Harvard Business School
Case Selections (Reprint)

哈佛商学案例精选集
（英文影印版）

商务基础系列
Business Fundamentals Series

经理人财务知识

Finance for Managers

William J. Bruns, Jr. 小威廉·J·布伦斯
Michael E. Edleson 迈克尔·E·埃德尔森 等 *编写*
Steven Foerster 史蒂文·福斯特

中国人民大学出版社

Harvard Business School
Case Selections (Reprint)

哈佛商学案例精选集
（英文影印版）

商务基础系列
Business Fundamentals Series

经理人财务知识

Finance for Managers

William J. Bruns, Jr. 小威廉·J·布伦斯
Michael E. Edleson 迈克尔·E·埃德尔森 等 *编写*
Steven Foerster 史蒂文·福斯特

中国人民大学出版社

图书在版编目（CIP）数据

经理人财务知识/小威廉·J·布伦斯等编写
北京：中国人民大学出版社，2002
（哈佛商学案例精选集．商务基础系列）

ISBN 7-300-04165-5/F·1282
Ⅰ．经…
Ⅱ．威…
Ⅲ．财务管理-英文
Ⅳ．F275

中国版本图书馆 CIP 数据核字（2002）第 037476 号

哈佛商学案例精选集（英文影印版）
商务基础系列
Finance for Managers
经理人财务知识

William J.Bruns, Jr.　小威廉·J·布伦斯
Michael E.Edleson　迈克尔·E·埃德尔森 等　编写
Steven Foerster　史蒂文·福斯特

出版发行：中国人民大学出版社
（北京中关村大街 31 号　邮编 100080）
邮购部：62515351　门市部：62514148
总编室：62511242　出版部：62511239
本社网址：www.crup.com.cn
人大教研网：www.ttrnet.com
经　　销：新华书店
印　　刷：涿州市星河印刷厂

开本：890×1240 毫米 1/16　印张：10.75 插页 2
2002 年 9 月第 1 版　2002 年 9 月第 1 次印刷
字数：373 000

定价：29.00 元

INTRODUCTION

Welcome to the Business Fundamentals series from Harvard Business School Publishing!

The readings in this collection were developed for the MBA and executive programs of Harvard Business School. These programs rely heavily on the case method of instruction, in which students analyze and discuss firsthand accounts of actual management situations. Students also learn the fundamentals of what managers do: how they measure performance, make choices, and organize their activities. At Harvard Business School, the fundamentals are often taught through background notes, which describe business processes, management techniques, and industries.

The collections in this series are not meant to be comprehensive, but to present the fundamentals of business. Each collection contains several notes, and perhaps an article or two, that provide a framework for understanding a particular business topic or function.

Business is not an exact science. Your own business knowledge comes from your own experiences and observations, accumulated over many years of practice. These collections aim to give you a framework for past and future experiences, using many of the same materials taught at Harvard Business School.

The Business Fundamentals collections are designed for both individual study and facilitated training. If you want to use this collection for self-study, we've provided a summary, outline, learning objectives, and questions for each reading to help you get started. If these readings are part of a training program in your company, you will find them to be a rich resource for discussion and group work.

You can search for related materials on our Web site: www.hbsp.harvard.edu. We hope that your learning experience will be a rich one.

CONTENTS

NOTE ON THE FINANCIAL PERSPECTIVE: WHAT SHOULD ENTREPRENEURS KNOW?

(W.A. Sahlman / #9-293-045 / 20 p)

Summary

Sahlman offers managers a "primer" on financial concepts and tools, organized by three critical terms: cash, risk, and value.

Outline

Cash

Risk

Value

Learning Objectives

After reading the note and completing the following exercises, managers should be able to:

- Understand their business in terms of cash, risk, and value.
- Use sensitivity analysis to evaluate a potential investment.
- Analyze how patterns (seasonal, regulatory, tax, etc.) affect their cash flow.

Questions to Consider

- Are you comfortable with how much you know about finance? What, minimally, would you have to do to acquire the necessary education?
- What are some factors that affect your unit's cash flow? Are you able to respond quickly to them, or are you often caught off guard?
- How thoroughly have you prepared for changes in your environment that are likely to affect your business? What tools have you used to assess these changes?

Harvard Business School 9-293-045
09/04/92

Note on the Financial Perspective: What Should Entrepreneurs Know?

