CHAPTER ONE
INFORMATION SYSTEMS AND BUSINESS STRATEGY

Information is everywhere. Information is a strategic asset. Without information, an organization simply could not operate. This chapter introduces students to several core business strategies that focus on using information to gain a competitive advantage, including:

- Competitive advantages
- Porter's Five Forces Model
- Porter's three generic strategies
- Value chain
- Organizational structures

Many of these concepts and strategies will be new to your students. Be sure to explain to your students that this chapter offers an introduction to these concepts and they will gain a solid understanding of the details of these concepts as they continue reading the text.

This chapter also gives students an overview of the opportunities in MIS over the next number of years in the Canadian marketplace.

SECTION 1.1 – INFORMATION SYSTEMS IN BUSINESS
- Information Systems' Role in Business
- Information Systems Basics
- Roles and Responsibilities in Information Systems

SECTION 1.2 – BUSINESS STRATEGY
- Identifying Competitive Advantages
- The Five Forces Model – Evaluating Business Segments
- The Three Generic Strategies – Creating a Business Focus
- Value Chain Analysis – Targeting Business Processes
- Business Driven Information Systems and Business Strategy

1.1   Explain the role information systems have in business.
Information technology and information systems are everywhere in business. Information systems are an important enabler of business success and innovation. This is not to say that IS equals business success and innovation or that IS represents business success and innovation. Information systems are most useful when they leverage the talents of people. Information systems in and of themselves are not useful unless the right people know how to use and manage them effectively.

1.2   Explain information system basics and the responsibilities of senior IS personnel.
- Chief Information Officer (CIO) oversees all uses of IS and ensures the strategic alignment of IS with business goals and objectives.
- Chief Technology Officer (CTO) is responsible for ensuring the throughput, speed, accuracy, availability, and reliability of IS.
- Chief Security Officer (CSO) is responsible for ensuring the security of information systems.
- Chief Privacy Officer (CPO) is responsible for ensuring the ethical and legal use of information.
- Chief Knowledge Office (CKO) is responsible for collecting, maintaining, and distributing the organization's knowledge.

1.3   Describe the job market in Canada over the next five years for MIS and ICT professionals and identify where the opportunities are.
The job market for MIS and ICT professionals in Canada is strong for the next five years and the opportunities exist in all regions of Canada. The areas that will see demand include computer and information systems managers, telecommunications carrier managers, and information systems analysts and consultants. Students should also look for co-op and practicum opportunities during their studies as these will make them more attractive to prospective employers.

1.4   Explain the various ways organizations can assess their competitive advantage (e.g., the Five Forces Model, three generic strategies, and value chain analysis).
Competitive advantages are typically temporary because competitors often seek ways to duplicate the competitive advantage. In turn, organizations must develop a strategy based on a new competitive advantage.
- Buyer power – high when buyers have many choices of whom to buy from and low when their choices are few
- Supplier power – high when buyers have few choices of whom to buy from and low when their choices are many
- Threat of substitute products or services – high when there are many alternatives to a product or service and low when there are few alternatives from which to choose
- Threat of new entrants – high when it is easy for new competitors to enter a market and low when there are significant entry barriers to entering a market
- Rivalry among existing competitors – high when competition is fierce in a market and low when competition is more complacent

Organizations typically follow one of Porter's three generic strategies when entering a new market. (1) Broad cost leadership, (2) broad differentiation, (3) focused strategy. Broad strategies reach a large market segment. Focused strategies target a niche market. Focused strategies concentrate on either cost leadership or differentiation.

A business process is a standardized set of activities that accomplish a specific task, such as processing a customer's order. The value chain approach views an organization as a chain, or series, of processes, each of which adds value to the product or service for each customer. The value chain helps an organization determine the "value" of its business processes for its customers.

1.5   Describe how business-driven information systems can increase a company's competitive business strategy.

Business personnel possess expertise in functional areas such as marketing, accounting, and sales. IS personnel have the technological expertise. This causes a communications gap between the two. IS personnel have their own vocabularies consisting of acronyms and technical terms. Business personnel, including human resources personnel, have their own vocabularies based on their experience and expertise. For both sides to have effective communications, the business personnel must seek to achieve an increased level of understanding of IS, and the IS personnel must seek to achieve an increased level of understanding of the business.

