Overhead costs associated with running the manufacturing operations.
- The cost of improvements in quality made to the product.
- Depreciation charges made to reflect the aging of your plant and equipment.

The top of the report shows the costs by product and the total cost for the various components of your production costs. The bottom of the report shows the cost of production on a per unit basis. The last line of the report shows the per unit cost of each item you sold after averaging this quarter’s production costs with the cost of items in inventory from prior quarter operations. This is done as a simple average cost of items in finished goods inventory, not on a FIFO or LIFO basis.
FINANCE REPORTS

The Mogul CEO financial reports shown below will help you determine the financial status and health of your company. They let you know whether your marketing and operations decisions yielded a profit, required borrowing to meet your cash flow needs, and resulted in a more liquid company. Below we discuss the three Mogul CEO financial reports; Balance Sheet, Cash Flow, and Income Statement.

Balance Sheet

The next report is the Balance Sheet (Exhibit 6.7). It shows the financial status of your company at the end of the quarter. The Balance Sheet is a snapshot summary indicating the Assets and Liabilities of the company at the end of that accounting period. Through it you can determine whether investments made in plant and equipment or equity investments are receiving a good rate of return.

The Balance Sheet also shows the net value (i.e., net worth) of your company. This is the liquidated value of the business if it “closed-up shop” and sold everything of value to pay for everything the business owed. Whether the stockholders would actually collect this amount of money would depend on whether they could sell their assets for “book value” (i.e., the value of the assets shown on the Balance Sheet). The owners might end up selling the company’s assets for more or less than their stated book value. This is similar to selling a used car. How much the potential buyer wants the car and what shape it is in will affect whether the car is sold at, above, or below a car dealer’s “Blue Book” price. The same kind of situation holds for the seller of assets of a business. The only asset that is worth exactly what is shown on the Balance Sheet is Cash. And even this account can become open to bargaining if the company does business outside the United States and has to deal with changing rates of exchange for the dollar.
Cash Flow Statement

The Cash Flow Statement provides information on the cash your company received and paid out this quarter. Exhibit 6.8 shows the impact of decisions made in Quarter 1 on your company's cash flow for that quarter. The Cash Flow Statement differs from the Income Statement (discussed next), which shows the dollar value of products you sold and the profits you earned during the quarter. The Cash Flow Statement shows the actual cash you received this quarter. This includes money you collected from Accounts Receivable. The Accounts Receivable on the Cash Flow Statement shows the amount of cash that was received from the accounts owing the company money for sales made in the prior quarter.
Below are some additional facts related to the Cash Flow Statement.

**Cash Receipts**
- 50% of sales revenues are received as cash in the quarter the sale is made.
  - The remaining 50% becomes Accounts Receivable and is collected as cash in the next quarter. There is no bad debt.
- Mortgage sales are received in the quarter requested.
- The sale of plant capacity is received one quarter after you sell the plant. For example, if you sell plant capacity in Quarter 2, you can use the plant in Quarter 2. You will lose the plant capacity at the beginning of Quarter 3 and receive the cash in Quarter 3.
- Interest earned on short-term investment is received the quarter after you make the investment.
- Withdrawals of short-term investment are received in the quarter requested.
- Short-term loan requests are received in the quarter requested.
  - The maximum amount you can request is displayed as your line of credit on the financial decisions screen. In Quarter 1, your line of credit is $700,000. This could change over the duration of the simulation exercise, so monitor it closely.
Cash Disbursements