Finance is the study of the allocation of scarce resources within the firm. It helps managers in companies of all sizes to ask the right questions: How should they make investment decisions, that is, decisions entailing current sacrifice for future gain? How should they arrange for the financing of investment decisions? What effect do the decisions managers make have on value for shareholders and other constituencies—management, labor, suppliers, customers, government, society?

This definition of finance relies on two important premises. First, finance is the study of how decisions *should* be made. Second, finance is not just the domain of the financial manager; properly considered, it is also a task for general managers.

Like any management tool, finance cannot stand alone. Managers who view decisions only from the finance perspective are not doing their jobs. They must remember that the numbers they manipulate are generated by real people selling real products in a competitive market. To ignore the human or the production perspective would be just as fatal as ignoring the finance perspective.

If finance is useful to general managers of large firms, it is especially useful to entrepreneurs, for they are the ultimate general managers, responsible for making many, if not most, of the decisions in their enterprises. Entrepreneurs are value creators, investing today in hopes of generating cash flows tomorrow. They must understand what cash flow will do; they must understand and manage risk; they must understand how value is determined. Indeed, the importance of thinking through problems from the finance perspective is probably even more important for entrepreneurial firms than it is for larger companies. A key goal of the entrepreneur must be to keep playing the game; ignoring finance risks being forced to stop playing.

In the following paragraphs, I identify certain concepts and tools of finance that are useful to general managers and critical to entrepreneurs. The list is divided into three sections—cash, risk, and value.

Professor William A. Sahlman prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

Cash

The first principle of all financial thinking is that cash is what is important. Because cash can be consumed—traded for other assets in the economy that have utility—all analysis of investment or financing decisions must focus on cash.

Accounting Income Versus Free Cash Flow

Cash income is not, however, the same as accounting income. Finance relates to financial accounting only in that the financial analyst must be able to infer from reported financial statements what cash is doing. Whereas the accountant tries to match revenues with expenses, the manager focuses on the difference between cash inflow and cash outflow. Accountants distinguish between *expenditures* and *expenses*; they define *net income* as the difference between revenues and expenses. Managers define economic income as the difference between cash income and the sum of all cash outlays required to produce the cash income, whether called expenses or expenditures. That difference, called *free cash flow*, is the amount of cash income that can be consumed in any period (or invested in new projects) without hurting the cash flow stream. Free cash flow is defined as net income plus depreciation, minus required investments in working capital, plant, and equipment. It takes into account both the benefits and the costs of investing.[1]

Measuring Profitability

The manager's measure of profitability differs from the accountant's. Managers measure profitability on the basis of *net present value:* the difference between the present value of the future free cash flows and the initial investment, given the assessed riskiness of the flows. The accountant's measure of profitability (e.g., book return on equity) is probably unrelated to the manager's measure. Book return reflects the concept of matching income and expenses and ignores the expenditures necessary to produce the income. Moreover, book value is not the same as market value.

Performance Evaluation and Incentive Compensation

A basic tenet of finance is that individuals act to maximize their own wealth. A company's incentive compensation system will therefore have a strong effect on the actions of its managers. If the firm's objective is to maximize *value,* and value depends on *cash* and *risk,*

---

1. A more complete definition of free cash flow is as follows:
   Earnings Before Interest and Taxes (EBIT)
   Less Tax Rate x EBIT
   Plus Depreciation
   Less Change in Required Working Capital
   Less Change in Required Gross Fixed Assets

   This definition does not reflect how the free cash flow stream has been financed. That is, interest expense, loan amortization requirements, and common stock dividends have not been taken into account. Free cash flow is a measure of the net cash generated by a decision, before considering how it should be financed.

then the incentive compensation system must focus on all three factors. If, instead, it focuses on the accountant's measure of performance, the results are likely to be counterproductive; acting in their own self-interest, managers will make decisions that maximize accounting income rather than value. When performance evaluation systems focus on accounting systems, managers usually consider sunk costs when making decisions and often refuse to make a decision that would ultimately enhance value because the result would be to lower accounting income.

Taxes and Cash

An important determinant of cash flow is taxation. Four kinds of decisions affect taxes: legal (e.g., incorporation), investment, financing, and accounting. Managers must try to minimize the resources (corporate and personal) siphoned off to the government within the constraints of the law. To do otherwise would be to ignore one of the key responsibilities of management: to minimize costs in order to compete effectively. If one firm pays more taxes than an essentially identical competitor, the first firm will fail. The ultimate losers will be the firm's constituencies: management, shareholders, labor, consumers, and so on.

