

## 4.4: E-Commerce Technology

### Learning Objectives

1. Explain what an e-commerce platform is.
2. Discuss the importance of a CRM solution to a small business.
3. Explain m-commerce and why small businesses should consider incorporating it into their e-commerce strategy.
4. Explain the significance of Web 2.0 to a small business.

As discussed in Chapter 1, digital technology has put small business on a more equal footing with its larger competitors. Although it is certainly true that a commitment to technology is not for every small business, it is also true that technology is transforming small business in important ways: (1) businesses are easier to find online than ever before; (2) communicating with customers is shifting to e-mail marketing and social media; (3) e-mail and mobile phones are improving productivity; (4) collaboration among employees who are working in multiple venues is easier; (5) outsourcing is easier; and (6) more companies are shifting their attention to how they can sell products and services online. Using technology well is proving to be one of the most prominent drivers of business success. Ross Dawson, “Six Ways Technology Is Transforming Small Business,” *Ross Dawson Blog*, November 18, 2009, accessed October 10, 2011, [rossdawsonblog.com/weblog/archives/2009/11/six\\_ways\\_techno.html](http://rossdawsonblog.com/weblog/archives/2009/11/six_ways_techno.html).

Technology specifically related to e-commerce is a large umbrella. E-commerce platforms, customer relationship management (CRM), going mobile, and Web 2.0 will be discussed in this section.

### E-Commerce Platforms

An **e-commerce platform** is the software that makes it possible for a business to sell online. In general, the core e-commerce platform should support basic requirements such as custom styling, **search engine optimization**, credit card processing, promotions, catalog management, analytics, product browsing, checkout, and order management. Additionally, e-commerce platforms should provide self-service content management systems (CMS), support multiple languages, and support multiple stores. “Ecommerce Integration,” *Treehouse Logic*, May 20, 2010, accessed October 10, 2011, [blog.treehouselogic.com/2010/05/20/ecommerce-integration](http://blog.treehouselogic.com/2010/05/20/ecommerce-integration). These requirements may vary slightly depending on which type of e-commerce is being conducted. **Analytics** refer to the tools that can track the different ways people use your website and then make sense of the data. Justin Whitney, “What Is Web Analytics?,” *AllBusiness.com*, 2010, accessed October 10, 2011, [www.allbusiness.com/marketing-advertising/marketing-advertising/11382028-1.html](http://www.allbusiness.com/marketing-advertising/marketing-advertising/11382028-1.html). Analytics will be discussed in further detail in Chapter 8.

The **all-in-one e-commerce platform solution** has become more popular with online merchants. This solution provides everything: the core e-commerce platform plus hosting, accounting, analytics, and marketing tools such as e-mail management. Because all the tools are integrated, they work together. James Macguire, “Starting Your Own E-Business, Pt 2: Choosing a Platform,” *ecommerce-guide.com*, September 26, 2005, accessed October 10, 2011, [www.ecommerce-guide.com/solutions/building/article.php/3551461](http://www.ecommerce-guide.com/solutions/building/article.php/3551461). It has also been reported that e-commerce platforms are now enabling online retailers to better reach consumers through mobile devices and social media sites. “E-commerce Platforms Offer Retailers New Social and Mobile Features,” *Internet Retailer*, April 22, 2010, accessed October 10, 2011, [www.internetretailer.com/ECTR/article.asp?id=34549](http://www.internetretailer.com/ECTR/article.asp?id=34549). This is great news for the small business that wants to tap into these growing markets.

The list of e-commerce software providers is always growing, but there are many products that are tailored specifically for small to medium-sized businesses. Some of the names that come up frequently for small business are BigCommerce, Magento, Affinity Internet, ProStores (for the smaller merchant), and Miva Merchant. However, this list is not exhaustive, and new products enter the marketplace all the time.

