

# Management Problem Solving Cases: Internet Business Cases

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### **How to Use the Software Cases**

There are five Internet business problem solving cases in this package. The cases are graduated in difficulty, both in terms of software skills and management skills. The cases are short enough to be answered in one computer session lasting no more than one hour for a novice.

Each case has an estimated completion time. Students are strongly advised not to skip early problems. If you skip early problems, you will not learn the software skills required in later cases. This will, in turn, lengthen the time required to answer later cases by several hours.

A Tutorial Documentation section that carefully describes the Internet skills needed to solve each case follows the case. Where Student Data Files are needed for the case, they are identified on the first page of the case. In other cases, the data is downloaded from the Web as a part of the case project.

You should first read the case to understand the nature of the problem. Then examine the tasks you will need to perform to complete the project. You should then study the Internet Tutorial carefully to be sure you understand how to use the Internet, or use the software. Finally, you should begin work on the case itself.

### **How to Cope With Ambiguity in Cases**

Because these cases are derived from real world events and circumstances, they often contain ambiguities—just like the real world itself. In advanced cases, you will typically find more than one way to solve a problem, and you will find that certain assumptions and value judgments must be made to arrive at any solution.

You should first clearly identify the nature of the ambiguity. Then consider the alternative solutions. Choose the solution you prefer and specifically state the assumptions and value judgments you are making. Be prepared to defend these assumptions, as well as to learn from others who made different assumptions.

## **System Requirements**

These management cases assume that you have access to a personal computer, with access to the Internet, a CD ROM drive, and Microsoft Excel and Access installed. The cases also assume you have the ability to work with the Windows operating system. The cases are developed using Excel 2003 and Access 2003, but you may be able to use earlier versions as well. You will also need access to a printer.

## **General Instructions for Working With Student Data Files**

1. Read the case study to identify the name of the specific data file used in the case. This will also provide an overview of the case's basic issues. On the first page of each case, the appropriate student data file is identified.
2. Start Excel or other software required by the case, and then open the case study data file if required by the case. The case study file will be found on the Student CD ROM in the folder named Student Data Files. Alternatively, if there is no student file, you will be accessed to download data from a Web site. The Student CD ROM must be inserted into an appropriate CD ROM drive on the computer you are using when searching for Student Data Files.

You are now ready to begin.

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# Internet Business Cases

The Internet and the World Wide Web have had an extraordinary impact on the conduct of business in the last decade. E-commerce—the use of the Web to conduct business transactions—has grown into a projected \$140 billion business-to-consumer (B2C) marketplace in 2004 from a standing start of zero in 1995. The Web also enables an estimated \$1 trillion trade in 2004 among businesses (B2B e-commerce). The Internet has also transformed the internal transactions of businesses by providing a powerful, inexpensive, standards-based communications infrastructure that can be used to support relationships with customers, vendors, and employees in the form of Extranets and Intranets.

In 2004, there are approximately 750,000 business firms connected to the Web worldwide. About 945 million individuals have Web access worldwide, and in the U.S. 170-200 million people use the Web at home or at work. The size of the Web continues to grow at a torrid pace albeit slower than the earlier years of exponential growth. The Web contains over six billion pages of information. Searching through all this information and making sense out of it is a major challenge.

Aside from e-commerce and e-business, the Web has had an equally large impact on how business people gather and use information. For businesses the Web provides a storehouse of information on markets, competitor behavior, consumer research and behavior, and financial information. In the past much of this information could either not be obtained, or would be very expensive and require a team of researchers. Today business people can in a few hours conduct a Web search for product and service vendors, discover what their competitors are doing, research developments in government policy that effect the firm, and find out the latest financial information on their firm, or an entire industry.

In this chapter we focus on the business uses of the Web to conduct business research, competitive intelligence, financial analysis, and market research. Table 6-1 describes the cases in this chapter.

Table 6-1 Web Cases

Name and Type	Description	Potential Web Sources
Case 1: BestResults.com Web Portal  Business Research	Search engine/travel and entertainment Web portal seeks to improve management environment by purchasing an internal corporate portal	SAP.com Oracle Plumtree Software
Case 2: TrainOnline.com  Competitive Intelligence	Online training startup assess the competition	Nielsen NetRatings clickz.com Monster.com Toptenlinks.com Jobweb.com
Case 3: Innovative Benefits Programs  Business Research	Health insurance and retirement plan administrator investigates Internet security and privacy issues	U.S. House of Reps. U.S. Senate Electronic Privacy Info Center Library of Congress
Case 4: Willamette Investment Financial Advisors  Financial Analysis	Financial advising firm helps a client choose a company in which to invest using financial ratios	SEC Edgar database Finance. Yahoo.com Hoovers.com Smartmoney.com
Case 5: Proxis, Inc.  Market Research	Communications company researches the likelihood of a successful expansion of services	United States Census Statistical Abstract of the United States
Case 6: Sound By Design Business Research	Sound equipment company wants to patent invention	United States Patent and Trademark Office
Case 7: Sustainable Consulting Market Research	Consulting company advises clients regarding exportation of U.S. products	National Marine Fisheries Service United States Census Statistical Abstract
Case 8: Northwest Import/Export Financial Analysis	Import/export company determines whether importing a product is economically worthwhile based on exchange rates	x-rates.com xe.com United States Census Statistical Abstract of the United States
Case 9: Fairmount Industries Business Research	Manufacturing company Human Resources Director researches midpoint of selected positions	U.S. Department of Labor's Bureau of Labor Statistics

