

# Solutions Manual

to accompany

*Managerial Economics and Organizational  
Architecture, 6e*

Answers to “Analyzing Managerial Decisions” Discussion Questions

By Jim Brickley, Cliff Smith, and Jerry Zimmerman

## ***Chapter 1: Introduction***

### **ORGANIZING XEROX SERVICE CENTER**

#### ***Discussion Question Answer:***

The individuals who answer the 800 number have the incentives to answer many telephone calls but not to spend time on any given call. Thus, they have incentives to limit the discussion with the customer and to dispatch a service representative even if a longer discussion would address the issue over the phone. The service representatives like this arrangement because they are compensated on the number of service calls they make. Neither the phone representatives nor the service representatives have incentives to take the follow-up activities seriously. The phone people do not want to learn how to serve customers better if it means handling fewer calls. Similarly, the service representatives want to make service calls.

### **SOCIETE GENERALE**

#### ***Discussion Question Answers:***

1. It is true that the Societe Generale employee traded on behalf of the bank and that any of the direct gains and losses from the transactions would go to the bank not the employee. This does not, however, necessarily imply that the trader was acting “irrationally” in placing the bets. It is likely that at least part of his bonus was either directly or indirectly tied to his performance as a trader. Also his performance could affect his prospects for promotions to higher level positions and compensation at the bank. While the trader’s compensation may be small from the standpoint of the bank, it was likely important to him. Clearly the trader’s actions were risky and have legal implications. Nevertheless, he could have concluded that the prospects of a higher bonus and promotion outweighed the costs. He apparently had confidence that the European stock market would increase over time. His knowledge of the control system helped him to conceal the transactions and reduce the likelihood that his actions would be detected. Indeed his actions were only discovered after a huge and rather unusual one day drop in European stock prices of nearly 6%. While his actions could be characterized as risky and apparently illegal, it is not clear that they were completely “irrational.”

2. The example raises managerial questions about whether it is wise to move an employee with detailed knowledge of the internal controls into a trading position without additional monitoring or better controls. While the details of the fraud at Societe Generale were still being investigated, it is plausible that the bank’s organizational architecture contributed to the problem – the bank’s delegation of decision rights provided the opportunity to undertake the trades, the bank’s incentive system may have helped to motivate the improper actions, and the bank’s monitoring staff policies could have increased the likelihood that they would not be detected.

3. Annual bonuses and the prospects for promotion provided important incentives in banks and many other organizations. As an executive, you should carefully consider the incentives that are created by your bank's compensation and promotion policies. Even well designed incentive plans can motivate a certain amount of unproductive and even illegal behavior. Reasonable controls and safeguards should be adopted to limit negative behavior. Naïve design of incentives and /or poorly designed controls can be a recipe for disaster. As a manager it is important you consider these issues before the problems arise. The box in this chapter on the subprime mortgage crisis emphasizes the same point. A primary purpose of this book is help managers become better designers of organization architecture.

