

CHAPTER 1

DOING BUSINESS IN DIGITAL TIMES

IT at Work

1.1 Zipcar and Other Connected Products

1. Research Zipcar. How does this company's business model differ from traditional car rental companies, such as Hertz or Avis?

Zipcar is an alternative business model to the car rental practice that is more flexible and convenient for customers. It exploits the developments in technology in order to provide personal transport services. One becomes a member in Zipcar by paying an application fee and, to retain membership, an annual fee. Zipcar offers car-sharing opportunities billable by the hour or the day. Members can reserve Zipcars online by paying a reservation fee. Zipcar was acquired by Avis in 2013.

With Zipcar, cars are parked in specific locations around members' neighborhoods. Members have automated access to cars enabled by RFID transponders. After use, members return the cars to the same place they started. The fees the members pay takes care of the gas, parking, insurance, and maintenance. When there is unauthorized use, there are system features to remotely disable car mobility using sensors. See <http://en.wikipedia.org/wiki/Zipcar> for recent updates on this topic.

2. Think of two physical things in your home or office that, if they were embedded with sensors and linked to a network, would improve the quality of your work or personal life. Describe these two scenarios.

Answers may vary. They all should state the objective, the specific information gathered (sensed) and how that information is used in delivering the desired service. Such applications could involve remote operations of appliances, sensing status changes, and reminders for time-specific events, such as: turn on the oven remotely by sending a message to the home network; open the door for the pet when it makes a certain type of noise (the sensor is set to detect it).

3. What might the privacy concerns be?

Various data points about customers are collected. The data might contain personally identifiable information (PII) as well. Therefore, protection of such information, especially when used in conjunction with cloud computing, could be a major privacy concern. Only the minimum necessary personal data should be collected to reduce this risk in handling PII. Sometimes such data may be shared with other businesses and this may require transferring the data to other locations. Such extended use of customer information increases the risks concerning privacy. Judicious collection of customer information is used in Zipcar. For instance, even though it is easy to track where all of the customers travelled, such information is not collected in the system.

1.2 Wearable Technology

1. Discuss how wearable electronics and the instant feedback they send to your mobile device could be valuable to you.

Answers may vary. Principal value today is in athletic performance and the monitoring of health conditions.

2. How can data from wearable technology be used to improve worker productivity or safety?

Answers may vary. Some answers may include feedback on movements to improve performance (as with time-motion studies) and alerting workers when they have had too much repetitive movement or not enough movement for good health (as in a sedentary job.)

3. What are two other potentially valuable uses of instant feedback or data from wearable technology?

Answers may vary. Some answers may include sales personnel looking up information, such as warehouse stock or sale prices, without leaving the customer; wearing something like Google Glass to instantly access information on a sales client or medical patient or product prices from different vendors; monitoring health (pulse, blood pressure, etc.) and medication reminders.

4. How can wearable devices impact personal privacy?

Answers may vary. Such devices might be used by vendors to offer on the spot discounts, at the expense of collecting data on location and buying habits of the individual. Access to wireless devices may reveal not only current location information, but habitual information (when you leave/arrive home, when and where you go running, etc.)

1.3 AutoTrader Redesigns Its Order-to-Cash Process

1. Discuss how the redesigned order process supports the company's three new business objectives.

By reducing the process to only six human tasks, assigning to and alerting the right people when new work is added, and allowing dealers to make changes directly to their contracts, the system became much more agile, able to respond to changing conditions. The new system reduced order fulfillment to one day, with fewer than five percent needing clarification from sales, generating revenue much more quickly. Reducing cycle time relieved the aggravation customers experienced from unnecessary delays, improving customer satisfaction.

2. How does the reduced cycle time of the order fulfillment process improve revenue generation and customer satisfaction?

The new system reduced order fulfillment from more than six to eight days down to one day, generating revenue much more quickly. Reducing cycle time allowed for handling a greater volume while also relieving the aggravation customers experienced from unnecessary delays, thus improving customer satisfaction.

