# *Business Driven Technology 8th edition Baltzan Solutions Manual*

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# CHAPTER TWO
# Identifying Competitive Advantages

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. For example:

- 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?

## LEARNING OUTCOMES

**Learning Outcome 2.1: Explain why competitive advantages are temporary along with the four key areas of a SWOT analysis.**

A competitive advantage is a feature of a product or service on which customers place a greater value than they do on similar offerings from competitors. Competitive advantages provide the same product or service either at a lower price or with additional value that can fetch premium prices. Unfortunately, competitive advantages are typically temporary because competitors often quickly seek ways to duplicate them. In turn, organizations must develop a strategy based on a new competitive advantage. Ways that companies duplicate competitive advantages include acquiring the new technology, copying business processes, and hiring away employees.

A SWOT analysis evaluates an organization's strengths, weaknesses, opportunities, and threats to identify significant influences that work for or against business strategies. Strengths and weaknesses originate inside an organization, or internally. Opportunities and threats originate outside an organization, or externally, and cannot always be anticipated or controlled.

**Learning Outcome 2.2: Describe Porter's Five Forces Model and explain each of the five forces.**

Porter's Five Forces Model analyzes the competitive forces within the environment in which a company operates, to assess the potential for profitability in an industry.



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- Buyer power is the ability of buyers to affect the price they must pay for an item.
- Supplier power is the suppliers' ability to influence the prices they charge for supplies (including materials, labor, and services).
- Threat of substitute products or services is 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 is 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 is high when competition is fierce in a market and low when competition is more complacent

**Learning Outcome 2.3: Compare Porter's three generic strategies.**
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.

**Learning Outcome 2.4: Demonstrate how a company can add value by using Porter's value chain analysis.**
To identify competitive advantages, Michael Porter created value chain analysis, which views a firm as a series of business processes that each add value to the product or service. The goal of value chain analysis is to identify processes in which the firm can add value for the customer and create a competitive advantage for itself, with a cost advantage or product differentiation. The value chain groups a firm's activities into two categories—primary value activities and support value activities. Primary value activities acquire raw materials and manufacture, deliver, market, sell, and provide after-sales services. Support value activities, along the top of the value chain in the figure, include firm infrastructure, human resource management, technology development, and procurement. Not surprisingly, these support the primary value activities.

## CLASSROOM OPENER
## GREAT BUSINESS DECISIONS – Cyrus McCormick's Reaper

On a hot summer day in 1831, several dozen farmers and hired laborers 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 installment payment plans.



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## CLASSROOM EXERCISE
## Comparing 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 EXERCISE
## Analyzing Porter's Five Forces

Porter's Five Forces is an easy framework to understand and offers a quick way to analyze a market. Porter's Five Forces was introduced in the text and you can review the below examples to ensure you have a solid understanding of each force. For this assignment, choose a product from the following list and perform a Porter's Five Forces analysis. Feel free to use the below Porter's Five Forces template for your assignment.

- Desktop Computer
- Address Book
- Walkman
- VHS Player
- Polaroid Camera
- Telephone
- Textbook

Be sure to add in examples of loyalty programs or switching costs you could implement to help retain your market share.



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## CLASSROOM VIDEOS
### Porter Videos

- **Michael Porter – The Five Forces that Shape Strategy** (10 Mins)
  http://www.youtube.com/watch?v=mYF2_FBCvXw

- **Michael Porter - Global Competitiveness Report 2007** (15 Mins)
  http://www.youtube.com/watch?v=kzn9-M2umFQ

- **Michael Porter with Charlie Rose** (60 Mins)
  http://www.youtube.com/watch?v=SJVkUbGh3w4

- **Michael Porter: Long-term strategies in a down turn** (13 Mins)
  http://www.youtube.com/watch?v=mwc073nNI3Q

## 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
### Big Data, Big Analytics

1. **You have landed your dream job working for Steve Evert. Unfortunately, Steve does not understand Porter's Five Forces Model. Using an example of your choice, explain to Steve the five forces in the model.**
   Using Costco as an example the following will explain Porter's Five Forces. Buyer power is high for Costco as they have many choices for competing stores such as Sam's Club, Wal-Mart, or generic brands at grocery stores. Supplier power is lower for Costco since the company competes on prices if the suppliers choose to increase prices Costco would just drop the product and since their warehouse is constantly changing products with no guarantees to any product they have reduced supplier power.