- **Raw material purchases** are paid the quarter after you ordered the materials. The payment includes the cost of carrying raw material in inventory from last quarter into the current quarter.
- Interest charges on **short-term loans** are paid the quarter after the loan is received.
- **Interest charges on mortgages sold** are paid over 20 quarters beginning one quarter after the mortgage is sold.
- **Dividends issued** are paid in the quarter in which they were issued.
- **Income taxes** are paid in the quarter after you incur the tax obligation. For example, if you earn a profit in Quarter 1, you will have to pay taxes on that profit in Quarter 2. So, the amount shown as “Provision for Income Taxes” on the Income Statement is not paid in cash until the following quarter.
- **Mortgage retirement** begins the quarter following the sale of the mortgage. A mortgage is retired in 20 equal payments.
- Payments for the **purchase of plant** capacity are 20% down and 80% in the following quarter.
- Payments on a **Plant Lease** begin the quarter following the lease purchase.
- A **Short-term loan** is paid in one payment in the quarter after it was received.
- **Investment deposits** are paid in the quarter in which they are made.
- **Labor and overhead** expenses are paid in the quarter in which they are incurred.
- **Warehouse operations** are paid in the quarter in which they are incurred.
- **S & A payments** are paid in the quarter in which they are incurred.
- An **Emergency Loan** appears if your cash payments are greater than your cash receipts, plus any short-term loan request you entered.
  - If this occurs, your short-term loan request is denied and your company is given an emergency loan to bring your cash balance up to zero. This means that if you request a short-term loan for $200,000 but need $200,001, your loan request is denied and you will incur an emergency loan for the full $200,001 not for the $1 you were short in your request.
  - The interest rate on this emergency loan is double the current interest rate that is displayed on the Finance Decisions panel, up to a maximum rate of 30%.

Income Statement

The purpose of the Income Statement for any quarter is to show the amount of profit or loss that occurred as a result of your company's operations that quarter. Exhibit 6.9 shows the Income Statement for our example of Quarter 1 operations. On the Income Statement, the first line shows the sales revenue for this quarter and year-to-date (YTD) for the sales of your two products. The various costs of running the business that quarter are then subtracted from the total sales revenues. The Manufacturing COGS is the first item subtracted, yielding your gross profit for the business. After that, S&A expenses, warehouse costs and interest charges are subtracted to yield your net income (or loss) before you pay any taxes.

The tax rate for your business is 50%. No taxes are paid when a loss occurs in a quarter, except for the fourth quarter when the program makes end-of-year adjustments in taxes paid in order to make the cumulative effective rate 50% on earnings for the year.
Financial Ratios

The Financial Ratios Report shows a number of ratios that you can use to monitor the performance of your business. If you are not familiar with these ratios and what they represent, go back to your basic accounting and finance texts for guidance on this. Or click on the item and a short description will be displayed on your monitor.
INDUSTRY REPORTS

Besides the reports that are specific to your company, there are also reports available to all companies operating in your industry. These are the Industry Performance Report and Company Summary Report. You access these three reports under the Industry menu. We will discuss each of these next.

Industry Performance Report

In addition to reports on the performance of your individual company, you will also receive a performance report that will provide you with information for all companies in your Mogul CEO industry on five factors: sales, net income, return on sales (ROS), return on assets (ROA), and sales forecasting efficiency (see description, below). You will receive this information for both the current quarter and a summary of the game-to-date. In those cases where you see “TTT” instead of numbers, it means that the company was terminated from the industry and is no longer part of the simulation exercise.

Exhibit 6.11 shows an example of the Industry Performance Report. Note that you can change the quarter number for the report you want to view from this screen (see red arrow in Exhibit 6.11). We will use this example to explain how the Mogul CEO Team Administrator program calculates the points assigned to each team in the Pts Award columns. For each of the factors, the report shows each company’s performance, plus a ranking and evaluation of that performance. Figures in the columns indicate each company’s performance for that quarter. For example, Company 4 had Net Income for the quarter of $5,902 (see the arrow on the left in Exhibit 6.11).