### Customer Relationship Management

**Customer relationship management**, as mentioned in Chapter 2, refers to “a customer service approach that focuses on building long-term and sustainable customer relationships that add value for the customer and the company.” Efraim Turban et al., *Electronic Commerce: A Managerial Perspective* (Upper Saddle River, NJ: Pearson/Prentice Hall, 2008), 75. Some small businesses may wonder whether they really need the added complexity of a small business CRM solution. The answer will depend to a large extent on the size of the business and its growth objectives. However, it has been observed that there is no small business out there that,

“sometimes in spite of themselves, didn’t benefit from implementing a...CRM or its watered down equivalent—a simpler Contact Management software solution.” Perry Norgarb, “Does Your Small Business Even Need a CRM Software Solution?,” *SmallBizCRM*, accessed October 10, 2011, [www.smallbizcrm.com/does-your-small-business-need-a-software-solution.html](http://www.smallbizcrm.com/does-your-small-business-need-a-software-solution.html). Recent studies have revealed that CRM applications account for the following: Peter Norgarb, “So Where Do You Start? How Do You Start?,” 2010, [www.smallbizcrm.com](http://www.smallbizcrm.com).

- Revenue increases of up to 41 percent per salesperson
- Decreased sales cycles of over 24 percent
- Lead conversion rate improvements of over 300 percent
- Customer retention improvements of 27 percent
- Decreased sales and marketing costs of 23 percent
- Improved profit margins of over 2 percent

It has also been noted that companies can boost their profits by almost 100 percent by retaining just 5 percent of their customers. Peter Norgarb, “So Where Do You Start? How Do You Start?,” 2010, [www.smallbizcrm.com](http://www.smallbizcrm.com). What does this mean for the small business that chooses to go with a CRM solution? As long as the solution is well implemented and actually used, there should be an immediate payoff and productivity improvement throughout the company. Additionally, choosing to engage in e-commerce makes the selection of a CRM solution even more important because the quality of customer relationships is so important to online success.

Although there was a time when CRM solutions were not feasible for small business, they are available today for even the smallest businesses. These CRM solutions are priced and designed with the small business in mind.

## Going Mobile

As defined earlier in this chapter, **mobile e-commerce (m-commerce)** refers to the purchase of goods and services through wireless technology, such as cell phones and handheld devices. It consists of two primary components: “...the ability to use a wireless phone or other mobile device to conduct financial transactions and exchange payments over the Internet...and the ability to deliver information that can facilitate a transaction—from making it easy for your business to be ‘found’ via a mobile Web browser to creating mobile marketing campaigns such as text promotions and loyalty programs.” Laurie McCabe, “Mobile Commerce: Coming to Ecommerce Sites Near You,” *ecommerce-guide.com*, September 14, 2010, accessed October 10, 2011, [www.ecommerce-guide.com/news/trends/article.php/3903526/Mobile-Commerce-Coming-to-Ecommerce-Sites-Near-You.htm](http://www.ecommerce-guide.com/news/trends/article.php/3903526/Mobile-Commerce-Coming-to-Ecommerce-Sites-Near-You.htm). It is predicted that in 2015 m-commerce revenues will make up 8.5 percent of all US e-commerce revenue and 20 percent of global e-commerce revenue. In the United States, that will represent only one half of 1 percent of all retail revenues. Ian Mansfield, “US Mobile Ecommerce Revenues Set to Rise to \$23.8bn in 2015,” *Cellular-News*, April 14, 2010, accessed October 10, 2011, [www.cellular-news.com/story/42841.php](http://www.cellular-news.com/story/42841.php). However, even though m-commerce is lagging behind other mobile uses, wireless devices and m-commerce are expected to create another revolution in e-commerce. The most important thing that online retailers can do is to “...take action soon because the mobile environment is adapting much more quickly than the web.” Brendan Gibbons, “To Tap Mobile Buyers, First Determine Their Needs,” *Practical eCommerce*, March 16, 2010, accessed October 10, 2011, [www.practicalecommerce.com/articles/1732-To-Tap-Mobile-Buyers-First-Determine-Their-Needs](http://www.practicalecommerce.com/articles/1732-To-Tap-Mobile-Buyers-First-Determine-Their-Needs).