We assume in this chapter that you are familiar with the Web and know how to use basic Web search tools. If this is not the case you can use the following tutorials available on the Web that describe the Internet and the World Wide Web:

**Table 6-2 On Line Internet and Web Tutorials**

<b>Web Site URL</b>	<b>Description</b>
<a href="http://library.albany.edu/internet">http://library.albany.edu/internet</a>	University at Albany Internet Tutorials—Links to basic tutorials about the Internet, Internet research, search engines, Web browsers, and software training.
<a href="http://www.findtutorials.com">http://www.findtutorials.com</a>	Access to hundreds of free tutorials, low-cost online training courses, and IT jobs.
<a href="http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/">http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/</a>	University of California, Berkeley, Internet Guide—Internet tutorials to help college and university students learn how to search the Internet, create WWW resources, evaluate sites for academic value, compare Web browsers, find Internet and Web terms, etc.
<a href="http://www.wdvl.com">http://www.wdvl.com</a>	Web Developers' Virtual Library—Thorough, illustrated guide to Web technology including tutorials, and examples, and links to other resources.
<a href="http://www.davesite.com">http://www.davesite.com</a>	Dave's Site—Includes a beginner's guide to the Internet and various other Internet-related guides.

The Web cases that follow generally do not require new software skills but focus instead on the use of the Web for management decision making in business. In most cases Chapter 6 tutorials will refer you to previous chapters to review earlier software tutorials as required. Where new software skills are required, they will be covered in the Chapter 6 tutorials.

## Web Case 1

### BestResults.com Web Portal

Problem:	Prepare a report on Web portal technology and calculate the return on investment for a portal project.
Management skills:	Planning Deciding
Web skills:	Business research
File:	Bestresults_q.xls

BestResults.com started as a simple search engine in 1996. Over the last eight years, it has expanded beyond its core business to providing a wide range of travel, entertainment, and financial services, as well as in-depth content on sports, medical issues, and news in an effort to find a wider audience and keep visitors at its site for longer periods of time. The longer visitors stay at the site, the greater the revenue for BestResults. Companies and individuals now use BestResults to find low-cost airline fares, discounted hotel rates, rental car deals, and related travel information. Individuals often use the site to research entertainment packages at popular tourist destinations and find financial information about companies for stock picks. Using Best Results' unique reservation system, registered site users can make airline reservations, buy tickets, rent rooms, reserve cars, buy entertainment packages, and make other travel arrangements all in one Web site visit. Users can also create a profile of their stock portfolio to monitor their holdings on a daily basis.

Since BestResults has grown from fifteen employees providing a simple search service to a Web portal with 450 employees providing many services, the management team has become overwhelmed with information. The small management team must keep track of various Web activities at its site, including the number of visitors, sales for each of its services, and results of promotional campaigns, as well as weekly and monthly cost reports. Although they are a Web services company, managers are overloaded with paper-based reports. Different managers need different types of reports, and each report requires data that the IT Department must provide on a routine basis. With so many employees, there is a growing demand for information on training, pensions, and benefits. As the customer base has expanded, it has become increasingly difficult to respond to customers seeking help with BestResults' various service offerings or deal with customer complaints.

As a result, the costs of managing the firm have skyrocketed despite a long-term effort to keep the management head-count down.

CEO Marcel DuBois wants to move the firm toward a more uniform information management environment, one that would be more efficient, provide better service to customers, impart employees with more information on company activities and programs, and offer managers a coherent online information environment. She is considering the development of an internal Web portal as a tool for organizing and accessing the company's critical management information.

A corporate *portal* is an internal Web site running on a corporate intranet that organizes the important management information for decision-makers, as well as general corporate information required by all employees. Portals provide a single point of access and a delivery vehicle for important corporate information. Users can customize and personalize the content they see to focus on just those pieces of information they require to do their jobs. Portals can also be configured to call information from a variety of back-office legacy systems and present it to users in an easy-to-use Web environment.

Although the BestResults technical development team could build such a corporate portal, this is not one of their core competencies, and DuBois does not want to pull the technical team off more valuable Web site development work. Therefore DuBois is planning to purchase an off-the-shelf Web portal service from a firm that specializes in this technology.

CEO DuBois has given the job of designing and developing a successful corporate portal project to CIO Jordan Huff. Huff supports the idea of purchasing a corporate portal from an outside firm that has experience with this technology rather than building it in-house. He needs some help identifying vendors in this area and acquiring background information on costs and benefits. As Huff's executive assistant, your first assignment is to use the Web to research corporate portal vendors and develop a report for the portal project.