3. Does reducing the cycle time of a business process also reduce errors? Why or why not?

Yes, reducing the cycle time, the time required to complete a process, can reduce errors. Reduction in cycle time is achieved by automating tasks as much as possible and by optimizing other tasks. This reduces the number of human tasks to be completed and makes those tasks as routine as possible.

1.4 Finding Qualified Talent

1. Visit and review the Amazon Mechanical Turk Web site. Explain HITs. How do they provide an on-demand workforce?

Amazon's Mechanical Turk is a marketplace for helping companies with small tasks attract short term contract employees to fulfill those tasks. Amazon defines the Mechanical Turk as a "marketplace for work" where they "give businesses and developers access to an on-demand, scalable workforce."

Amazon Mechanical Turk's HITs stand for Human Intelligence Tasks and are small tasks that need to be completed by a person. They can consist of small activities which are very difficult, if not impossible, for machines to do, but which can be done with relative ease by humans.

Amazon provides an on-demand workforce by providing a framework that allows companies to post tasks as they become available and potential contract employees to search through those tasks. Businesses post a task, its description and details about the task such as the time requirements, the reward they are willing to pay for the task, and the quantity needed, and then individuals search through the tasks to see which ones they are qualified to perform and then submit a request to perform that task. Contract employees can work on the task on their own time.

2. Visit and review the InnoCentive Web site. Describe what they do and how.

InnoCentive is an open innovation company that posts research and development "challenge problems" in a marketplace format for anyone to try to solve. Challenge problems come from a broad range of domains including: engineering, computer science, math, chemistry, life sciences, physical sciences, and business. Cash prizes are awarded to the best solutions. Through this resource, organizations hope to obtain high quality, new ideas that will help them to solve problems faster in a more cost effective manner and with less risk.

InnoCentive challenges pose larger problems than Amazon's Mechanical Turk, require greater skill, and provide a larger reward. InnoCentive lists a number of large

organizations that have used this resource over the past ten years including: the AARP Foundation, Booz Allen Hamilton, Cleveland Clinic, Eli Lilly & Company, EMC Corporation, NASA, Nature Publishing Group, Procter & Gamble, Syngenta, The Economist, and The Rockefeller Foundation.

Companies seeking solutions post problem challenges along with the financial award for the best workable solution. These companies pay a fee to post their challenge. Problem solvers can view challenges and submit their solutions. If the problem poster finds a workable solution that they want to implement, they pay the reward to the problem solver for the intellectual property rights of the solution. Awards have ranged from \$5,000 to over \$1 million.

Review Questions

1.1 Every Business is a Digital Business

1. What are the benefits of cloud computing?

With cloud computing, IT services are delivered via the Internet on-demand. Some benefits are faster application deployment, no need for upfront hardware costs, a flexible capacity for changing computing requirements, and the ability to add, or reduce, server space on-demand.

2. What is machine-to-machine (M2M) technology? Give an example of a business process that could be automated with M2M.

Machine-to-machine (M2M) technology enables sensor-embedded products to share reliable real-time data via radio signals. M2M is also referred to as the Internet of Things (IoT) and is widely used to automate business processes in industries ranging from transportation to health care. By adding sensors to trucks, turbines, roadways, utility meters, heart monitors, vending machines, and other equipment they sell, companies can track and manage their products remotely.

3. Describe the relationships in the SoMoClo model.

The SoMoClo model refers to social, mobile, and cloud technologies and their relationships, creating the technical infrastructure for digital business. At the core is the cloud, providing 24/7 access to storage, apps, and services. Handhelds and wearables, such as Google Glass, Pebble, and Sony Smartwatch (Figure 1.8), and their users form the edge. Social channels connect the core and edge.

4. Explain the cloud.

The cloud consists of huge data centers accessible via the Internet which provides 24/7 access to storage, apps, and services.

5. Why have mobile devices given consumers more power in the marketplace?

The social influences of a connected society impact advertising and marketing. Positive, or negative, influences on social media can impact consumer buying. Being mobile, consumers can check endorsements and prices on the spot when contemplating a purchase. Customer loyalty, and therefore revenue, increasingly is dependent upon a business exploiting mobile technology, such as location-aware services, apps, alerts, and social networks.

6. What is a business model?

A business model is the means by which a company expects to, and does, make money.