Cash and Growth

Another important determinant of cash flow is the rate of sales growth. Growth in sales must be supported by growth in assets (working capital and fixed assets). In turn, growth in assets must be supported by increases in stockholders' equity through retained earnings, stock sales, or increases in external liabilities. High growth rates may require successful firms to rely heavily on external funding.

It is essential that managers distinguish between real growth and growth in prices—that is, inflation. High inflation rates can have a much more damaging effect on a company's long-term financial health than high rates of real growth, especially in view of the historical cost basis for tax accounting used in the United States.

Pattern Recognition

A critical skill for managers is the ability to recognize and respond to patterns. Many patterns affect cash: cyclical, seasonal, competitive, technological, regulatory, and tax. A hallmark of good managers is their ability to recognize an opportunity to create value *and* to act on it. Becoming proficient at pattern recognition enables them to commit resources quickly to a perceived opportunity. By recognizing and responding to patterns of cash flow behavior, and by using past and current information, successful managers seek to predict the future and to take action.

Pattern recognition helps managers make both defensive and offensive decisions. Consider the effects of a recession. Battening down the hatches when the recession has been recognized is an example of a defensive action. Deciding to accelerate an investment in capacity during a recession precisely because the competition is battening down the hatches is an example of an offensive decision. Recognizing the event—a recession—and anticipating how the competition will react to it drives the company's decisions.

Of course, managers cannot always identify the patterns that are affecting cash flows at a particular time. They may not know, for example, when a recession begins or even ends; their reactions will therefore be delayed. If, however, they have studied the issues before they arise and have come up with a plan of action, they will do a better job than if they had not thought about the problem in the first place.

Scenario Planning

Scenario planning can be a useful way to analyze cash flows. A scenario is a numerical depiction of a logically consistent set of events that are likely to occur in the future. The scenario reflects past and potential management decisions. It also considers the probable moves of competitors. It is a way to manage in an uncertain environment.

Scenario planning is not the same as worst case, expected values, and best-case forecasting. These simplistic depictions of future events are not particularly useful. The reason is simple. Consider the worst-case scenario. Rarely will all the elements of a worst case scenario occur simultaneously. Moreover, these scenarios often fail to account for an explicit change in management decisions. They assume that management will keep making the same decisions it would have made had the expected outcomes occurred; in reality, managers may go so far as to abandon a project altogether. Best-case scenarios have the same pitfalls.

Nor is scenario planning the same thing as linear extrapolation. Few trends persist without interruption. Many planning errors are made because the planners extrapolate from past data. During the 1970s, many banks lent to energy companies based on values that reflected a continuation of rapidly escalating oil and gas prices—at rates above the expected rise in general prices. When oil and gas prices fell, both in absolute terms and relative to other prices in the economy, the values on which loans had been made vanished. This example, which admittedly relies on hindsight, is nonetheless useful because the pattern has been and will be repeated time and time again.

An unwritten rule states that every forecast a manager makes will turn out with hindsight to be wrong. But by making internally consistent forecasts that reflect reasoned management decisions and that are economically significant (i.e., not so unlikely as to be irrelevant), managers can manage in an uncertain world.

One final note: there is a crucial distinction between evaluating the effects of a particular event occurring and being able to predict the occurrence of the event with certainty. A good example is interest rates. No evidence indicates that any individual or group of individuals can predict interest rates with any precision. Nevertheless managers must evaluate the consequences of interest rate changes.

Consider All the Cash Flows

Suppose I am considering an investment strategy that involves acquiring at least three companies in the hand tool business over the next few years.[2] I already own a hand tool division that sells a narrow product line, and I have chosen this acquisition strategy because adding the three companies will produce significant economies (cost savings) in distribution.

2. This example is drawn from "Cooper Industries, Inc." Harvard Business School Case No. 9-274-116.

However, my financial vice president has come up with financial projections for the first acquisition candidate that do not justify making the investment. What should I do?

The first question to consider is: Does the analysis take into account all the cash flow effects of the investment? Does it include the potential savings to be realized by adding the new business to my existing business? Do the figures reflect any synergies (increased revenues) that might result from being able to offer the market a broader line of products? Finally, do they allow for the fact that the next acquisition will look even better because the division will already have two hand tool companies rather than one?