**Tasks:** There are three tasks in this case.

1. Use a search engine like Google.com or Yahoo.com to find three Web sites of companies that sell corporate portal technology. Prepare a short report (3–5 pages) or PowerPoint presentation (5–7 slides) describing the features of corporate portals, their benefits, and costs. Many sites will include case studies of “success” stories. Be sure to include at least one successful case in your report. Include a section in your report or presentation that describes some of the potential risks and pitfalls of using this technology.
2. Huff has provided you with some initial estimates of the costs and benefits of the new portal for the next three years. These estimates are provided in the accompanying spreadsheet **Bestresults\_q.xls**. He would like your help in analyzing the results.

Calculate the following:

- (a) Total projected costs for each year, and the total costs for all years.
- (b) Total projected benefits for each year, and the total benefits for all years.
- (c) Depreciation; Assume a straight line depreciation over three years.
- (d) Annual net benefits (nominal) for each year (benefits-costs for each year).
- (e) Cumulative payback (nominal).
- (f) The accounting rate of return for the next three years; The accounting rate of return is defined as:

$$\frac{(\text{total benefits} - \text{total costs} - \text{depreciation})/\text{useful life}}{\text{total costs}}$$

We will assume in this problem that the useful life of the portal is three years, the depreciation is equal for each year, and at the end of the period, the portal has no salvage value (the value is zero after three years).

- (g) Prepare a brief statement arguing for or against this investment by the firm.
- \*3. Calculate the net present value of the investment in the portal technology. Assume a prime interest rate of 5%. You must calculate the present value of the annual net benefits.







**Hint:** Use Excel's NPV function to do this. The net present value is defined as the present value of annual net benefits minus the total investment cost.

On the basis of your results, do you recommend this investment? Write a paragraph describing the benefit of this investment for the firm.

## Tutorial for Web Case 1

### Search Engines on the Web

Search engines are software programs that enable Web users to locate documents of interest through keyword searching. Most of them also allow the searcher to use Boolean logic (AND, OR, NOT operators) to refine searches. It is estimated that there are around 900 search engines available for use on the Web, and most of them are free. Some of the most popular search engines are:

WORD-ORIENTED SEARCH ENGINES	
	<b>Google</b> www.google.com
	<b>AltaVista</b> http://www.altavista.com
	<b>Web Crawler</b> http://www.webcrawler.com
	<b>Lycos</b> http://www.lycos.com
	<b>Excite</b> http://www.excite.com
SUBJECT-ORIENTED SEARCH ENGINES	
	<b>Yahoo</b> http://yahoo.com



Each of these search tools works in different ways and often produces similar but different results. The most widely used search engine is *Google*. Google uses a combination of techniques, including Web crawlers that index the word content of nearly 4.28 billion Web pages. *Alta Vista* is a true keyword searching of document titles and text within documents, and is possibly the most comprehensive search engine of its type. Alta Vista tends to produce very large lists of search results. Therefore, be careful to narrow your search arguments when using keyword search engines. For instance, if searching for information on “security alarms,” narrow your search by specifying “home,” “business,” “boat,” or “automobile.” What type of security alarm are you really looking for? If you are really looking for a wireless car alarm that will sound an audible alarm and then send a radio signal to your beeper, your search argument on a keyword search engine should be something like “security alarm and automobile and wireless.”

Other search engines like *Yahoo!* are more like yellow page directories. They are put together by human editors assisted by input from Web site operators (some of whom pay for listing) and their own Web crawlers that search the Web for pages to index, as well as information provided by other software programs that record the “connectedness” of a site (how many sites link to this target site). The popular sites are very well-connected because many sites have links to, for example, [www.espn.com](http://www.espn.com), the Web’s most popular sports site. The result is a smaller, more targeted list of search results.

Different search engines produce some differences in results, especially for very specialized search topics. Researchers have found, for instance, that there is about a 60% overlap among search engines. Nevertheless, this also suggests that 40% of the pages found on one search engine will not be found on another search engine even when using the same search argument.

## Understanding the Financial Value of Information Systems

Businesses invest in information technology applications for a variety of reasons. In some cases, the investment is undertaken to achieve growth in market share, in other cases, it is simply as a requirement for staying in business, and in still other cases, it is undertaken to achieve a return on invested capital. Sometimes all three motivations are important. Whatever the reason for investment, most businesses will perform a financial returns analysis. The two most common financial return calculations are the accounting rate of return (ROI) and net present value analysis.

### Accounting Rate of Return

The accounting rate of return is defined as:

$$\frac{(\text{total benefits} - \text{total costs} - \text{depreciation}) / \text{useful life}}{\text{total costs}}$$

For instance, in the example below, the total benefits of an investment over four years are \$450,000, total costs are \$100,000, and depreciation of the investment is \$50,000. The useful life is four years in this example. Using the formula above, the accounting rate of return is 75% over the life of the project.