7. What is a digital business model?

A digital business model defines how a business makes money digitally.

8. Explain the Internet of Things.

The Internet of Things refers to a set of capabilities enabled when physical things are connected to the Internet via sensors. Sensors allow for the sharing of real-time data as well as the tracking, monitoring, and management of products remotely.

1.2 Business Process Management and Improvement

1. What is a business process? Give three examples.

Business processes are series of steps by which organizations coordinate and organize tasks to get work done. In the simplest terms, a process consists of activities that convert inputs into outputs by doing work.

Answers may vary. Some examples of common business processes are:

- Accounting: Invoicing; reconciling accounts; auditing
- Finance: Credit card or loan approval; estimating credit risk and financing terms
- Human resources (HR): Recruiting and hiring; assessing compliance with regulations; evaluating job performance
- IT or information systems: Generating and distributing reports and data visualizations; data analytics; data archiving
- Marketing: Sales; product promotion; design and implementation of sales campaigns; qualifying a lead
- Production and operations: Shipping; receiving; quality control; inventory management
- Cross-functional business processes: Involve two or more functions, for example, order fulfillment and product development

2. What is the difference between business deliverables and objectives?

Objectives define the desired benefits or expected performance improvements. They do not and should not describe what you plan to do, how you plan to do it, or what you plan to produce, which is the function of processes. This last item, what you plan to produce, are deliverables.

3. List and give examples of the three components of a business process.

The three components of a business process are inputs, activities, and deliverables. Inputs are those items needed to produce the deliverables. These may be raw materials, data, knowledge, or expertise.

Activities are the work that transforms inputs and acts upon data and knowledge in order to produce deliverables.

Deliverables are the products, services, plans, or actions which result from business processes.

4. Explain the differences between formal and informal processes.

Formal processes are documented and have well-established steps. Order taking and credit approval processes are examples.

Informal processes are typically undocumented, have inputs that may not yet been identified, and are knowledge-intensive.

5. What is a standard operating procedure (SOP)?

A standard operating procedure (SOP) is a well-defined and documented way of doing something. An effective SOP documents who will perform the tasks; what materials to use; and where, how, and when the tasks are to be performed.

6. What is the purpose of business process management (BPM)?

Business process management (BPM) consists of methods, tools, and technology to support and continuously improve business processes. The purpose of BPM is to help enterprises become more agile and effective by enabling them to better understand, manage, and adapt their business processes.

1.3 The Power of Competitive Advantage

1. What are the characteristics of an agile organization?

An agile organization has the ability to respond or adapt quickly.

Organizations depend on IT agility and responsiveness to be able to adapt to market conditions and gain a competitive edge. That competitive advantage is short-lived if competitors quickly duplicate it.

Responsiveness means that IT capacity can be easily scaled up or down as needed, which essentially requires cloud computing. Closely related to IT agility is flexibility.

Flexibility means having the ability to quickly integrate new business functions or to easily reconfigure software or apps.

2. Explain IT consumerization.

IT consumerization is the migration of consumer technology into enterprise IT environments. This shift has occurred because personally owned IT is as capable and cost-effective as its enterprise equivalents.

3. What are two key components of corporate profitability?

The two key components of corporate profitability are industry structure and competitive advantage. Industry structure determines the range of profitability of an average competitor in that sector and can be very difficult to change.

4. Define competitive advantage.

Competitive advantage is the edge that enables a company to outperform its average competitor. Competitive advantage can be sustained only by continually pursuing new ways to compete. IT can be an enabler of competitive advantage. Competitive advantage is the difference between a company and its competitors on matters pertinent to customers—such as quality of service/product, and value for money.

5. Describe strategic planning.

Strategic planning is a series of processes in which an organization selects and arranges its businesses or services to keep the organization healthy or able to function even when unexpected events disrupt one or more of its businesses, markets, products, or services. Strategic planning involves environmental scanning and prediction, or SWOT analysis, for each business relative to competitors in that business' market or product line.

6. Describe SWOT analysis.

In general, **strategic analysis** is the scanning and review of the political, social, economic, and technical environment of the organization. Then the company would need to investigate competitors and their potential reactions to a new entrant into their market. Equally important, the company would need to assess its ability to compete profitably in the market and impacts of the expansion on other parts of the company.