As this example suggests, any prediction of cash flows must take into account all the cash flow effects of the decision. The relevant question to ask is simple: If I make this investment, what cash flows will I get? If I don't make this investment, what cash flows will I get? Will I create opportunities to invest profitably in other new projects because I invest in the project under consideration? Considered in this light the acquisition strategy appears to be eminently sensible, and carrying it out will add measurably to the value of the company. Viewed individually, however, the investments do not look attractive. Focusing on the trees rather than the forest would be a serious error.

One element of successful pattern recognition is the ability to recognize how current investment or financing decisions affect cash flows from the firm's existing assets or from future investment and financing decisions. Attributing these effects (whether positive or negative) to the decision under consideration is an important element of financial thinking.

Don't Run out of Cash

This is a fundamental rule of finance (and of business generally). Just as blood sustains living organisms, cash sustains a business. Most competitive moves can be thought of as investments; even the decision to cut prices temporarily is an investment decision. In a competitive economy, the inevitable result of being unable to invest due to a cash constraint is atrophy and death. Not only is the company unable to seize profitable investment opportunities, but financial weakness might encourage the competition to attack. By forecasting and planning for future cash flow patterns, managers can avoid jeopardizing their firms' survival.

Note that the definition of cash I use is very broad. What I really have in mind is the potential to raise cash from inside and outside the firm. To obtain cash from external sources, however, there must be value within the firm that can be sold off.

Risk

The riskiness of a particular cash flow stream determines its value. How is risk measured? How do managers deal with uncertainty?

How is Risk Measured?

There are really two answers to this question. One way to define risk is as the total amount of uncertainty about future cash flows. A manager will never be able to predict future events with certainty. The managers of a rocket-launching company may have a good idea what cash flows will be if the rocket is successfully launched or if it dies on the launching pad; they cannot predict exactly which of these two events will occur. This first notion of risk focuses on that total uncertainty about future events.

Another notion of risk deals with only a portion of total risk: the portion of the total risk that cannot be diversified away. Suppose, for example, that an investor had the following choices: invest in a suntan lotion manufacturer on a small tropical island; invest in an umbrella manufacturer on the same island; or invest in both. The expected return from investing in either company is 10%. The actual return depends on whether the island has a sunny year, a normal year, or a rainy year. In the first case, the suntan lotion producer will do well and the return on investment will be 30%. The umbrella manufacturer, on the other hand, will do poorly in the sunny year and will report a negative 10% return. The opposite pattern will occur in a rainy year. During a normal year, the investor will earn a 10% return on an investment in either company. Unfortunately, no one on the island had developed a foolproof way to predict the weather for the forthcoming year. What should the investor do?[3]

The answer is obvious when you think about it. Investing in both companies rather than in just one eliminates the uncertainty about the investor's return. The investor is certain to get a 10% return on his or her money *regardless* of the weather during the next year. By combining the two companies, the investor gets the expected level of return while removing all risk.

A fundamental principle of finance is that investors will seek to maximize return for a given level of risk and minimize risk for a given level of expected return. In the preceding example, the only rational decision for an investor unable to forecast the weather is to invest in both the umbrella manufacturer and the suntan manufacturer. Investing in only one of the two would expose the investor to unnecessary risk. Investors will not be compensated for bearing any risk they can get rid of without cost; that is, they cannot expect higher returns for bearing diversifiable risk.

This example demonstrates a powerful principle: don't put all your eggs in one basket. Successful professional investors obey this rule. To the extent that they do, the price of risk in the capital markets depends on that part of total risk that cannot be diversified away, not on total risk. Phrased another way, the discount rate that will be applied to future cash flows to convert them to current dollars (present value) will depend principally on the systematic riskiness of the cash flows. *Systematic risk* is defined as the covariability of the return on the particular asset with the return on a portfolio comprised of all risky assets in the economy (the ultimate diversified portfolio).

Outside the world of academic finance, this is a controversial assertion. It shouldn't be. Still, the principle should not be carried to an illogical extreme. The statement that the price of risk depends solely on the undiversifiable (i.e., systematic) risk applies only to investors with

3. This example is drawn from David W. Mullins, "Does the Capital Asset Pricing Model Work?" *Harvard Business Review* (January—February 1982): 105-14.

diversified portfolios.