Total benefits	\$450,000
Total costs	\$100,000
Depreciation	\$50,000
Useful life	4 years
ROI=	75%

### **Net Present Value Analysis**

The accounting rate of return does not take into account the time value of money, and the fact that the benefits you receive in future years will be worth less than their nominal or face value because of the opportunity cost of money and inflation. For instance, if I promise to pay you back \$15 one year from now in return for a \$10 loan from you to me today, you would have to take into account at least two facts: 1) you will lose the \$10 you loan me for one year and give up the interest you could have earned in a bank, and 2) inflation will erode the value of money, so the \$15 I pay you next year will be worth less because of inflation.

In net present value analysis, you must first understand the value in today's dollars of a future set of payments (this value is called "the present value"). In net present value analysis, both the opportunity cost of an investment and the inflation factor are summed up and taken into account by the use of a "prime rate" or other bank rate to deflate the value of future payments.

The net present value is defined as:

Present value of total annual benefits—total investment cost.

In Excel, you use the net present value function (npv) to calculate the present value of total future annual benefits. (Unfortunately, the Excel npv function is misnamed and does not give you a true net present value, but in fact returns the present value of a set of payments in the future). To calculate the net present value, take the present value of future payments and subtract the total initial investment (usually made in today's dollars).

In the spreadsheet below, there are future benefits of \$100, \$150, and \$300 in the next three years. The initial investment is \$300, and the interest rate is 6%. Is the investment worth it?

<b>Benefits</b>		
Year 1	Year 2	Year 3
\$100	\$150	\$300
Cost	\$300	
Interest rate	6.00%	
Present value	\$480	
Net present value	\$180	

This investment is “worth it” because in today’s dollars it has a net present value of greater than \$0 and will return, in fact, \$180 today’s dollars in the future.

You can use the Function Wizard to calculate the Excel NPV function. Follow these steps:

1. Click on the cell in the spreadsheet where you want the NPV calculation to appear.
2. Use the Insert/Function menu or the toolbar shortcut Fx.
3. Select Financial functions.
4. Select the NPV function.
5. Fill in the wizard information for the interest rate and the values of the annual payments. You can also enter cell references for these values if you think they might change.
6. Click OK.

## Web Case 2

### TrainOnline.Com

Problem:	Analyze the online training industry
Management skills:	Planning Deciding
Web skills:	Competitive intelligence
File:	TrainOnline_q.xls

TrainOnline.com is a start-up venture founded by a group of training professionals who have decided they would rather be entrepreneurs than employees. CEO Steven Hatch and CFO Elizabeth Johansen—the two main founders—have approached an East Coast venture-capital firm, Stigfield Investing, to provide start-up capital for the Web site. Stigfield Investing believes TrainOnline could be profitable if the financials worked out. Stigfield is worried about the potential number of visitors, the revenue generated by students who would pay for access to the site, and potential operational costs.

The placement officers who started TrainOnline have great track records creating and delivering technical training in a classroom environment. Together the founding team of eight training instructors has a combined experience of more than 80 years in training and course development. They feel confident they can leverage this knowledge into the online training arena. Despite this experienced management team, Stigfield is cautious about investing in start-ups given the recent failures of so many dotcoms.

Stigfield has requested that CEO Hatch and CFO Johansen do additional research on the financials of the online technical training business. Specifically, the investors want a better idea of the overall size of the online training market, and the principal competitors; the levels of traffic at the competing Web sites; and a better idea of what TrainOnline's budget would look like based on the experience of a similar firm. The management team at TrainOnline has asked you to develop the information requested by the investors.

**Tasks:** There are three tasks in this case.

1. Using a Web search engine, identify Web sites that have information about the leading firms in the online technical training industry. Build a spreadsheet of the top five most frequently visited Web sites. A sample spreadsheet has been started for you in TrainOnline\_q.xls. Sort the sites in terms of their unique visitors. In addition to visitors, find out how much revenue each of the top ten sites generates. Identify the major sources of revenue for online technical training sites, such as student course fees, advertising fees, and salaries for instructors. You may not be able to find this detailed information for all top ten sites. Write a short report on your findings.

2. To understand the potential revenue and profit picture for the new company, the investors want you to look at a competitor's financial statements and calculate a series of standard financial ratios. Use New Horizons Computer Learning Centers (New Horizons Worldwide) as the competitor. As a public company, New Horizons is required by the 1934 Securities Act to report its financial results and all other material developments at the company to the Securities and Exchange Commission (SEC).

Go to the New Horizons site and navigate to the SEC filings for the company. To find the SEC filings, scroll to the bottom of the page, click on Site Map, and locate the Company area. Click on the For Investors link, which will bring you to the Corporate Overview page. Click on the SEC Filings link on the left side of the page, and then click on the Click here to continue on to view SEC Filings link. Choose the latest 10-K filing and download the Excel spreadsheet. Once you have downloaded the spreadsheet, locate the Financial Statement worksheet tab, and copy and paste the appropriate data into your spreadsheet to create a Pro Forma Income Statement.