The purpose of this analysis of the environment, competition, and capacity is to learn about the strengths, weaknesses, opportunities, and threats (SWOT) of the expansion plan being considered. **SWOT analysis**, as it is called, involves the evaluation of strengths and weaknesses, which are internal factors; and opportunities and threats, which are external factors. Examples are:

- Strengths: Reliable processes; agility; motivated workforce
- Weaknesses: Lack of expertise; competitors with better IT infrastructure
- Opportunities: A developing market; ability to create a new market or product
- Threats: Price wars or other fierce reaction by competitors; obsolescence

SWOT is only a guide and should be used together with other tools such as Porters' Five Forces Analysis Model. Porters' models are described in the next section. The value of SWOT analysis depends on how the analysis is performed. Here are several rules to follow:

- Be realistic about the strengths and weaknesses of your organization
- Be realistic about the size of the opportunities and threats
- Be specific and keep the analysis simple, or as simple as possible
- Evaluate your company's strengths and weaknesses in relation to those of competitors (better than or worse than competitors)
- Expect conflicting views because SWOT is subjective, forward-looking, and based on assumptions

SWOT analysis is often done at the outset of the strategic planning process.

7. Explain Porter's five forces model and give an example of each force.

According to Porter's competitive forces model, there are five major forces that influence a company's position within a given industry and the strategy that management chooses to pursue. Other forces, including new regulations, affect all companies in the industry, and have a rather uniform impact on each company in an industry. According to Porter, an industry's profit potential is largely determined by the intensity of competitive forces within the industry. The five major forces in an industry affect the degree of competition, which impact profit margins and ultimately profitability. These forces interact so while you read about them individually, their interaction determines the industry's profit potential. For example, while profit margins for pizzerias may be small, the ease of entering that industry draws new entrants into that industry. Conversely, profit margins for delivery services may be large, but the cost of the IT to support the service is a huge barrier to entry into the market.

Here is an explanation of the five industry (market) forces.

1. **Threat of entry of new competitors.** Industries that have large profit margins attract others (called entrants) into the market to a greater degree than small margins. It's the same principle as jobs--people are attracted to higher paying jobs, provided that they can meet or acquire the criteria for that job. In order to gain market share, entrants typically sell at lower prices or offer some incentive. Those companies already in the industry may be forced to defend their market share by lowering prices, which reduces their profit margin. Thus, this threat puts downward pressure on profit margins by driving prices down.

This force also refers to the strength of the barriers to entry into an industry, which is how easy it is to enter an industry. The threat of entry is lower (less powerful) when existing companies have ITs that are difficult to duplicate or very expensive. Those ITs create barriers to entry that reduce the threat of entry. An example of an industry difficult to enter might be that of a new car sales dealership, as these are controlled by the manufacturer.

2. **Bargaining power of suppliers.** Bargaining power is high where the supplier or brand is powerful; e.g., Apple, Microsoft, and auto manufacturers. Power is determined by how much a company purchases from a supplier. The more powerful company has the leverage to demand better prices or terms, which increase its profit margin. Conversely, suppliers with very little bargaining power tend to have small profit margins.
3. **Bargaining power of customers or buyers.** This force is the reverse of the bargaining power of suppliers. Examples are Wal-Mart and government agencies. This force is high where there are a few, large customers or buyers in a market.

4. **Threat of substitute products or services.** Where there is product-for-product substitution, such as Kindle for Nook, there is downward pressure on prices. As the threat of substitutes increases, profit margin decreases because sellers need to keep prices competitively low.
5. **Competitive rivalry among existing firms in the industry.** Fierce competition involves expensive advertising and promotions; intense investments in research and development (R&D), or other efforts that cut into profit margins. This force is most likely to be high when entry barriers are low; the threat of substitute products is high, and suppliers and buyers in the market attempt to control. That's why this force is placed in the center of the model.

1.4 Enterprise Technology Trends

1. What was the significance of Apple's introduction of the iPhones music store?

The iTunes store was the first representation of Apple's future outside of its traditional computing product line and a breakthrough that forever changed the music industry.