Calculation of Points Awarded

The Points Awarded (Pts Award) column shows the number of points awarded based on each company’s performance on that factor. The points awarded to each company for their performance on a specific factor are calculated based on (a) that company’s performance relative to the company that achieved the best performance on that factor multiplied by (b) the maximum possible points that could be achieved for that factor. For example, Exhibit 6.16 shows that Company 1 was awarded 37 points for the Net Income factor. This number was calculated by dividing Company 1’s Net Income for the quarter by the company with the best quarterly income (Company 4) and then multiplying this result by the maximum possible points assigned for this factor (25). You set this number on the Performance Effect Weights screen after you created the industry (See Chapter 4). In this example, Company 1’s net income for the quarter was 37% (2,217/5,902) of Company 4’s net income, so Company 1 received 37% of the 25 possible points that could be achieved for this factor. Thus, Company 1 achieved a Pts Award of 9 (37% * 25).
Negative Numbers for Net Income, ROS or ROA. If the net income, ROS or ROA for a company is a negative, the Points Awarded number assigned will be a negative. The number of negative points assigned is based on the company’s relative performance to the best company for that factor. For example, if Company 1 in Exhibit 6.16 had a negative net income of $–2,217, instead of the positive number shown, it would have been assigned a negative 37 points for the Net Income factor.

The maximum negative Points Awarded that can be assigned is equal to the maximum positive Points Awarded number for that factor. For example, in Exhibit 6.3, the maximum points that can be earned for Net Income is 25, so the maximum negative points that can be assigned for this factor is -25.

Sales Forecast Efficiency Factor. The calculation of points awarded for Sales Forecast Efficiency uses an algorithm that assesses forecast accuracy (i.e., the absolute difference between forecast sales versus actual demand) with a weighted adjustment made for lost sales (i.e., stock outs). Results can range from zero to 100, which would represent a perfectly accurate forecast (i.e., forecast = units sold, with no lost sales). Sales lost as a result of insufficient inventory is expensive for companies. Consequently, sales forecast inaccuracies that result in stock outs are penalized in the algorithm’s calculation.

Overall Points Calculation. The Overall Points number displayed in this report is the sum of the points awarded to a company for all the performance factors (i.e., Sales, Net Income, Return on Sales, Return on Assets, and Sales Forecast Efficiency). The Overall summary also shows the rank of each company based on the Overall Points awarded. Note that in some cases two companies might receive the same number of points for a factor. This was the result of rounding to a two-digit number for display on the report. This rounding can also result in two companies showing the same number of total points, but different ranking numbers. The ranking is based on the un-rounded number resulting from the calculations for each factor.

Performance-to-Date Calculation. As with the Quarter Performance Report, the Performance-to-Date summary shows the total points awarded to a company based on the number of points it received on each of the performance factors. These calculations are based on all quarters of operation. For the sales and net income the Performance-to-Date Report is an accumulation of the combined total of all quarters of operation. For the return on sales (ROS) and return on assets (ROA) factors this report shows the average for all quarters of operation, rather than the total of the quarters. This allows a better comparison of game-to-date performance with current-quarter performance. The Industry Ranking summary shows the rank of each company based on the total points it has been awarded.

The instructor determines the maximum possible points for each of the factors. The points allocated to a company for each individual factor can range from -99 to 99, but the total of all of the maximum points for an individual factor for the factors must equal exactly 100. This means that points must be allocated to at least two factors. Usually at least a few points are allocated to each factor.

Company Summary Report
The Company Summary Report allows you to generate a quarter-by-quarter display of the results for your company. Exhibit 6.12 provides an example of this report. This report will allow you to see easily your performance over time. If you click on the “View in Excel” option (see arrow in Exhibit 6.12), you can use this worksheet to develop charts and graphs to help you manage your company.
A FINAL COMMENT

You should now have a basic understanding of each of the Mogul CEO reports that you will work with throughout the simulation exercise. The more you work with them, the greater your confidence should become in using them to manage your company. While these reports are simplistic compared to those of large, complex organizations, the principles for using the reports to gain insight into how to manage any company are similar. Learning how to analyze where your costs are coming from, and how to control these costs, is a key to working within any company. We hope and believe the challenges you face in this simulation experience will aid you in that process.
CHAPTER 7

REVIEW OF MANAGEMENT FUNCTIONS

The purpose of this chapter is to review the functions of management and show how each of these is involved in your management of the Mogul CEO simulations.