Calculate the following ratios:

- Gross Margin (Gross profit /Total revenues)
- Cost of revenues/Total revenues
- Net Margin (Net income (or Net loss) /Total revenues)
- Sales and Marketing Expense/Total revenues
- General and Administrative Expense/Total revenues

Express all ratios as percentages, and copy the formulas to previous years so that you end up with ratios for three years' worth of experience.

3. Johansen also wants you to create a pro forma profit and loss statement for the start-up company. A pro forma profit and loss statement is used to project the amount of money the business should allocate to various activities. Assume the new company will have first year revenues of \$17 million. Using the five ratios you calculated in Task 2, calculate how much TrainOnline.com must spend for product development, for sales and marketing, and for general and administrative costs, assuming total revenues of \$17 million.



## Tutorial for Web Case 2

This case assumes the reader has already mastered the use of search engines.

### Using the EDGAR Database

EDGAR is major research tool for business and stock analysts as well as ordinary investors. EDGAR provides a treasure trove of information that companies are required to reveal to the public

to ensure efficient and honest capital markets. Only companies that sell stock to the public report to EDGAR. There are many different types of annual, quarterly, and event-driven filings.

To look up a public company, go to [www.sec.gov](http://www.sec.gov) and select “Search for Company Filings.” Then select “Historical EDGAR Archives.” Enter the company name “New Horizons Worldwide” into the text entry box labeled “EDGAR Search: Enter a Search String.”

Search for the latest New Horizons “10-K” filing that contains the last reported year of financial information. Select the html version of the 10-K.

Once you have the html version of the 10-K filing on screen, click on the Annual Report link and look in the table of contents for the location of consolidated financial statements (this section is usually called “Consolidated Financial Statements and Supplementary Data”). Scroll to a table that provides the consolidated statement of operations (the Income Statement).

Scroll down the document until you find a table called “NEW HORIZONS WORLDWIDE, INC. AND SUBSIDIARIES Consolidated Statements of Operations (found in a section called “Consolidated Financial Statements and Supplementary Data”). Select with your mouse all the data from first row labeled “Revenues” to the last row labeled “Net Income (Loss).” Copy the data to the Clipboard (or use [CTRL]+C). Open Excel and paste the data into an Excel spreadsheet.

You will notice that the data you pasted spreads haphazardly across the worksheet and must be organized in columns. Also, the first column of data will be highlighted in blue. Leave the blue highlighting as is, and use the Excel Data Menu to convert the text data into Excel spreadsheet columns.

Click the *Data* menu, and then click the *Text to Columns* command to open the Convert Text to Columns Wizard. In Step 1 of the wizard, be sure that the *Fixed Width* option is selected, and then click the [Next] button. Generally, the default options of the Wizard work well.

Use the Data Preview window to scroll back and forth, and up and down, in the worksheet to see how the columns of numbers appear on the worksheet. Follow the instructions in the top half of the dialog box to add and delete lines to indicate where you want the columns to break. For example, the first break line should appear at the right side of the column that describes each financial category, the second line should appear at the right side of the first year of data, and so on.

When you have set all the break lines, click the [Next] button.

Select the *General* option button in the *Column data format* section near the upper right of the dialog box. Click the [Finish] button to close the wizard.

In the worksheet, delete extra columns and rows as needed to format your categories and data in related groupings and create an attractive format. Delete extraneous formatting symbols and unneeded text. Delete columns containing previous years of data—you are interested only in the latest year’s data. You may need to widen the columns to display all the information properly.

Select just the financial data and format it with the Currency Style button on the Formatting toolbar. Also on the Formatting toolbar, use the Decrease Decimal button to delete the two decimal places. Resave the workbook.

Display all financial ratios as percentages. In this case, you are only interested in the most recent year's data, so you can eliminate the information from earlier years.

### Pro Forma Profit/Loss Statements (Income Statements)

A profit and loss statement (P&L) describes the total revenue and operating expenses of a firm. These statements are also called "Income statements." A "pro forma" P&L is a forecast based on best management judgment either for a new business or for a future year. Generally, a profit and loss statement has the following categories of revenue and expenditures (the starred items are calculated by the user and are not usually a part of the 10-K statement):

#### Revenue:

Net sales	Gross sales revenue minus any returns
Cost of sales	The cost of physical products or services
Gross profit	Sales revenue minus cost of goods

#### \*Gross Profit Margin

**Gross profit divided by net sales (%)**

#### Operating expenses

Marketing and fulfillment.....	Marketing and advertising costs
Technology and content.....	Research and development costs
General and administrative.....	Administrative costs, mostly labor
Stock-based compensation.....	Options programs for employees
Amortization of goodwill and other intangibles.....	Costs associated with purchases of other companies for prices higher than their book value
Total operating expenses.....	Total operating costs
Gain/Loss from operations.....	Gross profit minus cost of operations
<b>*Net Margin</b>	<b>Gain/loss from operations divided by gross profit</b>

#### Other Income/Expenses

Interest income.....	Income from interest bearing accounts
Interest expense.....	Expenses for short term loans
Other income (expense), net.....	Miscellaneous income
<b>Net Gain/Loss</b>	<b>Gross profit minus operating expenses and other incomes/losses</b>

## Web Case 3

### Innovative Benefit Programs

Problem:	Research Internet security and privacy
Management skills:	Research analysis, Decision-making
Web skills:	Business research

Innovative Benefit Programs, Inc. is a regional a firm in Portland, Oregon that administers health insurance and retirement plans for the employees of small to midsize businesses. Innovative does not provide the services, but acts as an agent between businesses and healthcare providers and investment services.