2. What are three IT trends?

The three trends are 1) direction away from the traditional desktop and documents era and toward mobile business apps in the cloud; 2) to be more socially engaged, within restrictions of regulation; and 3) more near-field communication technology.

3. What are three business applications of NFC?

Answers may vary. Some examples are: payment / validation of products, such as airline boarding passes with a touch of an NFC smartphone; tracking products in their supply chain; validating authenticity of high-end goods before purchase; accessing of marketing offers on goods to be purchased; the tracking of livestock; and, the tracking and payment of tolls on toll roads without requiring human interaction.

1.5 How Your IT Expertise Adds Value to Your Performance and Career

1. Why is IT a major enabler of business performance and success?

Digital technology creates markets, businesses, products, and careers. Exciting IT developments are changing how organizations and individuals do things. New technologies, such as 4G or 5G networks, embedded sensors, on-demand workforces, and e-readers point to ground-breaking changes. CNN.com has created a new market whose impacts are yet to be realized. Visit iReport at ireport.com/, where a pop-up reads "iReport is the way people like you report the news. The stories in this section are not edited, fact-checked or screened before they post."

2. Explain why it is beneficial to study IT today?

According to the U.S. Department of Labor, and the University of California Los Angeles (UCLA), the best national jobs in terms of growth, advancement, and salary increases in 2013 are in the fields of IT, engineering, health care, finance, construction, and management. It is projected that these job categories will see above-average national growth over the next several years. The U.S. Department of Labor projections are generally 6–10 years in reference.

With big data, data science, and M2M, companies are increasing their IT staff. In addition, many new businesses are seeking more programmers and designers. Data security threats continue to get worse. The field of IT covers a wide range that includes processing of streaming data, data management, big data analytics, app development, system analysis, information security, and more.

Job growth is estimated at 53 percent by 2018, according to the U.S. Department of Labor; and salaries in many IT jobs will increase by 4 to 6 percent. The lack of skilled IT workers in the U.S. is a primary reason for the outsourcing of IT jobs.

3. Why are IT job prospects so strong?

Answers may vary. IT managers play a vital role in the implementation and administration of digital technology. Workers with specialized technical knowledge and strong communications and business skills, as well as those with an MBA with a concentration in an IT area, will have the best prospects. Job openings will be the result of employment growth and the need to replace workers who transfer to other occupations or leave the labor force (Bureau of Labor Statistics, 2012–2013).

Critical Thinking Questions

1. Why are businesses experiencing a digital transformation?

Businesses are experiencing a digital transformation as digital technology enables changes unimaginable a decade ago. High-performance organizations are taking advantage of what is newly possible from innovations in mobile, social, cloud, big data, data analytics, and visualization technologies. These digital forces enable unprecedented levels of connectivity, or connectedness. In order to stay competitive and maximize the customer experience, companies must stay abreast of digital technologies and how those technologies enable their businesses to thrive.

2. More data are collected in a day now than existed in the world 10 years ago. What factors have contributed to this volume of data?

The advent of mobile and social media have contributed enormously. Have of the data are in the cloud and generated by mobile and social activities. The technological developments of mobile data, sensors, and near-field communications have led to more data being more easily collected. Sources of data include: mobile devices and M2M sensors embedded in everything from airport runways to casino chips (e.g., the Internet of Things); social content from texts, tweets, posts, blogs; clickstream data from the Web and Internet searches; video data and photos from retail and user-generated content; and financial, medical, research, customer, and B2B transactions.

3. Assume you had no smartphone, other mobile device, or mobile apps to use for 24 hours. How would that mobile blackout disrupt your ability to function?

Answers may vary. They likely will include no access to social media and no communication, whether social or emergency.

4. **What were three highly disruptive digital technologies? Give an example of one disruption for each.**

Cloud computing – using resources, such as a mobile place to store files or for accessing software, no longer depends upon a large, upfront investment to purchase that resource, nor does acquiring the resource take the amount of time it once did.

Example: Apple iCloud *Answers may vary.*

Machine-to-Machine technology – the “Internet of Things” enables sensor-embedded products to share real-time data so products may be tracked and managed remotely.