Management is the process of establishing goals for an organization and then working effectively and efficiently to achieve those goals. Effective managers attain their goals. Efficient managers achieve those goals without wasting resources. For example, they manufacture the desired number of products at the lowest possible cost. Effectiveness is concerned with the accomplishment of goals. Efficiency is concerned with using the minimal amount of resources to accomplish those goals. An effective manager cares whether the goals are reached. An efficient manager cares about getting there for the least possible cost.

It is important for a manager to be both effective and efficient. For example, a manager might succeed at selling a desired quantity of a product (i.e., the manager was effective). However, if excessive overtime was needed in order to produce enough of the product to meet the high sales goal, the cost of manufacturing the product could also become excessive. The net result could be losses and a failed business. Similarly, a manager may succeed in cutting costs, but cut them so severely that the company fails to sell enough to be profitable. For example, reducing advertising will save on those expenses, but also will reduce sales, as fewer people are aware of what your products have to offer them. Drawing the proper balance between effectiveness and efficiency is the mark of a successful manager.

The functions of management are interrelated activities managers perform to achieve their chosen goals. Most textbooks say that managers plan, organize, staff, lead, and control. Each of these managerial functions can be further broken down into smaller parts. For example, planning has the following elements:

* Formulating objectives (what you want to achieve);
* Formulating strategies and policies (what behavior you will use to pursue your goals);
* Problem solving (developing alternative actions for overcoming obstacles to achieving your goals); and
* Decision making (choosing which alternatives to implement).

PLANNING

Planning is the most basic management function. It should be the first function you perform when you begin Mogul CEO. Planning is deciding in advance what to do, how to do it, when to do it, who is to do it, and where it will be done. Planning comes first because you cannot, for example, determine the financial needs for your company’s activities until you know what you want to accomplish. The financing (i.e., money) needed to manage a large-scale company is considerably different from that needed to operate a small, niche player in the industry.

Planning is costly in its use of resources, especially time. Often participants do not like to plan, arguing that things change too fast to make planning worth the effort. Although excessive planning can be inefficient, making decisions without a plan is also inefficient when the company has to correct mistakes made because it had no clear sense of direction. For example, a company must know whether it wants to offer a high-quality/high-priced product or a low-quality/low-priced product before it can determine decisions regarding production volume and advertising. You must balance the benefits and costs associated with formulating and operating a plan. Remember also that planning is an ongoing process, not
a one-time event. Just because you develop a plan at the beginning of the simulation does not mean planning activities are finished. You will need to adjust your goals and policies in response to your competitors’ actions and to unforeseen changes in your environment. This means your company should periodically reevaluate its plan and make adjustments to reflect current conditions.

**Mission Statement**

The first step in the planning process for Mogul CEO, as it should be for any company, is the development of a company mission. A mission statement describes the purpose of the organization. It states why your company is in business and what kind of company it wants to be. Identifying a mission is critical to guiding your business successfully. Without this focus to guide your decision making, you may drift in how you approach your marketplace. As a consequence, the competitors who have a clearer mission will enjoy more success than you. They will know who their customer is and be ahead of you in determining what that customer wants.

The focus of a mission statement should be on the marketplace in which the company plans to operate. Who are the customers that it wants to serve? What customer need does the company intend to fulfill? And how will the company satisfy that need better than its competitors? The core of a mission statement should not be about making a profit, but about satisfying a customer need. This does not mean that making a profit is not important. A company needs to be as profitable as possible for it to maintain a long-term existence. If a company cannot sustain a profitable operation, it will eventually go out of business. If it cannot achieve a level of profit that allows it to invest in the future, it will lose its ability to compete in the marketplace over time as others invest in product enhancements and cost-effective equipment. Consequently, knowing where a company wants to go becomes key to knowing where, and in what, to invest the profits of today’s operations. Further, understanding what customer needs you are trying to satisfy is critical to knowing how to allocate the company’s limited resources.