Many rational investors have undiversified portfolios. It is important, then, to distinguish between active and passive investors. Active investors have significant control over the returns they will receive on their investments. An example would be an owner-manager of a company. The owner-manager generally has an undiversified portfolio and must therefore be concerned with total risk, not just systematic risk. Passive investors exercise essentially no control over their investments. It would be irrational for these investors not to diversify their investments, and they will, therefore, measure risk as the systematic component.

For managers acting in the best interests of their diversified shareholders, the cash flows from investing should be discounted at a rate that reflects only the systematic riskiness of the project, not the total risk. This rule applies even to managers who are personally undiversified but are making decisions on behalf of diversified investors.[4] An important corollary is that diversified investors will pay no premium for diversification by companies because they can achieve such diversification on their own at no cost.

Risk, Discount Rates and Benchmarks

Modern finance textbooks put great emphasis on determining the "right" discount rate or the "correct" cost of capital and often provide complicated formulas for calculating the discount rate. This preoccupation is misguided. The current state of finance theory and experience suggests that the search for exactitude will not be successful. We simply cannot be precise in our calculations.

The inability to be precise does not alleviate managers' responsibility for estimating the opportunity cost of investing. When making decisions based on value, managers must estimate discount rates, just as they estimate future cash flows.

What, then, is a reasonable discount rate? While a complete discussion of this issue is beyond the scope of this reading, some elementary principles can be outlined. First, it is most useful to think of the determinants of the discount rate as follows:

$$\text{discount rate} = \underset{\text{rate}}{\text{risk-free}} + \underset{\text{premium}}{\text{business-risk}} + \underset{\text{premium}}{\text{financial-risk}}$$

As this equation shows, the discount rate has three elements. The base level is the rate of return required on investments that have no business or financial risk. An example would be a government bond. A premium must be added to reflect business risk. The preceding discussion about what constitutes risk then becomes relevant: for diversified investors and for managers of companies acting on behalf of diversified investors, business risk is measured relative to all risky investments; for undiversified investors, total risk is what matters. Next, a premium for financial risk must be added. When a company or project is financed by using debt, the returns accruing

4. This statement is intended to be normative rather than descriptive. Inevitably, managers will take their own personal risk exposure into account in evaluating any decision. The point here is that the performance evaluation and incentive compensation systems should be set up to encourage managers to take risks, per se, and to make decisions using as a metric the effect of the decisions on the wealth of the shareholders.

to the equity owner are riskier. The interest must be paid before the shareholder gets any return. Therefore, equity investors will require higher returns (holding all other things constant) from debt-financed investments than they will from equity-financed projects.

This simple description of the determinants of the discount rate does not imply an equally simple way to estimate discount rates in the real world. However, there are some guiding principles. The first source of data must be the capital market's current risk free interest rate. This is the fundamental benchmark. Then, the appropriate premiums must be added, depending on the assessed degree of basic business risk and the financial strategy employed by the company. Once again, a useful, but not infallible, source of data on the riskiness of relevant cash flows and on the required premiums is the capital market.[5]

In estimating discount rates for most complex projects, the best managers can hope to do is decide whether a project is low, middle, or high risk. To expect an analysis to yield more exact estimates would be inappropriate and even dangerous.

Risk Management

The preceding discussion focused on how the capital markets charge for risk. An issue of greater importance is managing total risk. The basic tools have already been described: pattern recognition and scenario planning. What are the events that will affect the company? How likely are they to occur? How will we respond when and if they occur? What are the likely consequences of the event and the reaction to the event in terms of cash, risk, and value?

Another principle of risk management has already been discussed. Managers should try to get rid of risks if they can do so at relatively low cost. (For passive investors, getting rid of exposure to certain kinds of risk turns out to be simple and cost free: hold a diversified portfolio.) Managers should transfer risk to those most able and willing to bear it. Certain kinds of risks can be transferred to others at low cost. If a major risk confronting a company is the possible death of a top executive, then the company can purchase life insurance on that executive's life. This is an example of an event outside the control of management that can and should be guarded against. The insurance company charges a low premium for the policy, implying a favorable benefit-to-cost ratio. The policy premium is low because the contribution to the risk of the insurance company of adding one more insurance policy to its portfolio is negligible.

Another example of transferable risk is the technological risk inherent in buying a computer. Certain leasing firms specialize in bearing this risk. The larger leasing companies often hold widely diversified portfolios of assets, including many different kinds of computers. By virtue of their diversification and their expertise in managing technological risk, these firms are better able and more willing to bear the risks associated with purchasing a computer. A firm that only needs the services of the computer might be well advised to lease rather than buy one.