Innovative has achieved moderate success in its twenty-year history. The founders of the company believed that many businesses would prefer to outsource the legwork of researching and maintaining health and retirement plans rather than devote human resources personnel to this work. Their theory was correct, however, the growth of the Internet has allowed Innovative to re-examine its services with an eye toward making the company even more successful.

Caroline Paterno, Director of Customer Service for Innovative, has worked with the IT Department for several years to make the company's Web site as helpful to customers as it can be. However, until now, that is all the Web site has been: a source of information. In the near future, Innovative will launch a new Web site that will allow customers to interact with their accounts online. Some of the new services will include enabling health insurance customers to submit requests for changing their primary care physician or for obtaining referrals. Retirement plan customers will be able to submit requests for changing their contribution amount or for adjusting the allocation of their investment to different funds.

Caroline realizes that this new venture carries a great deal of responsibility for the company. To make such transactions possible, customers will have to submit personal information, such as name, address, phone number, policy or account number, and Social Security number. For the new services to be successful, customers must feel secure in Innovative's ability to protect their personal information. They also must trust that their personal information will not be used for undesirable purposes. Furthermore, Innovative must consider their legal obligations regarding privacy as they pertain to the Internet.

Caroline has determined that she can use the Web to investigate the current state of federal legislation concerning Internet privacy. She will compile details about relevant active legislation in an Access database so that the company can use it as a guideline for designing the new site and setting policy. She will also expand her research on privacy, and prepare a report for the company's CIO that summarizes the advantages and disadvantages of existing and pending legislation to both the company and the consumer. The report will include legal proposals and the main trends in Internet privacy. Ultimately, Caroline will make a recommendation regarding the company's official response to the issue of Internet privacy.



**Tasks:** There are five tasks in this case:

1. Visit <http://www.house.gov> (The United States House of Representatives) and <http://www.epic.org> (Electronic Privacy Information Center) to find active bills on Internet privacy. The House site contains a link to the Library of Congress's THOMAS search facility, which will allow you to search for bills by topic. The EPIC site features Bill-Track, which tracks pending legislation on privacy and Cyber-Liberties in the current session of Congress.
2. Use Microsoft Access to create a database of existing and pending legislation that is relevant to Internet privacy. The database fields you should use are law (or bill) number, law (or bill) name, proposing legislator (sponsor), and a brief summary of the law or bill. The summary field should use the Memo data type. Save the table.
3. Enter the relevant legislation data you have found on the Web in the database table.

**Note:** If you prefer, you may skip ahead to Task 4 and create the form first so you can use it to enter the data.

4. Once you have created the initial database table that organizes the data, create a form to facilitate entering additional data and a report for printing the data. Use all of the fields from the table in the form and in the report.
5. Prepare a report or presentation for the Chief Information Officer that summarizes the advantages and disadvantages of various privacy laws to both the company and the consumer. Also, include recent trends in privacy legislation and its application. Present the views of a pro-privacy organization that you find on the Web. Finally, conclude your report or presentation by making a recommendation about how the company should approach the issue of privacy in creating its new Web site.



### Tutorial for Web Case 3

This case requires you to use the Web to conduct business research. The table below lists URLs that will help you complete the research tasks.

URL	Description
<a href="http://www.house.gov">http://www.house.gov</a>	United States House of Representatives
<a href="http://www.senate.gov">http://www.senate.gov</a>	United States Senate
<a href="http://www.epic.org">http://www.epic.org</a>	Electronic Privacy Information Center
<a href="http://www.epic.org/privacy">http://www.epic.org/privacy</a>	EPIC Privacy page
<a href="http://www.cdt.org/privacy">http://www.cdt.org/privacy</a>	Center for Democracy & Technology
<a href="http://thomas.loc.gov/home/c107query.html#keyword">http://thomas.loc.gov/home/c107query.html#keyword</a>	Library of Congress bill search

**Previous tutorials you may find useful for this case:**

Database Case 1 (page 97)

Database Case 2 (page 109)

Database Case 8 (page 163)

In this case, you are required to place data found on Web pages in an Access database table. You can transfer data by manually keying it into the table or using copy and paste techniques. To copy and paste data from a Web page into a database table, use the mouse to drag over the piece of data, such as a bill number or description, on the Web page. Once the piece of data is selected (highlighted in blue), use the Copy command on the Edit menu in the browser to copy the selection to the Clipboard. You can also use [ctrl]+C to execute the copy command. Then switch to Access, click in the appropriate field, and use the Paste command on the Edit menu in Access (or [ctrl]+V) to paste the copied data.