Examples: the ability to read and/or control utility meters, heart monitors, vending machines, and other products. *Answers may vary.*

Big Data – data stream in from multiple channels and sources; typically unstructured data.

Examples: target marketing, trend analysis, tailored products and services. *Answers may vary.*

5. **Why are enterprises adopting cloud computing?**

Cloud computing reduces costs, increases flexibility, and allows companies to dynamically adjust resources to their computing needs, thus saving money. Reacting to changes can be much more responsive.

6. **What is the value of M2M technology? Give two examples.**

Answers may vary. Products with embedded sensors can provide better service, protect against fraud, and provide reliable real-time data. Examples: Ford’s rain-sensing front wipers adjust wiper speed to weather conditions; sensors in casino chips prevent theft and loss.

7. **Starbucks monitors tweets and other sources of big data. How might the company increase revenue from big data analytics?**

Being aware of trends and opinions which might affect their business, they can adapt rapidly to adjust prices, create new product offerings, and provide for a better customer experience within a short time frame, compared to their competition. This could increase business and hence revenue. Other sources of data might provide insights to lower costs.

8. **Select three companies in different industries, such as banking, retail store, supermarket, airlines, or package delivery, that you do business with. What engage you, keep you informed, or create a unique customer experience? How effective is each use of digital technology to keeping you a loyal customer?**

Answers may vary.

9. **Describe two examples of the influence of SoMoClo on the financial industry.**

Answers may vary. Examples: Online mobile banking, use of mobile device (phone) to pay for transactions using NFC.

10. What is a potential impact of the Internet of things on the health-care industry?

Answers may vary. Examples: Monitoring patients remotely could reduce hospital stays. Remote sensor data collection could contribute to medical care and research.

11. How could wearable technology be used to create a competitive edge in the athletic and sportswear industry?

Answers may vary. Example: By using sensors in wearable technology to analyze movements, 3D representations of athletic form can be made, revealing areas for improvement which could make the athlete more competitive.

12. Why does reducing the cycle time of a business process also help to reduce errors?

Reduction in cycle time is achieved by automating tasks as much as possible and by optimizing other tasks. This reduces the number of human tasks to be completed and makes those tasks as routine as possible, reducing the possibility of errors.

13. Research firm Gartner defines competitive advantage as a difference between a company and its competitors that matters to customers. Describe one use of M2M technology that could provide a manufacturer with a competitive advantage.

Answers may vary. Examples: Manufacturing processes with embedded sensors can be controlled more precisely or monitored for hazards and then take corrective action, which reduces injuries, damage, and costs. Combined with big data analytics, manufacturers can improve the efficiency of their machinery and minimize energy consumption, which often is the manufacturing industry's second-biggest expense.

14. What IT careers are forecasted to be in high demand? Explain why.

Answers may vary. Examples: many new businesses are seeking more programmers and designers. Data security threats continue to get worse, increasing the need for security specialists. The field of IT covers a wide range that includes processing of streaming data, data management, big data analytics, app development, system analysis, information security, and more. Workers with specialized technical knowledge and strong communications and business skills, as well as those with an MBA with a concentration in an IT area, will have the best prospects.

15. Why or how would understanding the latest IT trends influence your career?

Answers may vary.

Online and Interactive Exercises

16. Research the growing importance of big data analytics. Find two forecasts of big data growth. What do they forecast?

Answers may vary.

17. Go to the U.S. Department of Commerce website and search for U.S. Economy at a Glance: Perspective from the BEA Accounts.

- a. Review the BEA home page to learn the types of information, news, reports, and interactive data available. Search for the page that identifies who uses BEA measures. Identify two users of Industry Data and two users of International Trade and Investment Data.

Answers may vary.