2. **Steve also does not understand why you can only choose one of the Porter's generic strategies to follow. Explain to Steve why it would be difficult to operate in more than one area of Porter's generic strategies.**
   Costco is following a cost leadership strategy. If you follow more than one of Porter's generic strategies you run the risk of confusing your customers. It would be a mistake to sell Tiffany's rings at Costco. Sticking to one of Porter's three generic strategies is a key to success. If you do want to operate in a different market then you should change the brand name.

## CHAPTER TWO CASE
### Michael Porter on TED

1. **In today's global business environment, does the physical location of a business matter?**



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Porter calls this the location paradox. If you think of globalization, your first reaction is to think that location doesn't matter anymore. There are no barriers to investment. But the paradox is that location still matters. The U.S. is still the most important space in the world, for example, and regions have tremendous specialization. Anything that can be easily accessed from a distance no longer is a competitive advantage. But the more there are no barriers, the more things are mobile, the more decisive location becomes. This point has tripped up a lot of really smart people. As a result, the bottom half of U.S. locations are facing more stress. Many cities used to have a natural advantage just become they were in the U.S. But that is not such an advantage any more. We are finding a tendency for the rich regions to get richer.

2. **Do you agree or disagree that business can solve social problems? Justify your answer.**
   There is no right or wrong to this question – makes for an interesting debate as your students combine the concepts of MIS in Chapter One with a real business.

## REVIEW QUESTIONS

1. **What is the relationship between a business strategy and stakeholders?**
   Stakeholders must believe in and support the business strategy to ensure its success. If a company creates a business strategy that employees or shareholders do not value it is doomed to failure. Having support of all stakeholders when setting goals and strategies for the business is crucial for survival.

2. **Who are the top three most important stakeholders in a business?**
   The answer to this question varies depending on the stakeholder. Shareholders do not always care about employees and employees do not always care about shareholders. Of course, in an ideal environment every stakeholder would have the same goals, but this is rarely the case in business. Clearly employees are the number one stakeholder because without employees there is no business. Clearly customers are the number one stakeholder because without customers there is no business. Obviously, you can make this statement for every stakeholder – hence the dilemma with defining who are the three most important.

3. **When would you use a SWOT analysis to help you make business decisions?**
   The question should be when would you not use a SWOT since this tool is amazingly simple to use for analyzing every aspect of business. I can't think of time you would not want to gain the insight of a SWOT analysis in business.

4. **What is the role Porter's Five Forces Model plays in decision making?**
   Formally defined, Porter's Five Forces Model analyzes the competitive forces within the environment in which a company operates to assess the potential for profitability in an industry. Its purpose is to combat these competitive forces by identifying opportunities, competitive advantages, and competitive intelligence. If the forces are strong, they increase competition; if the forces are weak, they decrease competition.

5. **How could a company use loyalty programs to influence buyer power?**
   Companies can also reduce buyer power with loyalty programs, which reward customers based on their spending. The airline industry is famous for its frequent-flyer programs, for instance. Because of the rewards travelers receive (free airline tickets, upgrades, or hotel



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stays), they are more likely to be loyal to or give most of their business to a single company. Keeping track of the activities and accounts of many thousands or millions of customers covered by loyalty programs is not practical without large-scale business systems, however. Loyalty programs are thus a good example of using MIS to reduce buyer power.