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## Web Case 4

### Willamette Investments

Problem:	Prepare a financial analysis of two publicly held companies based on data from Web sources
Management skills:	Planning Deciding
Web skills:	Financial analysis

Willamette Investments is a financial advising firm in Salem, Oregon. Willamette encourages clients to invest for long-term capital gains. Clients may call, visit, or use Willamette's Web site to get advice about stocks they want to buy. Rob Adolfo, who owns Adolfo Consulting, which consults with owners on the design and set-up of restaurants, wants to invest in a specialty beverage company. Rob believes that the long-term market for restaurants that offer brand name specialty drinks like coffee and tea is increasing, and that patrons will come to expect such items on the menus of restaurants around the nation.

But Rob knows very little about how to analyze potential specialty drink investments. He has retained Willamette to do some financial research for him on two of the leading specialty drink companies in the United States: Starbucks Corporation and Diedrich Coffee, Inc. Rob would like to invest in one of these companies, but he does not know which one is the better investment.

- *Diedrich Coffees* has over 400 coffeehouses in the United States and 10 other countries. It is the number two retailer of specialty coffees behind Starbucks. Diedrich's outlets operate under the brands Diedrich Coffee, Gloria Jean's, and Coffee People. The company also supplies wholesale coffee to chain restaurants (including Ruby Tuesday and Ruth's Chris Steak House), office coffee suppliers, and other hospitality and specialty retail customers. Chairman Paul Heeschen controls 32% of Diedrich Coffee. Its stock trades on the NASDAQ.
- *Starbucks Corporation* is the world's #1 specialty coffee retailer. It operates, licenses, and franchises more than 7,200 coffee shops in more than 30 countries. The shops offer a variety of coffee drinks, along with food items and other beverages. The outlets also sell whole bean coffee and branded coffee accessories. In addition to its shops, the company sells beans through grocery stores and licenses its brand for other food and beverage products. It also trades on the NASDAQ.

To make sound recommendations to Adolfo, Willamette's analysts will examine two key financial documents of the two companies: the income statement and the balance sheet, which were first introduced in Spreadsheet Case 3. From that case, recall the following types of financial statements:

- Income statements (also called operating statements) summarize the income, expenses, and profits (or losses) of businesses for a period, usually a year, quarter, or month.

- Balance sheets identify the assets, liabilities, and shareholders' equity of a firm at a particular point in time. The difference between assets and liabilities is net worth or equity (literally what the organization is worth net of all other factors).

As you did in Spreadsheet Case 3, you must calculate a number of financial ratios based on the financial statements of these two companies. Before doing this case, review the descriptions and formulas that appear in Spreadsheet Case 3 for the following ratios:

- Current Ratio
- Quick Ratio (or "Acid Test")
- Total Assets Utilization
- Debt Ratio
- Return on Total Assets (ROA)
- Return on Equity (ROE)
- Profit Margin
- Price/Earnings Ratio

**Tasks:** There are two tasks in this case:

1. Obtain the financial statements of the two companies, Diedrich Coffee and Starbucks, and import the statements to an Excel spreadsheet. Go to the Security and Exchange Commission's Web site ([www.sec.gov](http://www.sec.gov)) and obtain the data from each company's latest 10-K filing. **Follow the directions for capturing the data at EDGAR and pasting into an Excel spreadsheet given in the Tasks section for Web Case 2.**

Copy and paste the income statement and balance sheet, one at a time, for the first company—Diedrich Coffee, Inc.—onto a blank Excel worksheet. Copy the income statement first, and the consolidated balance sheet second. Place the balance sheet below the income statement in your spreadsheet. Immediately save the worksheet with an appropriate file name (e.g., *WebCase4 Diedrich.xls*).

Repeat these steps for Starbucks. Create a new spreadsheet file *WebCase4 Starbucks.xls*.

2. Below the bottom of the financial statements, calculate the first seven financial ratios outlined above for each company. Look up the most current price/earnings ratio on the Web for both companies and manually enter it into the spreadsheet.

In a few paragraphs, write an analysis of both companies. Based on the information provided in this case, which firm has the strongest set of ratios? Which would make the better investment? Review the financial statements of both companies for any items that might help explain their financial condition. Include a table of your financial ratios for both companies as supporting evidence.

You may also use financial content Web sites like *Finance.Yahoo.com*, *Bigcharts.com*, *Hoovers.com*, *Smartmoney.com*, etc. to find additional information on these companies. The 10-K statement also contains very insightful sections on firm strategy, operations, and future prospects.



## Tutorial for Web Case 4

Web Case 4 requires skills for obtaining financial data from the SEC EDGAR database that are covered in the Tutorial for Web Case 2. The new skill in this case is learning how to read a typical consolidated balance sheet that is a part of the 10-K statement.