U.S. Department of Commerce
Bureau of Economic Analysis

Home National International Regional Industry Interactive Data Contact Us FAQs About BEA

U.S. Economic Accounts

- National**
 - Gross Domestic Product (GDP)
 - Personal Income and Outlays
 - Consumer Spending
 - Corporate Profits
 - Fixed Assets
 - Research and Development Satellite Account
- International**
 - Balance of Payments
 - Trade in Goods and Services
 - International Services
 - International Investment Position
 - Direct Investment and Multinational Companies
 - Survey Forms and Related Materials
- Regional**
 - GDP by State and Metropolitan Area
 - State and Local Area Personal Income
 - RIMS II Regional Input-Output Multipliers
 - Economic Information for Coastal Areas
- Industry**
 - Quarterly GDP by Industry
 - Annual Industry Accounts (GDP by Industry & Input-Output Accounts)
 - Benchmark Input-Output Accounts
 - Research and Development Satellite Accounts
 - Travel and Tourism Satellite Accounts

Latest Release 9/18/2014
Travel and Tourism Satellite Accounts

Real GDP 8/28/2014
+4.2% in Q2 2014

Personal Income 8/29/2014
+0.2% in July 2014

Int'l Trade in Goods and Services 9/4/2014
Deficit decreased to \$40.5 billion in July 2014 (p) from \$40.8 billion in June 2014(r).

U.S. Int'l Transactions 9/17/2014
Current-account deficit decreased \$3.6 billion to \$98.5 billion in Q2 2014(p).

2014 News Release Schedule

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News Release Archive

Information For...
Media
Congressional Users
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BE-12 Respondents
Job Seekers

Publications
Survey of Current Business
Papers by Topic
BEA Customer Guide

b. Click on the Glossary. Use the Glossary to explain GDP in your own words.

The glossary definition of GDP is Gross domestic product (GDP). The market value of goods and services produced by labor and property in the United States, regardless of nationality; GDP replaced gross national product (GNP) as the primary measure of U.S. production in 1991.

c. Under the NEWS menu, select U.S. Economy at a Glance. Review the GDP current numbers for the last two reported quarters. How did GDP change in each of these two quarters?

Answers may vary depending on the quarters reviewed.

Apply IT Concepts to Business Decisions

- 18. A transportation company is considering investing in a truck tire with embedded sensors—the Internet of things. Outline the benefits of this investment. Would this investment create a long-term competitive advantage for the transportation company?**

Answers may vary. Depending on the abilities of the sensors, some benefits may be: the ability to track mileage and wear of the tire, predicting when replacement is needed before downtime or an accident might occur, predicting the need for quantity purchasing of tires, etc. It could create competitive advantage by reducing downtime, reducing accidents, and reducing tire replacement costs, however, the advantage likely would be short-lived as other transportation companies also purchased similar tires.

- 19. Visit the Web site of UPS (ups.com), Federal Express (fedex.com), and one other logistics and delivery company.**

a. At each site, what information is available to customers before and after they send a package?

Answers may vary.

b. Compare the three customer experiences.

Answers may vary.

- 20. Visit YouTube.com and search for two videos on Michael Porter’s strategic or competitive forces models. For each video, report what you learned. Specify the complete URL, video title, who uploaded the video and the date, video length, and number of views.**

Answers may vary.

- 21. Visit Dell.com and Apple.com to simulate buying a laptop computer. Compare and contrast the selection process, degree of customization, and other buying features. What are the barriers to entry into this market, based on what you learned from this exercise?**

Answers may vary.

Cases

Opening Case 1: McCain Foods’ Success Factors: Dashboards, Innovation, and Ethics

- 1. All it takes is one compromised ingredient to contaminate food and to put human lives at risk. Delays in communicating contaminated food increase the health risk and fines for violating the Food Safety Modernization Act. How can the SCM system help McCain Foods reduce the risks related to low-quality or contaminated frozen foods reaching consumers?**

By being able to trace all ingredients along their supply chain, McCain Foods SCM system is used to keep workers informed of actual and potential problems with food quality, inventory, and shipping as they occur. McCain’s SCM system ensures delivery of the best products possible at the best value to customers, reducing, even if not eliminating, such risks.

2. What are three challenges or threats facing McCain Foods and what is the reason for each challenge or threat?

Drop in demand for frozen foods. McCain operated in an industry that was facing tougher competition. Health-conscious trends were shifting customer demand toward fresh food, which was slowing growth in the frozen foods market.