Functional areas are anything but *independent* in a business. In fact, functional areas are *interdependent*. Sales must rely on information from operations to understand inventory, place orders, calculate transportation costs, and gain insight into product availability based on production schedules. For an organization to succeed, every department or functional area must work together sharing common information and not be a "silo." Information systems can enable departments to more efficiently and effectively perform their business operations.

SECTION 1.1
INFORMATION SYSTEMS IN BUSINESS

This chapter provides an overview of *Business Driven Information Systems (BDIS)* along with anticipated learning objectives for students. Explain to your students that the goal of this chapter is to get them excited about BDIS and all the different business and technology concepts they are going to learn. Let your students know that they are going to be introduced to many new concepts that they might be unfamiliar with; however, these concepts are discussed in detail throughout the text.

CLASSROOM OPENER
GREAT BUSINESS DECISIONS – Apple's Decision to Develop the First Saleable Personal Computer (PC)

Like all great computer companies, Apple began its life in a garage. In 1977, Steve Jobs and Steve Wozniak built the Apple 1, regarded by many as the first real personal computer. This founded the Apple Company and the invention of the Apple 2 and the Apple Macintosh. Apple's key goal was to make computers accessible to ordinary people. Jobs and Wozniak captured an opportunity and changed the world through a combination of good fortune and technical and marketing brilliance.

Instead of writing commands in computer code, Apple owners invented a mouse to click on easily recognizable icons – for example, a trash can and file folders. Other companies were quick to copy Apple's competitive advantage, including Microsoft.

The two founders eventually parted, with Wozniak leaving the company to become a teacher and Jobs continuing with the launch of the Apple Macintosh. Unfortunately, Macintosh captured only 20 percent of the desktop market, while Microsoft captured 80 percent of the desktop market with its MS-DOS operating system.

One newspaper described Jobs as a "corporate Huckleberry Finn" and said his early business exploits had already made him part of American folk history. John Sculley, former Pepsi chairman, removed Jobs from Apple in 1985. Sculley was removed from Apple in 1993. Eventually, after a 13-year exile, Jobs returned to Apple in 1998. The man who founded the company had come full circle and was now its only hope for survival.

Jobs' return brought the creation of the iMac and Apple rediscovered its inventive originality. The iMac sold 278,000 units in the first six weeks and was described by *Fortune* as "one of the hottest computer launches ever." The iMac and Jobs' return contributed to doubling Apple's share prices in less than a year.

CLASSROOM OPENER
GREAT BUSINESS DECISIONS – Sam Walton's Discounting of America
Walmart is one of the largest corporations in the United States. Walmart does not produce a single item; the company uses strategic supply chain management to disrupt the retail industry. Wal-Mart's generic strategy of low cost provider is paying-off big time. Any organization wanting to compete in the 21st century must study Walmart and learn how to compete in new and different ways.

Samuel Moore Walton lived in the same neighbourhood in Bentonville, Arkansas, for forty years. Walton was the sort of man that would rather borrow a newspaper than pay a quarter for a new one. He was also the sort of man that would invite a struggling young family out to lunch with his family every Sunday.

Sam Walton controlled over 20 percent of Walmart's stock, and Sam Walton appeared on Forbes 400 with a net worth of $2.8 billion in 1985 (the holdings are now worth $28 billion). Of all the inventions that helped Sam Walton achieve success and billionaire status, his greatest invention as a CEO was that he himself did not change. Sam managed his 40,000 employees as equal associates, and it was said that only his family meant more to him than his beloved associates. One manufacturer who worked for Sam for decades stated "One of Sam's greatest contributions to Wal-Mart was his attitude toward experimentation. He constantly encouraged us to experiment on

a small basis and if the idea worked, roll it out. If it failed, try something else. It was his attitude of keep trying, and don't be afraid of failure that made us all so successful."

Sam Walton succumbed to cancer in 1992, and the news was sent via satellite directly to the company's 1,960 stores; when the announcement played at some stores, clerks started crying. The *New York Times* obituary estimated Sam's fortune at the time of his death at $28 billion. However, this fortune didn't mean as much to Sam Walton as the news that one of his beloved Walmart associates, a cashier, had $262,000 in her retirement account after working for Walmart for twenty-four years.