### Consolidated Balance Sheets

A balance sheet describes the assets and liabilities (debts) of a firm. Because the assets must equal the liabilities, the statement is called a “balance” sheet. Generally, an SEC 10-K balance sheet contains the following types of information:

<b>Summary Balance Sheet Data</b>	
<b>Assets</b>	
Cash and cash equivalents equivalents	Cash or immediately available funds
Marketable securities.	Usually stock in other companies
Other assets	Real estate and office equipment
Total assets	
<b>Liabilities</b>	
Current liabilities (short term debt)	Payments required in the current year
Long-term debt	Usually long term bonds
Stockholders' equity	Shares issued to stock holders

Along with information on the SEC 10-K income statement, you can calculate the ratios required in this case.

## Web Case 5

### Proxis Corporation

Problem: Analyze the communications market

Management skills: Data analysis, Strategizing

Web skills: Market research

Proxis Corporation is a regional communications company serving eight states. Proxis provides a number of communications services, the main ones being local and long distance telephone service, cellular phone service, and cable television. The company has known for some time that it has the infrastructure in place to add Internet service to its stable of services. Until now, it has resisted this move due to a saturated market. However, a number of local and regional Internet service providers have gone out of business in the last two years, leaving a gap in the marketplace.

Proxis' CEO wants to cautiously approach an entrance into the Internet service market. Proxis' Marketing Director, Ian Masters, knows he must consult hard statistics to make the proper recommendations to the CEO.

Ian's first goal is to determine whether Proxis should even consider expanding its services in the first place. For this, he intends to research the growth of Internet usage since it became a common tool for both business and home users. He wants to know if Internet usage will continue to increase or if it will plateau in the near future.

Next, Ian must devise a marketing strategy, assuming that Proxis will choose to introduce an Internet service brand. He has already given the task some thought, and he has determined that Proxis should begin by targeting its existing customers. Since Proxis phone service users and cable subscribers are already familiar with the company, they would likely trust Proxis as their first Internet service provider or as an alternative to their current provider. Targeting existing customers would initially allow Proxis to quickly build a customer base for its Internet brand at a lower cost than if the company tried to target the general public. Including all of its services, Proxis already has a database of 5 million customers. Acquiring a database of names that large is an expense the company would prefer to avoid at the stage of the venture.

Going further, Ian would like to determine which segment of Proxis' existing customer base should be most aggressively targeted with promotional material for a new Internet service. He has already narrowed down the choices to cellular customers and cable subscribers, who are more technically savvy. He has found no data indicating a significant growth in landline telephone use, and people who have only landline telephone service are far less likely to want Internet service than cell phone users. Ian's approach will be to target the customer base that is showing more growth in recent years. He believes that if people are already embracing technology products or services, they are more likely to continue spending money on technology.

The result of Ian's research will be a full-scale report to the CEO that includes an outline, statement of goal, presentation of the facts, and concluding statements. Hard statistics will be introduced in written arguments and illustrated with spreadsheets and charts.

**Tasks:** There are seven tasks in this case:

1. Go to relevant government Web sites to find statistics on Internet usage. Be certain you can answer these questions: Has the number of Internet users increased consistently over the past few years? Has the number of people using the Internet at work increased during that time? Has the number of people using the Internet at home also increased? What are the statistics regarding "intensity of use" or hours using the Internet?
2. Transfer the statistical data you have found into a spreadsheet file either by copying and pasting it from a Web page or by manually keying it in. Some online resources will also allow you to download data tables directly into an Excel file. If you wish to cut and paste data from online sources into an Excel spreadsheet, consult the instructions in Web Case 2 first.
3. Display the Internet growth data you have found in the form of a chart in the spreadsheet file.
4. Go to relevant government Web sites to find statistics that track the number of cellular phone subscribers and the number of cable television subscribers over the last several years. Be certain you can determine which is the more promising market based on Ian's criteria.
5. Transfer the subscriber comparison data you have found into a separate worksheet in the same spreadsheet file you used for the Internet growth data. Display the subscriber data in the form of a chart.
6. Search the Web for companies or services that sell mailing lists. Determine what the approximate cost would be to acquire a list of potential customer names equal to the number of customers Proxis already has (5 million). Decide whether you can use this figure to fortify the position of targeting existing customers first.
7. Write a report for the CEO as described above (include an outline, statement of goal, presentation of facts, including your spreadsheets and charts, and concluding statements). Do not forget to cite your statistical sources.



## **Tutorial for Web Case 5**

A great source for statistics like the ones required for this case is the U.S. Census. The Census Web site is located at <http://www.census.gov>. From the Census home page, you can access the *Statistical Abstract of the United States* (<http://www.census.gov/statab/www/>). From the Statistical Abstract home page, pay particular attention to the *USA Statistics in Brief* and *Frequently Requested Tables* links in the section titled “*Selected features from the Statistical Abstract.*” Also, the Pew Foundation Internet and American Life Project conduct regular surveys on Internet usage ([www.pewinternet.org](http://www.pewinternet.org)).

Use of the suggested sources is not mandatory, but they are stable sources that provide accurate, user-friendly data. As a whole, U.S. government sites are very useful for this type of research.

### **Previous tutorials you may find useful for this case:**

Spreadsheet Case 1

Spreadsheet Case 5