Which of these, satisfying a customer need or making a profit, is the principal purpose of a business? Which of these should come first? That is the classic chicken-egg conundrum. Clearly, you must attend to both. Our belief is that you should start with the desire to satisfy a need, recognizing that if you do not maintain a profitable organization; your ability to satisfy that need will be short lived. If a company does not make a profit, it cannot continue to satisfy its customers’ needs, no matter how much its customers may want what the company is offering them. Consequently, we contend that a company has an obligation to make a profit so that it can continue to satisfy the needs of its customers and pay its employees a fair wage.

The debate may be less on whether making a profit is acceptable, but more on how much profit a company should make. At what point does a company begin to “gouge” its customers and to violate its social responsibility as a corporate citizen? That debate is not the focus of this manual, but you may choose to reflect on the ability of a competitive market to “control” excess profit taking by companies in that market as you participate in the Mogul CEO simulation exercise.

A mission statement should not consist simply of a series of platitudes that carry little operational meaning, such as “to maximize profits.” The mission statement needs to go beyond statements of profitability in order to give the organization identity and focus, both for yourself and for your potential customers. Because you will know very little about your company and its market environment when you begin, your mission statement will be relatively vague compared to that of a real organization. However, you do need to determine, in a broad sense, what role your company will play within its industry. How will you compete with the other companies in the simulation? For example, do you want to be a discount-priced/high-volume producer or a premium-priced/low-volume producer? What will be your competitive
edge? How will customers distinguish your company from your competitors’ companies? What will you do better than your competition? Perhaps most importantly, why will consumers want to buy your product rather than your competitors’? A sample mission statement is provided in Exhibit 7.1.

Exhibit 7.1

**SAMPLE MISSION STATEMENT**

Our mission is to provide quality-sensitive customers with technologically-advanced, premium-priced products. Our quality focus will extend beyond our products to our employees. We will provide them with a high quality of work life by conducting developmental training programs and maintaining a rewarding compensation structure.

**Statement of Goals**

Once you determine your company’s mission, you must decide what goals you want it to achieve in order to accomplish that mission. State your goals in terms that provide you with a clear sense of direction. A goal such as “to increase profits” is too vague to be very useful. Goals should also refer to a single, specific topic that is measurable, such as a sales goal or a cost of manufacturing goal. Unless you are able to measure your progress toward a goal, you will be unable to perform the managerial function of control. Control, which we discuss later in this chapter, involves deciding whether changes are necessary in order to reach your goals. Finally, goals should be challenging but achievable. If you set goals too low, the company will not advance as fast as it could. At the same time, if goals are unreasonably high, people will give up rather than strive to achieve them.

In addition, you must take into account the relationship among the goals. A good set of goals will avoid putting the organization in a position where accomplishing one goal has negative consequences for another goal. For example, a 25% market share may require a high promotional effort to achieve that target, making it difficult to also achieve an ROS goal of 15%. In this example, the high volume goal may be inconsistent with the profit goal. Exhibit 7.2 shows some sample goals.

Exhibit 7.2

**SAMPLE COMPANY GOALS**

1. Maintain market share of 10% for both products.
2. Rank in the top 20% of the industry on product quality.
3. Eliminate lost sales due to insufficient inventory levels.
4. Keep manufacturing cost of goods sold below $42.00 for Product 2.
5. Achieve 5% return on sales on a yearly basis.

Sometimes the shorter-term objectives of a firm will differ from their longer-term goals. For example, a company may sacrifice some profits in the short term and attempt to build market share in the hopes of achieving a market position that will permit earning above average profits in the long run. An illustration of this approach would be a company that greatly increased its advertising in the short term in the belief that the increased visibility would create a superior market position and increased profits in the longer run. However, managers must be cautious about doing this since no company can afford to disregard profits for too long.
Strategies and Policies

Once you have set your goals, you must plan how you will achieve them. This involves determining strategies, policies, procedures, and budgets. Strategies identify general courses of action for achieving your goals. Some examples of strategy statements are shown in Exhibit 7.3. Policies specify desired, acceptable behavior within your organization and serve as the basis for controlling behavior. Procedures and budgets describe the detailed actions you will take and the financial limits within which you will work.