CLASSROOM EXERCISE
Understanding the Relevance of Technology in Business

This is a great exercise to begin the course. It clearly demonstrates why anyone involved in business must understand technology. It can be a real revelation for students who do not see the need for taking an IT course. This exercise is included briefly in the first paragraph of the text. Having your students perform this exercise on their own is so powerful that we recommend completing it in addition to reading the section in the text.

Bring in several copies of *BusinessWeek, Fortune, Fast Company,* or any popular business magazine. The magazines do not have to be current. Provide a marking tool such as a small set of Post-It Notes. Ask for a few volunteers and have the students review the magazine and stick a Post-It Note on each technology-related article, advertisement, etc. When the student has completed this task, the magazine will be covered in Post-it Notes, clearly demonstrating that technology is everywhere in business, even in the popular business magazines such as *BusinessWeek*.

Since this task can be time consuming, you can put in the Post-It Notes prior to class and simply show your students the completed magazine. You can have one student sit in the front of the class and begin the exercise, placing Post-It Notes on a copy of *BusinessWeek*. After they have completed several pages on their own, you can produce the same "completed" magazine with all of the Post-It Notes. This saves classroom time and still reinforces the point that technology is everywhere in business.

Be sure to reinforce that these are business magazines, not technology magazines. Yet they are completely filled with technology – which is clearly demonstrated by the Post-It Notes. How can any business student today possibly argue that they do not need to know or understand technology when faced with a magazine, such as *BusinessWeek*, that is filled with technology? Read a few of the articles or advertisements. Ask how many of your students are familiar with Siebel, Oracle, or PeopleSoft and can articulate what they can do for a company?

The goal of this course is to help your students understand the business side of technology. Being able to understand all of the technology articles in *BusinessWeek* is one of the benefits your students will receive upon completion of the course.
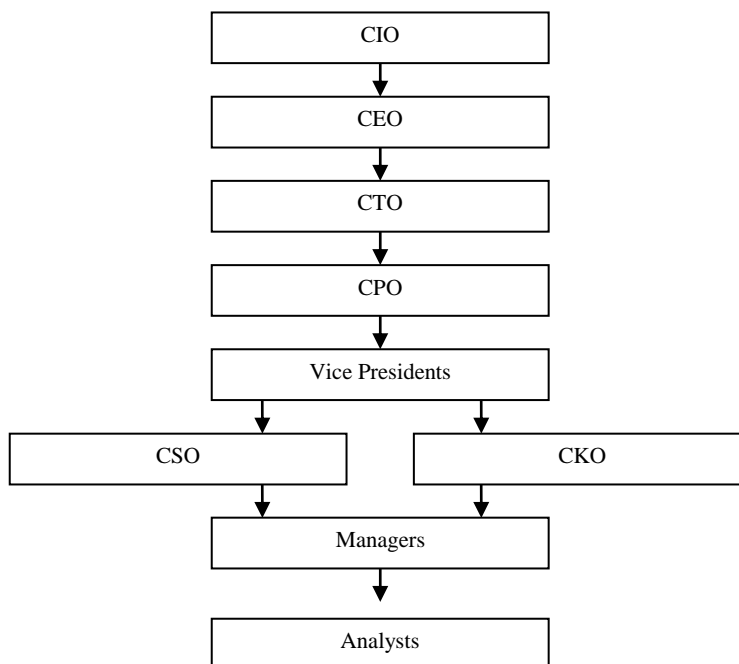
CLASSROOM EXERCISE
Reorganizing an Organization

The AAA Management Company specializes in the management of rental properties and generates over $20 million in revenues each year and has over 2,000 employees throughout the

United States, Canada, and Mexico. The company has just hired a new CEO, David Paul. David is planning to reorganize the company so that it operates more efficiently and effectively. Below is the new organizational structure that he plans to present to the board of directors on Monday. Break your students into groups and ask them to explain the advantages and disadvantages of such a reporting structure. Ask them to reorganize the reporting structure in the way they feel will be most beneficial to the operations of the company, being sure to give their justifications for the new structure. Student answers to this exercise will vary.