Perishable inventory. Of all the types of manufacturing, food manufacturers face unique inventory management challenges and regulatory requirements. Their inventory of raw materials and finished goods can spoil, losing all their value, or food can become contaminated. Regulators require food manufacturers to be able to do recalls quickly and effectively. Food recalls have destroyed brands and been financially devastating.

Technology-dependent. Food manufacturers face the pressures that are common to all manufacturers. They need information reporting systems and digital devices to manage and automate operations, track inventory, keep the right people informed, support decisions, and collaborate with business partners.

3. How have dashboards on the factory floor impacted performance at McCain Foods?

Dashboards have created healthy competition that has led to better performance. Ten-foot dashboards hang on factory walls of plants around the world. They are strategically placed near the cafeteria so employees can see the KPIs and performance metrics of every plant. The competition among factories has totally transformed the work environment—and organizational culture—in the plants and increased production performance.

4. What might be the KPIs of a frozen food manufacturer such as McCain Foods?

Answers may vary.

Some answers may be: Sales (total, direct, channel), number of recalls year to date, perished inventory (or non-perished)

5. Explain how visibility about operations and performance created healthy competition among McCain's factory workers.

Visibility of KPIs and performance metrics of every plant allowed for everyone to know in near real time exactly how well they are doing compared to other plants. This created a healthy sense of competition between plants, as they each could see their performance compare to that of the others.

6. Being able to make reliable predictions can improve business performance. Explain why.

Reliable predictions allow businesses to better decisions, anticipate business needs, prepare for upcoming changes in the market (especially seasonal markets), and control their production variables, including costs, more closely. Therefore, by having reliable predictions, businesses can optimize their performance and ultimately their profit.

Case 2: Restaurant Creates Opportunities to Engage Customers

1. What software capabilities did Pei Wei need to launch its marketing campaign?

Pei Wei needed software to provide massive e-mail and messaging capabilities, including burst sending, which would require the concomitant infrastructure and architecture to handle high-volume demand. They also needed the ability to respond in real-time, as well as quickly and easily configure messages triggered by external events, like purchases or website interactions. They needed to be able to interact with customers via e-mail, the Web, Twitter, and FaceBook.

2. What factors contributed to the success of Pei Wei's campaign?

They had to have the technical ability to reach out to a mobile market and provide an opportunity to engage customers. They used multiple interactive channels to connect with current and potential customers, offering a BOGO coupon.

3. Why is a high-capacity (massive) infrastructure needed to launch e-mail or text campaigns?

Such advertising campaigns expect to contract, and hopefully draw responses from, a large number of customers. The infrastructure needs to have the capacity to handle both a large number of outgoing e-mail or text messages and the incoming responses, with possible further replies to the customers. This traffic must be handled within a short time frame and without loss. A high-capacity infrastructure is required to ensure such performance.

4. Visit ExactTarget.com. Identify and describe how the vendor makes it easy for companies to connect via e-mail and Twitter.

Answers may vary.

Example: ExactTarget provides drag-and-drop content tools to create relevant, automated messages; step-by-step playbooks walk through the creation of pre-defined e-mail marketing campaigns; the ability to easily filter your subscriber base to send targeted e-mail messages based on any customer data with applications like Audience Builder; tools to track and optimize e-mail campaigns. Solutions are scalable as volume increases.

5. What solutions for small businesses does ExactTarget offer?

Answers may vary.

Small businesses have a dedicated Relationship Manager, access to the Global Support team 24/7/365; access to 3sixty, the online user community; access to on-demand tutorials, free webinars and how-to reports; automated marketing from the ExactTarget Marketing Cloud sends relevant, timely communications to your consumers at every stage of the customer lifecycle; small business content management tools help to send personalized, segmented emails that deliver the right message, at the right time, to the right subscriber; free, unlimited access to online learning courses through the ExactTarget Academy.

Case 3: ACCESS NYC—IT Strategy and Transformation

1. What did you learn from the video?

Answers may vary.

2. What is the value of knowing and doing more?

Answers may vary.

Should include something like: the more you know, the more likely you will know the right thing to do to achieve what truly matters for your business and your customers.