6. **How could a company use switching costs to lock in customers and suppliers?**
One way to reduce buyer power is by manipulating switching costs, costs that make customers reluctant to switch to another product or service. Switching costs include financial as well as intangible values. The cost of switching doctors, for instance, includes the powerful intangible components of having to build relationships with the new doctor and nurses, as well as transferring all your medical history. With MIS, however, patients can store their medical records on DVDs or thumb drives, allowing easy transferability. The Internet also lets patients review websites for physician referrals, which takes some of the fear out of trying someone new

7. **What are Porter's three generic strategies and why would a company want to follow only one?**
Porter has identified three generic business strategies for entering a new market: (1) broad cost leadership, (2) broad differentiation, and (3) focused strategy. Broad strategies reach a large market segment, while focused strategies target a niche or unique market with either cost leadership or differentiation. Trying to be all things to all people is a recipe for disaster, since doing so makes it difficult to project a consistent image to the entire marketplace. For this reason, Porter suggests adopting only one of the three generic strategies.

8. **How can a company use Porter's value chain analysis to measure customer satisfaction?**
To identify these competitive advantages, Michael Porter created value chain analysis, which views a firm as a series of business processes that each add value to the product or service. Value chain analysis is a useful tool for determining how to create the greatest possible value for customers. The goal of value chain analysis is to identify processes in which the firm can add value for the customer and create a competitive advantage for itself, with a cost advantage or product differentiation. The value chain groups a firm's activities into two categories, primary value activities, and support value activities. When performing a value chain analysis, a firm could survey customers about the extent to which they believe each activity adds value to the product or service. This step generates responses the firm can measure to describe how each activity adds (or reduces) value. Then the competitive advantage decision for the firm is whether to (1) target high value-adding activities to further enhance their value, (2) target low value-adding activities to increase their value, or (3) perform some combination of the two.

## MAKING BUSINESS DECISIONS

1. **SWOT YOUR STUDENTS**
Hopefully, everyone immediately recognizes the importance of this course as they watched the Friedman video. As you begin to compete in a Flat World you need all the technology skills and experience you can possibly find! I've never heard anyone say - "My career was right on track until I learned about technology - I sure wish I had never learned technology it ruined my career".



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- Amazon is a book selling company - not a technology company.
- Netflix is a video rental business - not a technology company.
- eBay is a consumer trading business - not a technology company.

All of these businesses were started by BUSINESS people who understood the value of technology so well that they fundamentally changed the primary business processes of buying books, renting videos, and trading goods. Every BUSINESS person should understand technology, without it they won't be able to spot the competitive advantages that are just waiting for the next brilliant entrepreneur to discover.

There are huge strides in third world countries. We now have Internet carts that can drive around and provide remote villages in Neap and India and Africa with computers and access. Some argue that the world between the haves and the have-nots is widening because of technology - I personally believe it is closing. With a computer, I can literally get a PHD from an online school no matter where I am located - a remote village in Antarctica.

Here is a question for your students. Is the world flat for everyone? When I view Friedman, and try to think of a job that isn't flat I actually tend to come up with blue collar jobs. White collar jobs are easily outsourced - CPAs are doing our taxes in China, Legal work is done is Africa, Architecture work is done in India, Programming code is done is Ukraine, Doctors are reading our x-rays in India, etc. But can a nurse, garbage man, house painter, contractor, waitress, librarian, (service industry) jobs be outsourced? Don't get me wrong - I completely agree that the best thing you can invest in is your education - but in a flat world I no longer agree that it means your skill set won't be outsourced.

**2. KEEPING SENSITIVE DATA SAFE WHEN IT'S NOT IN A SAFE**

Sensitive organizational data includes:

- Human resource data
- Competitive data
- Strategic data
- Pricing data
- New product development data
- Marketing data
- Finance data
- Employee salary data
- Customer data

Keeping sensitive data safe is a key priority for digital companies. Today one angry employee can walk out the door with terabytes of corporate data. Policies for data sharing and data capture can help mitigate the issues of data security.

**Top 10 Questions Managers Should Ask Regarding Information Security:**

1. Does the board of directors recognize information security is a board-level issue that cannot be left to the IT department alone?
2. Is there clear accountability for information security in the organization?
3. Do the board members articulate an agreed-upon set of threats and critical assets? How often do they review and update these?
4. How much is spent on information security and what is it being spent on?