AAA Management's New Organizational Structure

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          │  Vice Presidents │
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  ┌──────────────┐  ┌──────────────┐
  │     CSO      │  │     CKO      │
  └──────┬───────┘  └──────┬───────┘
         ▼                 ▼
          ┌──────────────────┐
          │     Managers     │
          └────────┬─────────┘
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          ┌──────────────────┐
          │     Analysts     │
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Part Two
Will your proposed structure work for a video distribution company or will you need to revamp your structure?

CORE MATERIAL
The core chapter material is covered in detail in the PowerPoint slides. Each slide contains detailed teaching notes including exercises, class activities, questions, and examples. Please review the PowerPoint slides for detailed notes on how to teach and enhance the core chapter material.

OPENING CASE STUDY QUESTIONS
Information Technology Helps LCBO Transform Itself
1. **What might have happened to the LCBO if its top executives had not supported the investment needed in IT?**

As with the principles of project management, support from top executives is a requirement for all projects to succeed and thus if this support did not exist at the LCBO the project would in all likelihood have failed.

2. **Evaluate the effects on the LCBO if its inventory control and warehouse management systems fail.**
   These systems are essential to the success of the LCBO, especially with the addition of new channels like Vintages.com. Failure of these systems would result in difficulties in servicing their customers. What effect this would have on its revenues is questionable because the LCBO has almost a monopoly position in Ontario. The government has not privatized the industry, though there is the privately owned Beer Store and some small specialty wine stores that are privately run, in addition to special rules for wineries. System failure could lead to demands for complete privatization as has been done in Alberta.

3. **Would it be unethical for the LCBO to share its customer information from Vintages.com with other government agencies or departments?**
   The quick answer here is yes and it in addition to being unethical, this would also be illegal as this activity is regulated by FOIP and PIPEDA in Canada.

4. **Is Mr. Kelly fulfilling his role as senior vice president of information (CIO) correctly?**
   Yes Mr. Kelly is fulfilling his role as senior vice president of information correctly. Students will have different justifications for their answers.

SECTION 1.2
BUSINESS STRATEGY

This section discusses how an organization can identify competitive advantages using tools such as Porter's Five Forces, three generic strategies, and value chains. Gaining competitive advantages are critical for organizations. Organizations also must understand that competitive advantages are typically temporary since competitors are quick to copy competitive advantages. This is seen in the following example in addition to the examples mentioned in the text:

- United was the first airline to offer a competitive advantage with its frequent flyer mileage (this first-mover advantage was temporary)
- Sony had a competitive advantage with its portable stereo systems (this first-mover advantage was temporary)
- Microsoft had a competitive advantage with its unique Windows operating system
- Ask your students if Microsoft still has a competitive advantage with its Windows operating system
    - Ans: Perhaps – primarily due to its first-mover advantage since it is difficult to switch operating systems and users face interoperability issues if they are using different operating systems at the same organization.
    - How many students in your class are currently using Windows?
    - What are the competitors to Windows? Ans: Linux and Macintosh
    - Why are there only three primary competitors (Microsoft, Macintosh, and Linux) in this large operating system market?

CLASSROOM OPENER
GREAT BUSINESS DECISIONS – Cyrus McCormick's Reaper
On a hot summer day in 1831, several dozen farmers and hired labourers gathered in a wheat field in Virginia to watch a horse-drawn wood-and-iron device mow down rows and rows of golden wheat. On this day, twenty-two-year-old Cyrus McCormick demonstrated the reaper that his father invented and changed history as the mechanization of farming began. Soon the process of industrialization began, which turned the nation's economy into the world's most productive workforce. As the historian William Hutchinson noted, "Of all the inventions during the first half of the nineteenth century which revolutionized agricultures, the reaper was probably the most important."

Interestingly, the McCormicks were not the only individuals to build and develop a reaper. In fact, many other companies and individuals developed similar technology; however, Cyrus McCormick invented the business of making reapers and selling them to the farmers of America and foreign countries. His real genius was in the area of gaining and protecting patents for his technology. McCormick turned the reaper into a commercially viable product and introduced many new business practices including free trials, money-back guarantees, and instalment payment plans.