---

5. One measure of risk from the capital markets is known as *beta*. Beta is a measure of how sensitive the returns on a given stock are relative to returns on the market. The process of estimating risk and an associated discount rate from capital markets data is fraught with pitfalls. But, these data, when combined with common sense, often offer reasonable guides to the appropriate discount rate. Moreover, there is usually a very close correspondence between virtually all measures of risk, including systematic and unsystematic.

The underlying principle of risk management is that company officers should choose with deliberation the risks they are willing to bear.

Risk, Time and Investments in Risk Reduction

Risk is not constant over time; with the passage of time, uncertainty is usually resolved. A large R&D project may look quite risky at first, but preliminary results, whether good or bad, will gradually reduce the uncertainty.

A useful way to take likely changes in risk into account is to break down the elements of a project into modules, or stages. While the potential returns from such a strategy may be lower than if the project is undertaken all at once, the reduced risk may more than compensate for the lower return.

Risk, Performance Evaluation, and Incentive Compensation

An important issue for top management is how to evaluate and reward managers operating in uncertain environments. Here are three useful guidelines:

- Measure performance in a relative rather than an absolute sense;
- Assess performance on the basis of value rather than single-period accounting data;
- Compensate managers accordingly

For example, the absolute performance of a manager's business unit may be poor; but this may not mean the manager has done a poor job if the reasons for the poor performance were beyond his or her control—say an economic recession or an unexpected change in the regulatory environment. To keep managers from avoiding all risky decisions, even those with positive net present values, it is essential to compensate them on the basis of how well they respond to actual opportunities. Identifying scenarios for future cash flows and managerial decisions will help top management assess and reward performance.

In assessing performance, top management must also focus on how decisions contribute to long-term value rather than short-term operating results.[6] Managers supervising major strategic investments can have poor current results—low profits or even losses—while doing an outstanding job of creating long-term value. Penalizing these managers could lead to missed investment opportunities and long-term competitive decline. An incentive compensation system that focuses on short-term accounting performance will discourage long-term value building.

Risk and the Rules of the Game

Certain rules and regulations—for example, tax policies, antitrust regulations, health and safety regulations govern every business decision. Naturally, these rules change over time, and

6. A consistent theme of this reading has been that value is a useful metric for evaluating the consequences of decisions. This does not mean that managers of publicly traded companies should build corporate strategies based on current stock price. Rather, managers should focus on the long-term fundamental valuation implications of their decisions; in doing so they should not ignore current information from the capital market.

the effects of change can be devastating. Planning for alterations in the rules of the game is an essential part of management thinking.

Suppose, for example, that the level of allowable depreciation changes. Depreciation is a noncash charge to pretax income. Increases in allowable depreciation expense would lead to increased cash flow from any given investment project. A company that has made a high capital expenditure under the prior rules will be at a cash flow disadvantage compared with a competitor that has delayed investing until the new rules were passed.

The point here is simple: ignoring the ways in which changes in the rules of the game can affect the absolute and relative position of the company is a serious mistake.

Value

Value is determined by the interaction of cash and risk and is affected by investment decisions that create future cash flows and by financing decisions that market the existing and future cash flow streams to shareholders and bondholders.

Getting Your Money Out

A simple rule of finance is that the present value of nothing is nothing. Professional managers and investors must ask a fundamental question before committing resources to any investment: How will I get my money out?

Positive Net Present Value Decisions

A decision has a positive net present value if the discounted present value of the expected cash flow exceeds the purchase price. If you buy a project and the expected rate of return exceeds the opportunity cost of capital for a project with the same level of risk, then the project has a positive net present value.

Managers who find a project that seems to have a very high expected return and a high net present value must ask and answer one simple question: How will the return be achieved? If this question cannot be answered, the project probably does not have a positive net present value. Investments only have positive net present values when there exists, or is likely to exist, a specific advantage for the company making the investment. These advantages may include superior management, controlled access to scarce resources, product differentiation, economies of scale, or other cost advantages unavailable to the competition.

Once again, a key component of successful pattern recognition is the ability to identify potential positive net present value decisions and to respond to them before the competitive advantage disappears.

Sensitivity Analysis

All financial analysis seeks to identify critical assumptions and key managerial concerns. Sensitivity analysis accomplishes this goal through asking a series of simple questions, the answers to which are important because they affect both the initial decision and the way in which subsequent decisions are made.