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5. What is the impact on the organization of a serious security incident?
6. Does the organization view information security as an enabler? (For example, by implementing effective security, could the organization increase business over the Internet?)
7. What is the risk to the business of getting a reputation for low information security?
8. What steps have been taken to ensure that third parties will not compromise the security of the organization?
9. How does the organization obtain independent assurance that information security is managed effectively?
10. How does the organization measure the effectiveness of its information security activities?

- **The importance of educating employees on information security**
  Adding to the complexity of information security is the fact that organizations must enable employees, customers, and partners to access information electronically to be successful in this electronic world. Doing business electronically automatically creates tremendous information security risks for organizations. Surprisingly, the biggest issue surrounding information security is not a technical issue, but a people issue.

  The CSI/FBI Computer Crime and Security Survey reported that 38 percent of respondents indicated security incidents originated within the enterprise. Insiders are legitimate users who purposely or accidentally misuse their access to the environment and cause some kind of business-affecting incident. Most information security breaches result from people misusing an organization's information either advertently or inadvertently. For example, many individuals freely give up their passwords or write them on sticky notes next to their computers, leaving the door wide open to intruders.

## 3. PURSUING PORTER

The types of professionals your students might list include:

- Bill Gates
- Steve Jobs
- Seth Godin
- Malcolm Gladwell
- John Kotter
- Jim Collins
- Peter Drucker
- Clayton Christensen
- Jack Welch
- Stephen Covey
- Dale Carnegie

## 4. CHOOSING A CAREER

Student answers to this project will vary depending on their area of expertise. This project is aimed at getting your students excited about information technology, even though they are not IT majors. By researching the IT implications for their majors, they will begin to realize how important IT will be in their future. The most important part of your students' answers will be the justification for their analysis.



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If your students are still determining their potential majors and areas of expertise you can break your students into groups and assign each group a different major or industry to research. Have your students present their findings to the entire class. This helps provide an overview of all areas and related IT influences.

Potential majors:

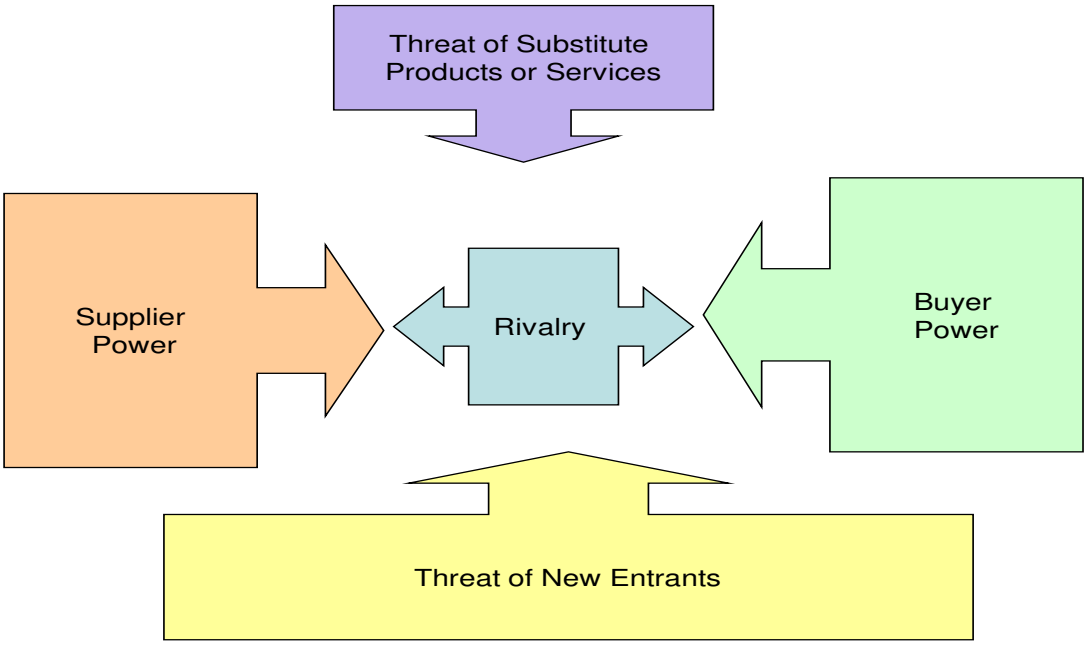
- Accounting – Oracle financials, payroll systems, QuickBooks
- Finance - Oracle financials, payroll systems, QuickBooks
- Management – HR systems that can pinpoint potential employee issues and risks
- Marketing – Blogs, eMarketing, RSS, podcasts, sales force automation
- IT/MIS – Design tools such as Irwin or Rational Rose or Rational RUP
- Statistics - SAS
- Operations – i2, supply chain systems, logistic systems