CLASSROOM OPENER
GREAT BUSINESS DECISIONS – Henry Luce Decides to Rank Companies in the Fortune 500

Henry Luce founded *Time* magazine in 1923 and *Fortune* magazine in 1929. Luce decided to create a ranking of America's top 500 companies, called The Fortune 500, which has served as the corporate benchmark for the twentieth century – as well as being a clever marketing tactic for the magazine. The Fortune 500 remains a powerful barometer of who's up and down in the corporate world. It is also a brilliant marketing tool since every single time its name is mentioned, so is the name of the magazine. However, being ranked on the Fortune 500 does not guarantee that the organization will achieve future success, and its measures of current achievement can also be limited and a bit confusing.

BusinessWeek magazine created a similar ranking by introducing its biannual ranking of business schools. The issue routinely outsells all other issues of the magazine in the year.

CLASSROOM EXERCISE
Analyzing Porter's Five Forces
Porter's Five Forces is an easy framework to understand and offers students a quick way to analyze a business. Porter's Five Forces is also reinforced throughout the text and it is important that your students have a solid understanding of each force. For this exercise, break your students into groups and ask them to choose two products to perform a Porter's Five Forces analysis. The two products must compete in the same market.

Potential Products
- Laptop Computer and Desktop Computer
- PDA and Laptop Computer
- iPod and Walkman
- DVD Player and VCR Player
- Digital camera and Polaroid Camera
- Cell Phone and Blackberry PDA
- Coca-Cola Plastic Bottle and Coca-Cola Glass Bottle
- GPS Device and a Road Atlas
- Roller skates and Rollerblades
- Digital Books to Printed Books
- Digital Paper to Paper

CLASSROOM OR INDIVIDUAL EXERCISE
Personal Value Proposition
In today's work world a person's personal competitive advantage is extremely important, and a student who understands what they have to offer an employer has a distinct advantage when it comes to looking for a job and starting their career. The purpose of this exercise is to allow students to develop their own personal value proposition. For this exercise ask students to look at what their own personal competitive advantage is. Ask them to use Porter's five forces or the value chain to develop a picture of what value they offer to employers and develop a picture of their own personal value proposition.

CORE MATERIAL

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OPENING CASE STUDY QUESTIONS
Information Technology Helps LCBO Transform Itself

5. **Which of Porter's Five Forces is the LCBO trying to use to establish and maintain its competitive advantage?**

The answers will be interesting depending on whether the students understand that the LCBO is a government organization with a near monopoly on liquor sales in Ontario. It does have some private competition in wine sales, which sees it dealing with the bargaining power of buyers with the creation of vintages.com. Even as a near monopoly it must also consider the threat of substitutes.

6. **What does the LCBO's primary value chain look like using specific examples of its value chain to describe it?**

3. **Which of the three generic strategies is the LCBO using?**

The LCBO is using a focused strategy with it wine sales as it has the most competition in the wine market, but it is a narrow market. In hard liquor the LCBO has a monopoly.

4. **How does the fact that the LCBO is a monopoly affect its use of Porter's Five Forces? Its use of the Three Generic Strategies?**

The LCBO no longer is a full monopoly but it does have a monopoly with hard liquor sales. . The new processes and channels being offered by the LCBO mean that the LCBO is looking at Porter's Five Forces and his generic strategies in developing its new marketing strategies.

APPLY YOUR KNOWLEDGE PROJECTS

Try one of the following Apply Your Knowledge projects to engage students and reinforce chapter material and concepts.

Project Name	Project Type	Focus Area	Skill Set
Capitalizing on Your Career	Business	IS/MIS	Careers in IS
Achieving Alignment Success	Business	General Business	Business—IS Alignment
Market Dissection	Business	Strategy	Leveraging Is for Business Success

Porter's Five Forces	Business	Strategy	Five Forces Model
Reorganizing an Organization	Business	IS Management Personnel	Roles and Responsibilities in IS

CHAPTER ONE
CLOSING MATERIAL

CLOSING CASE ONE
Say "Charge It" with Your Cell Phone

Additional Case Information

The race to build this technology is still going strong. Cell phone covers no longer serve as just mere removable facades or add-ons to personalize your phones, now they are your very own digital paying devices. We are starting to see people waving their cell phones, not just to get somebody's attention, but also to pay up and shop as well. MasterCard has developed the technology that allows devices to communicate merely by tapping one device with the other and this technology is allowing cell phone covers and credit card readers to communicate over the air. MasterCard has also developed new credit card technology that allows the credit card to be read without being swiped on a reading machine.