Exhibit 7.3

SAMPLE STRATEGY STATEMENTS

1. Utilize premium pricing and above-average advertising to discriminate our product from our competitors’ and to finance continued product development.
2. Maintain price levels $1.00 above the industry average.
3. Invest 7% of sales revenues for Product 1 in quality improvements for that product.
4. Maintain safety stock levels at 12% of forecasted sales.
5. Maintain work-force levels sufficient to avoid any overtime charges.

Other Planning Activities

Besides developing these broad plans, you will need to make specific plans in the functional areas of the simulation. For example, Mogul CEO requires financial planning. You will need to borrow and repay money needed to operate and perhaps expand the business. In both Mogul CEO Team and Mogul CEO Solo, companies pay out cash immediately for marketing and production expenses. You must pay advertisers and employees at the same time that you use their services. At the same time, each Mogul CEO company sells its products on credit, allowing customers to receive the product now, but pay for it later. It takes two quarters to collect all the cash owed for items sold. This delay in receiving payment for your sales, while having to pay immediately for the cost of producing and marketing your product, complicates the need for cash. Your financial planning must take into account the need to pay for the cost of generating sales before you can collect on those sales.

You also are responsible for planning production levels, marketing strategies, and market research activities. Production planning involves forecasting material and labor needs, and determining production levels, product quality, and investments in plant expansion. When planning your marketing strategy, you will need to determine how much of the market you intend to capture and what mix of pricing, advertising, and product quality you will use to capture it. You must decide what market research information you need in order to stay aware of market conditions. Your competitors’ actions and predicted future consumer demand levels for products in your industry are useful information. Chapter 5 discusses these decisions in more detail.

ORGANIZING AND STAFFING

Mogul CEO Team was designed with the expectation that you will manage your company as one member of a group. Mogul CEO Solo was designed so that you can work alone as you progress from one quarter to the next. However, you could also work as one member of a group to manage your company as it competes with the other Mogul CEO Solo companies.
If you are a member of a group managing your company, you must decide how to organize your group so that you can effectively and efficiently work together to achieve your company’s goals. You should begin by establishing a structure for managing the company. To do this, first develop an organizational chart and a hierarchy of command that clarifies the relationships between the activities needed to manage your company. For example, you may choose to have positions in marketing, operations, and finance; all with a reporting responsibility to a Chief Executive Officer (CEO) who will resolve disputes between individuals in those positions. Next, establish the necessary personal and professional relationships between team members. Remember, you are all entering into this exercise as peers. You would be well advised to discuss, in advance, how you will manage your dual roles of peers (social - friendship) and Mogul CEO managers (organizational - work). Then determine the qualifications for each position and the corresponding responsibilities. Finally, the team should staff the company by determining who should fill the positions. Notice that the positions and their duties are determined before the group decides which member will staff which position. This will help you determine whether you need to acquire additional skills beyond those that the group currently possesses to effectively manage your company. For example, there may be no one in your group with experience in finance. This will require some outside learning by the person assigned to that position, so that he or she can perform the necessary duties of a finance manager. This, too, is no different from what occurs in a business organization. Companies hire people for their ability to learn to manage the responsibilities assigned to them, not just for what they know when they join the organization.

Even if you are managing your company alone, you should determine what kind of activities you will need to perform and what skills you need to perform these activities well. For example, if you decide you lack skills in finance, you should invest some time in learning how to interpret financial ratios and how you can use them to help guide your business decisions.

**LEADING**

If you are going to be managing your Mogul CEO company as a member of a team, you must decide how you will influence your team members to accomplish desired goals. How should the team divide responsibilities among its members? Are you going to have a management hierarchy or are you going to operate as a cooperative of equals?

Most likely the members of your team will have a mix of attitudes and abilities. This diversity means that most teams will face some motivational problems as these differences surface during the simulation. Team members may have differing perceptions on what constitutes an acceptable level of effort. One individual may only be willing to put in the effort necessary to receive a “C” for the exercise, whereas others may want to work at a higher level of effort. The team will have to decide how to deal with an unmotivated or under-motivated group member. The experience of having to work with real problems in motivation is valuable and underlines the fact that not all people choose to perform at the level you want or expect. This is the simulation’s equivalent of the leadership function. In real businesses, leaders direct, delegate, coordinate, motivate, manage personal differences, and manage change. You will have to work with all of these issues if you are part of a team that is managing your company.