Potential industries:

- Telecommunications
- Health care
- Finance
- Education
- Strategy services
- Products
- Energy
- Fashion

**5. DEATH OF A PRODUCT**

Answer to this questions will vary – below is a template for your students to use as they analyze their products.






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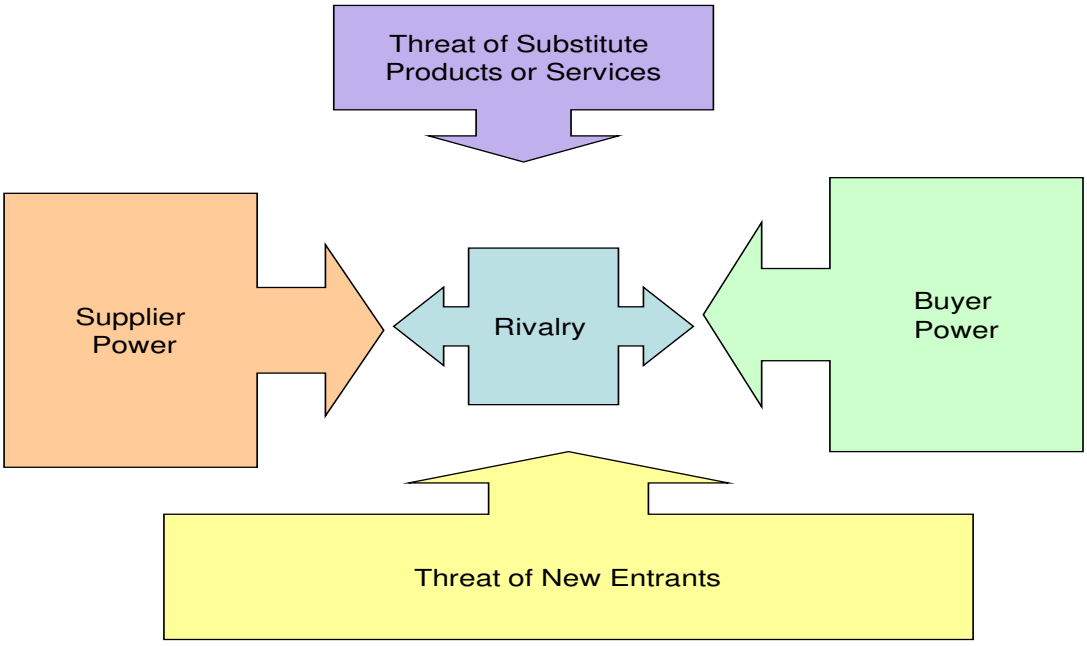
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## 6. APPLYING THE THREE GENERIC STRATEGIES

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.

## 7. IOT TIME MANAGEMENT

Answer to this questions will vary – below is a template for your students to use as they analyze their products.




## 8. SHARING DATA AROUND THE WORLD

Sensitive Data can include:

- Tax Data
- Health Data
- Employee Data
- Payroll Data
- Customer Data
- Human Resource Data
- Attorney - Client Privileged Information
- Credit Card or Payment Card Industry (PCI) Information
- Federal Information Security Management Act (FISMA) Data
- MIS Security Information



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There are many different types of sensitive data for each stakeholder. I typically break my students into groups and have them pick one of the stakeholders and spend 5 minutes brainstorming sensitive data types then share their findings.



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