1. **Do you view this technology as a potential threat to traditional telephone companies? If so, what counterstrategies could traditional telephone companies adopt to prepare for this technology?**
   Traditional telephone companies have lost a large part of their market share, and the associated revenues, to cell phone companies. If this new technology attracts even more customers to the cell phone market, the traditional telephone companies stand to lose additional market share and revenues. For this reason, this type of technology is a definite threat to the traditional telephone companies. The traditional telephone companies will have to find new ways to entice customers. One possibility would be to implement the ability for the home phone owner, who is also an ISP customer, to purchase online retail goods and have the charge applied to their home telephone bills.

2. **Using Porter's Five Forces describe the barriers to entry and switching costs for this new technology.**
   The barriers to entry include the new technology (special chip for the phone) required to support associating a cell phone with a credit card, creating partnerships between the credit card company and the cell phone company, minimizing security issues associated with the technology, and gaining consumer trust. One of the biggest barriers to entry will be convincing cell phone users that the technology is secure. How will lost and stolen cell phone and credit card bills be handled? A person with a stolen cell phone could now purchase all kinds of goods on the credit card. Will this be the consumer's responsibility? Would you be willing to associate your credit card with your cell phone?

3. **Which of Porter's three generic strategies is this new technology following?**

This technology is following a differentiation strategy for a broad market.

4. **Describe the value chain of using cell phones as a payment method.**
   The value chain approach views an organization as a series of processes, each of which adds value to the product or service for each customer. Using a cell phone as a payment method would add value to the primary value activities because it would become easier for customers to purchase products. When customers simply swipe their phone to pay for a product they are receiving a value-added benefit from this technology.

5. **What types of regulatory issues might occur due to this type of technology?**
   Typical credit card regulatory issues would most likely be enforced to cell phone spending such as not being allowed to purchase illegal goods such as gambling (lottery tickets) on credit, cigarettes under the age of 18, or alcohol under the age of 21. Punishment for using a stolen cell phone to purchase goods would be enforced by law. There might even be spending limits on cell phone purchases similar to the limit on ATM cards to only $400 a day withdrawals.

CLOSING CASE TWO
Innovative Business Managers

1. **Choose one of the companies listed above and explain how it could use a CIO, CTO, and CPO to improve business.**
   - Chief Information Officer (CIO) oversees all uses of IS and ensures the strategic alignment of IS with business goals and objectives.
   - Chief Technology Officer (CTO) is responsible for ensuring the throughput, speed, accuracy, availability, and reliability of IS.
   - Chief Security Officer (CSO) is responsible for ensuring the security of information systems.
   - Chief Privacy Officer (CPO) is responsible for ensuring the ethical and legal use of information.
   - Chief Knowledge Office (CKO) is responsible for collecting, maintaining, and distributing the organization's knowledge.

   Answers to this question will vary. The important part of the answer is the student's justification as to why the company will achieve business success through the use of a CIO, CTO, or CPO.

2. **Why is it important for all of DreamWorks' functional business areas to work together? Provide an example of what might happen if the DreamWorks marketing department failed to work with its sales department.**
   If the functional business areas of an organization do not work together the business will remain siloed and gaining an enterprise-wide view of the organization would be impossible. Sales must work with marketing to determine which incentives and discounts should be offered. Accounting must work with finance to make solid strategic decisions. MIS must work to support all of the departments across the organization.

   Sales is the function of selling a good or service and focuses on increasing customer sales, which increases company revenues. A salesperson has the main activity of selling a product or service. Many industries require a license before a salesperson can sell the products, such as real estate, insurance, and securities.

Marketing is the process associated with promoting the sale of goods or services. The marketing department supports the sales department by creating promotions that help sell the company's products. Marketing communications seek to build product or service awareness and to educate potential consumers on the product or service.