Leading is not always performed in a hierarchical sense. Many organizations rely on teams consisting of individuals from various departments across the company to manage a specific project to its successful completion. Companies also expect employees to work “horizontally” across the organization to accomplish their assigned responsibilities. For example, in order for a marketing person to be effective, he or she must have the cooperation of individuals in the operations area of the business. Failure to manage this relationship will eventually lead to failures in the marketing area.
Further, organizations depend not just on their formal leaders to direct, motivate, and coordinate a group’s activities. Informal leaders also play a critical role in an organization’s success. Regardless of who is in charge of your group, you are all responsible for leading it to a successful experience with Mogul CEO. Managing peers is a critical skill for success in any organization.

**CONTROLLING**

Finally, you must deal with issues of control. You must establish a reporting system that determines what information is necessary to manage your company. You must also develop performance standards. This means you need to determine what indicates good performance by your company. By monitoring these indicators, you can determine when you need to improve your performance on key duties. Since you cannot measure everything, you need to select indicators that are critical to your company’s success. Watch these indicators to determine how much your company’s actual performance differs from the performance you desire. For example, you may determine that controlling manufacturing costs is a key to the success of your business. You must then also decide what is the desired manufacturing cost you would like to maintain and what is the maximum cost you can incur without becoming unprofitable. Knowing these numbers will allow you to determine whether you need to take corrective action and where to focus your efforts, should the need arise.

Whether the differences between actual and desired performance require corrective action or not depends on the level of importance you have given to the indicator and the degree of accuracy desired. If the differences are small, it may not be worthwhile to take action to correct your performance. For example, suppose you have a goal of no stock outs of Product 1, but also want to control inventory costs. In order to achieve that goal, you have set a target of maintaining a safety stock of 1,000 units of finished goods inventory for Product 1 and stated that a deviation of 500 from that target is acceptable. If you incur an ending inventory of 1,250, you will not have to take any special actions during the next quarter. However, if your ending inventory for Product 1 rises to 1,800 units, corrective action is necessary. You will have to adjust its activities in order to get its operations back within acceptable performance limits. The ability to identify critical indicators, determine a means for monitoring them, and then adjust decisions to bring the company back in line can easily separate the winners from the also-rans.
## APPENDIX A

### EXAMPLE OF MARKET RESEARCH REPORT

#### Market Research Quarter 2

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<th>Team</th>
<th>Price</th>
<th>Units Sold</th>
<th>Magazines</th>
<th>Newspapers</th>
<th>WWW</th>
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#### Average Expected Demand

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APPENDIX B

A STEP-BY-STEP WALK-THROUGH

1. Log into the Mogul CEO program (https://oaktreesim.com/MogulCEO/).
2. Select the Solo Practice option.
3. Enter some Marketing decisions. Click on Marketing Decisions link under the Marketing Menu.
   - Raise price of Product 1 by $2.
   - Buy 12 Magazine ads for Product 1.
   - Lower sales forecast for Product 1 by 500 units.
4. Make some Marketing Research decisions. Click on Marketing Research Decisions link under the Marketing Menu.
   - Buy Price and Units Sold information.
5. Look at the Forecast reports.
   - Select the Income Statement from under the Finance menu tab.
   - Write down your forecasted net income
6. Return to the Marketing decisions screen.
7. Vary the decisions.
   - Lower the Magazine ads for Product 1 by 5.
   - Lower sales forecast for Product 1 by another 300 units.
8. Look at the Income Statement again (see Point #5).
   - Notice the change in the Net Income from first forecast.
9. Print out selected reports.
   - Click the Panels tab on the Menu bar.
   - Select the Print Active Panels option.
   - Select OK when the Printer dialogue box appears.
10. Log off Mogul CEO.
    - Click on Logoff at the top of your monitor.