## ***Chapter 2: Economists' View of Behavior***

### **MARGINAL ANALYSIS**

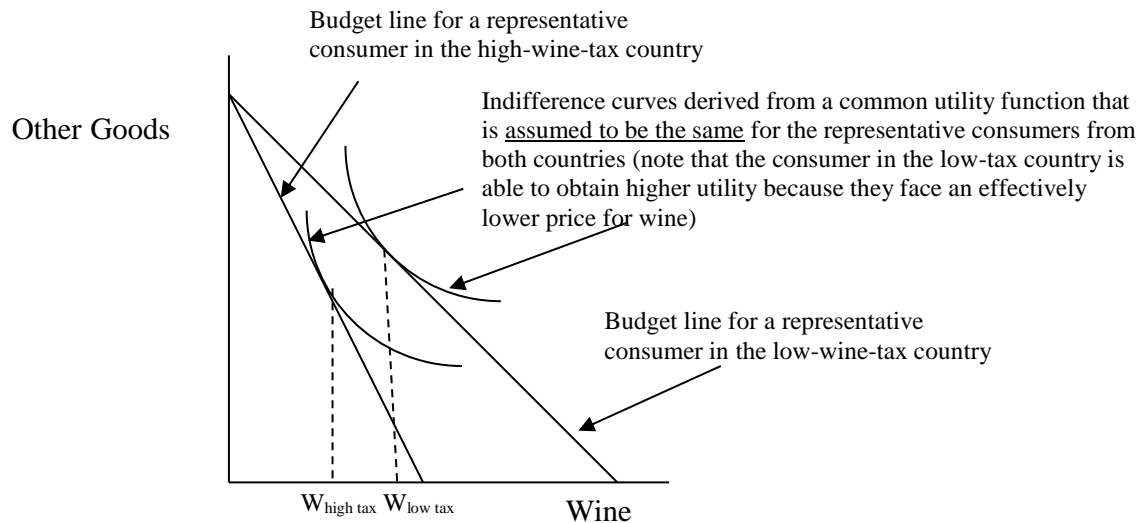
#### ***Discussion Question Answers:***

The marginal (incremental) benefit of this transaction is the \$600 of increased revenue. You need to calculate your marginal (incremental) costs to decide if you should accept or reject the proposed deal. The monthly lease and insurance expenses are not incremental, but sunk (you pay them whether you take the deal or not). You expect that the trucker will use the 100 gallons of fuel. The fuel can be replaced for \$3.25 per gallon for a total cost of \$325. The retail price of \$4.00 per gallon is irrelevant since the transaction does not affect the amount of fuel that you can sell to your other customers. You have to pay \$.50 to the lease company for every mile that the customer drives the truck. The customer will pay this cost once he reaches 500 miles. You are responsible for paying for the first 500 miles, which has a total cost of \$250. You have no other use for the truck for the week and thus there are no additional opportunity costs. Given these considerations, the total marginal cost is \$575 (the \$325 fuel costs plus the \$250 mileage cost). The marginal benefit exceeds the marginal costs by \$25 and you should accept the deal. Your optimal course of action could change if you faced a limit on wholesale fuel purchases. It depends on whether this restriction is “binding” in the sense that your allotted amount of fuel limits the amount of fuel you can sell to your retail customers. For example, suppose that the restriction is binding and that you could have sold the 100 gallons of fuel used by the rental customer to retail customers for \$4.00 per gallon. The opportunity cost of the fuel under this scenario is \$400 and the marginal cost of the proposed deal is \$650. In this case it is no longer optimal to accept the proposal.

### **CONSUMER CHOICE AND GRAPHICAL TOOLS**

#### ***Discussion Question Answers:***

A potential economic explanation for the differences in wine consumption in the two countries is that one country has a higher tax rate on wine than the other. Holding income and preferences constant across the two countries, you would expect to observe lower wine consumption in the country with the higher tax rate. This is illustrated by the following graph:



Prior to collecting any “real world” data your economic explanation is simply a plausible theory. Before you take any action you should consider whether there is any data that you could use to help confirm the validity of your explanation. For example, at a minimum you would want to determine whether the tax rates are actually different in the two countries. It might also be useful to examine data across a larger sample of countries to help confirm that there is a negative relation between tax rates and wine consumption across countries. Other possible data and analysis could be useful. You should also consider whether there are any other plausible explanations that could explain the differences in wine consumption (e.g., differences in the legal drinking ages, differences in the age composition of the populations, etc.) and determine whether there is any data that you could use to distinguish among the alternative explanations. For example, there might be differences in the legal drinking ages between the two countries, but data suggests that few youthful legal drinkers consumer wine (for example, they consume primarily beer). This book focuses on economic theory, not data analysis. However, it is important to note that it is usually important for managers to rely on both theory and data in decision making. Data analysis, while beyond the scope of this book, is typically an important component of business and economic education.

1. Now suppose that you have determined that the likely cause is the difference in tax rates, there are at least two actions that you might take to increase wine sales in the country with the higher tax rate. First, you might bottle the wine in larger bottles. The tax is on a per bottle basis and thus the customer pays a lower tax per unit of volume when the wine is sold in large bottles. This strategy is an example of being creative in getting around constraints. Second, perhaps you can devise a strategy to influence the relevant politicians/regulators to lower the tax rate on wine in the high-tax country. As we discuss later in this book, politicians and regulators can often be influenced by lawful actions of powerful business and lobby groups.

2. A preferences-based explanation for the differences in consumption between the two countries would focus on potential differences in tastes and preferences between the citizens of the two countries. For example, one country might be populated by people who have strong cultural or religious conditioning against consuming alcohol, while people from the other country are known to “enjoy a bottle of wine with every dinner.” Changing people’s preferences can be difficult and so it is often useful to look at potential economic explanations first (since a manager typically has more control over changing constraints than preferences). Also it is often difficult to collect data to determine whether differences in preferences actually are driving the differences in consumer behavior. That said, consumer choice is determined by both constraints and preferences and sometimes differences in behavior are driven by differences in preferences (or a combination of differences in constraints and preferences). Depending on the differences in preferences across potential customers, it may be possible to develop productive managerial responses. For example, suppose that you determine that the consumers in one country are not buying your red wine products because they prefer white wine to red wine (perhaps because of the type of food that they consume). You might correspondingly increase wine sales by exporting more white wine to the country and changing your advertising to correspond with your new product offerings.

## **INTERWEST HEALTHCARE CORP**

### *Discussion Question Answers:*

This case is based on an actual business. The real CEO subscribed to the “good citizen model.” He reasoned that the hospital administrators did not understand the importance of accurate information reporting to the company. He had several meetings and retreats with the relevant employees. He encouraged accurate reporting, stressed its importance, and motivated face-to-face meetings between hospital and corporate personnel. None of these actions had the desired effect. The economic view of behavior suggests that he should have looked at the incentives of the employees. As it turns out, the corporate finance employees had strong incentives to want accurate reporting. If the auditors found flaws in the information/accounting system they would receive the primary criticism and were likely to lose their jobs. The hospital administrators were not evaluated or rewarded based on the accuracy of the system. Rather, their primary concerns were meeting budgets, keeping doctors happy, and avoiding lawsuits and bad press.

To motivate increased concern about the information system among hospital administrators, the CEO should carefully evaluate the current incentive structure for the hospital administration and change it — placing increased emphasis on financial/information reporting.

## **RISK AVERSION VERSUS RISK TAKING**

### *Discussion Question Answers:*

It is generally difficult to change a person's preferences toward risk. A short experience in gambling is unlikely to do so. The training program might identify individuals with risk tolerances Trilogy desires. However, the people are already hired and this is unlikely to be the major reason for the program. Also, employees have incentives to behave in a risky manner in the program and it might be hard to discern underlying preferences of individuals from their actions. The program does a relatively effective job of communicating that risk taking is valued at the company. In addition, it gives the employees experience in evaluating risky alternatives.