If sales and marketing failed to communicate and work together the marketing department might develop products and discounts that did not correlate to what was occurring in the field and what the salespersons were actually selling. Sales might sell products that are not developed or offer discounts that are too low causing the firm to lose money. At DreamWorks, the marketing department could market a film that the sales department had not heard about and was unprepared to sell. This could include marketing a kid's movie without having negotiated the associated happy meal toys at McDonalds or local toy store.

3. **Why is information technology important to an organization like the Toronto Blue Jays?**
   Every organization needs information to remain successful. Without information the company would have a difficult time understanding its players, competitors, and business success and failures. The Toronto Blue Jays is a business and just like any other business it requires information to keep it running. As more and more sports offer customers a new experience, such as new indoor football teams, lacrosse teams, soccer teams, the baseball market share is maturing and possibly beginning to decline. It must find new ways of attracting and keeping customers. Updating fans through MP3 files on statistics and players is one way it could use a new type of technology to help grow its business.

4. **Which of Porter's Five Forces is most important to Home Depot's business?**
   All of Porter's Five Forces are important to Home Depot's business so answers to this question will vary. The important part of the answer is the student's justification as to why the force is important to Home Depot's business.

5. **Which of the three generic strategies is PepsiCo following?**
   PepsiCo is following a broad differentiation strategy.

6. **Explain the value chain and how a company like GE can use it to improve operations.**
   A business process is a standardized set of activities that accomplish a specific task, such as processing a customer's order. To evaluate the effectiveness of its business processes, an organization can use Michael Porter's value chain approach. An organization creates value by performing a series of activities that Porter identified as the value chain. The value chain approach views an organization as a series of processes, each of which adds value to the product or service for each customer. To create a competitive advantage, the value chain must enable the organization to provide unique value to its customers. In addition to the firm's own value-creating activities, the firm operates in a value system of vertical activities including those of upstream suppliers and downstream channel members. To achieve a competitive advantage, the firm must perform one or more value-creating activities in a way that creates more overall value than do competitors. Added value is created through lower costs or superior benefits to the consumer (differentiation). GE can use the value chain to create best-in-class processes giving it a competitive advantage over its competition.

The World is Flat – Thomas Friedman
Additional Case Information

The MIT Web site offers a video lecture by Thomas Friedman. Try showing the video to your students or assign it as homework. Friedman is an entertaining speaker and your students will enjoy his lecture.
http://mitworld.mit.edu/video/266/

1. **Do you agree or disagree with Friedman's assessment that the world is flat? Be sure to justify your answer.**

There is no correct answer to this question. The important point is that your students can justify their point of view. Some students will agree with Friedman that technology has made the world flat. Others, will disagree with Friedman stating that there are still many people that do not have access to technology and for them the world is still round.

2. **What are the potential impacts of a flat world for a student performing a job search?**

Negative: In a flat world it is far more difficult to get a job because competition is increasing at an incredible rate. There are 1 billion people online in 2006. It is anticipated that 4 billion people will be online by 2010. As the next 3 billion people come online over the next 4 years competition is going to dramatically increase.

Positive: Students can now perform a global job search right from their apartment. Students in Chicago can accept jobs all over the world without ever leaving their apartment. They can even work remotely and continue to live in Chicago while working for a company based in Japan.

3. **What can students do to prepare themselves for competing in a flat world?**

Learning about information technology and how they can use IT to gain a competitive advantage in their industry or for their organization is key. Most organizations operate through the use of technology and understanding how business and technology relate will help students achieve success.

4. **Identify a current flattener not mentioned on Friedman's list.**

The answer to this question will vary. A few include:
- Cheaper technology, such as the $100 laptop from MIT, allowing more people access to the Internet
- Video phones and collaboration tools allowing people to meet face-to-face even when they are in different parts of the world
- Technologies such as Voice-over-IP that offer a cheap alternative to traditional long-distance carriers

MAKING BUSINESS DECISIONS

Instructor Note: There are few right or wrong answers in the business world. There are really only efficient and inefficient, and effective and ineffective business decisions. If there were always right answers businesses would never fail. These questions were created to challenge your students to apply the materials they have learned to real business situations. For this reason, the authors cannot provide you with one version of a correct answer. When grading your students' answers, be

sure to focus on their justification or support for their specific answers. A good way to grade these questions is to compare your student's answers against each other.

1. **COMPETITIVE ANALYSIS**
   Project Purpose: To explain the value of IS
   Potential Solution: Students need to be focusing on the many different business benefits derived from IS, which were presented in the chapter. Students' answers can include SCM, CRM, ERP, ethics, security, competitive advantages, etc. The Porter's Five Forces analysis should include justification for each force and the strategy can vary depending on the student's vision of Cheryl's future.

2. **APPLYING THE THREE GENERIC STRATEGIES**
   Project Purpose: Understanding Porter's three generic strategies
   Potential Solution: Organizations typically follow one of Porter's three generic strategies when entering a new market. (1) Broad cost leadership, (2) broad differentiation, (3) focused strategy. Broad strategies reach a large market segment. Focused strategies target a niche market. Focused strategies concentrate on either cost leadership or differentiation. Student answers will vary depending on which industries they choose to research.

3. **USING EFFICIENCY AND EFFECTIVENESS METRICS**
   Project Purpose: Applying efficiency IS metrics and effectiveness IS metrics
   Potential Solution: Efficiency implies doing things right and effectiveness implies doing the right things. Efficiency IS metrics focus on technology and include throughput, which is the amount of information that can travel through a system at any point in time. Efficiency metrics include speed, availability, accuracy, Web traffic, and response time. Effectiveness IS metrics focus on an organization's goals, strategies, and objectives and include usability, customer satisfaction, conversion rates, and financial metrics. Ideally, an organization wants to operate with significant increases in both efficiency and effectiveness.

4. **BUILDING BUSINESS RELATIONSHIPS**
   Project Purpose: To understand and bridge the gap between IS personnel and business personnel
   Potential Solution: Business personnel possess expertise in functional areas such as marketing, accounting, and sales. IS personnel have the technological expertise. IS personnel have their own vocabularies consisting of acronyms and technical terms. Business personnel have their own vocabularies based on their experience and expertise. This can cause a communications gap between the two. For both sides to have effective communications, the business personnel must seek to achieve an increased level of understanding of IS, and the IS personnel must seek to achieve an increased level of understanding of the business.

5. **DETERMINING IT ORGANIZATIONAL STRUCTURES**
   Project Purpose: To develop an organization's roles and responsibilities reporting structure
   Potential Solution: Chief Information Officer (CIO) oversees all uses of IS and ensures the strategic alignment of IS with business goals and objectives. Chief Technology Officer (CTO) is responsible for ensuring the throughput, speed, accuracy, availability, and reliability of IS. Chief Security Officer (CSO) is responsible for ensuring the security of information systems. Chief Privacy Officer (CPO) is responsible for ensuring the ethical and legal use of information. The

reporting structure will vary depending on your students' personal experiences. For example, if your student has experienced any type of identity theft, the CSO might be on the top of their reporting structure. If your student has been the victim of an ethical breech, they might have the CPO on the top of the reporting structure. The important part of this exercise is to have the correct justifications that support their reporting structure.

6.   **THE FIVE FORCES MODEL**
     Project Purpose: Understanding the Five Forces Model
     Potential Solution: An understanding the Five Forces Model is a useful tool in aiding organizations facing the challenging decision of entering a new market or industry segment. The Five Forces Model includes:
- Buyer power – high when buyers have many choices of whom to buy from and low when their choices are few
- Supplier power – high when buyers have few choices of whom to buy from and low when their choices are many
- Threat of substitute products or services – high when there are many alternatives to a product or service and low when there are few alternatives from which to choose
- Threat of new entrants – high when it is easy for new competitors to enter a market and low when there are significant entry barriers to entering a market
- Rivalry among existing competitors – high when competition is fierce in a market and low when competition is more complacent

The analysis should include justification of how each of the five forces effect Microsoft and show how Microsoft is going to complete with Geyser's new entry into the market with respect to each force. As this is a risk analysis the answers should also point out any potential weaknesses Microsoft has.