Small businesses need to sort out the hype from what’s real. What’s real are the facts and the trends. Jim Jansen, “Online Product Research: 58% of Americans Have Researched a Product or Service Online,” September 29, 2010, accessed October 10, 2011, [pewinternet.org/Reports/2010/...-Research.aspx](http://pewinternet.org/Reports/2010/...-Research.aspx); “Majority of Online Retailers Plan to Have Mobile Ecommerce Websites by 2011,” *Deluxe for Business*, August 20, 2010, accessed October 10, 2011, [deluxesmallbizblog.com/web-de...bsites-by-2011](http://deluxesmallbizblog.com/web-de...bsites-by-2011); Laurie McCabe, “Mobile Commerce: Coming to Ecommerce Sites Near You,” *ecommerce-guide.com*, September 14, 2010, accessed October 10, 2011, [www.ecommerce-guide.com/news/trends/article.php/3903526/Mobile-Commerce-Coming-to-Ecommerce-Sites-Near-You.htm](http://www.ecommerce-guide.com/news/trends/article.php/3903526/Mobile-Commerce-Coming-to-Ecommerce-Sites-Near-You.htm); Ian Mansfield, “Mobile Internet Devices Expected to Surpass One Billion by 2013,” *Cellular-News*, December 9, 2009, accessed October 10, 2011, [www.cellular-news.com/story/40997.php](http://www.cellular-news.com/story/40997.php); John Lawson, “75% of Online Retailers Are Ramping Up Mobile Strategies,” *ColderICE*, accessed June 1, 2012, [colderice.com/75-of-online-re...le-strategies/](http://colderice.com/75-of-online-re...le-strategies/); Aaron Smith, “Mobile Access 2010,” *Pew Internet & American Life Project*, July 7, 2010, accessed October 10, 2011, [www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx](http://www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx); and Ian Mansfield, “US Mobile Ecommerce Revenues Set to Rise to \$23.8bn in 2015,” *Cellular-News*, April 14, 2010, accessed October 10, 2011, [www.cellular-news.com/story/42841.php](http://www.cellular-news.com/story/42841.php).

1. From the second quarter 2009 through the second quarter 2010, Amazon’s customers around the world used mobile devices to buy more than \$1 billion in products. This is a trend that any small business with an e-commerce website should watch closely.

2. Mobile devices connected to the Internet are reshaping the way people are going about their personal and professional lives.
3. One of the fastest growth areas in e-commerce will be using mobile devices to make online purchases.
4. Close to 80 percent of organizations plan to have mobile websites by the end of 2011. Online retailers without an m-commerce strategy will be in the minority.
5. Handheld devices are increasingly being used to research products, compare prices, and buy online while shopping.
6. A central driver to m-commerce growth is **smartphone** ownership and the corresponding mobile Internet use.
7. Nearly 58 percent of Americans have researched a product or a service online.
8. Among cell phone owners, 11 percent purchased a product or a service using their phones.

#### Video Clip 4.4.1

*Mobile E-Commerce Capabilities*



*Gene Alvarez, Gartner Group, discusses m-commerce.*

Major retailers have been able to easily offer remote access to customers who want to make purchases using mobile devices (e.g., Target and Nordstrom). Software is now available for small businesses to offer some of the same bells and whistles, giving their online customers the ability to shop via smartphones. Stuart J. Johnston, "Small Business Ecommerce Trends: Shop by Smartphone," *Small Business Computing.com*, September 7, 2010, accessed October 10, 2011, [www.smallbusinesscomputing.com/news/article.php/3902136/Small-Business-Ecommerce-Trends-Shop-by-Smartphone.html](http://www.smallbusinesscomputing.com/news/article.php/3902136/Small-Business-Ecommerce-Trends-Shop-by-Smartphone.html).

Mobile e-commerce may not be for all small businesses, but a small business owner who is already in e-commerce or has plans to do so should give it consideration. Multichannel shoppers tend to purchase more, so small companies need to think of ways to "effectively engage customers by delivering consistent, rich experiences across all channels, including mobile, to maintain and fuel double-digit ecommerce industry growth rates." "Majority of Online Retailers Plan to Have Mobile Ecommerce Websites by 2011," *Deluxe for Business*, August 20, 2010, accessed October 10, 2011, [deluxesmallbizblog.com/web-design/search-marketing/majority-of-online-retailers-plan-to-have-mobile-ecommerce-websites-by-2011](http://deluxesmallbizblog.com/web-design/search-marketing/majority-of-online-retailers-plan-to-have-mobile-ecommerce-websites-by-2011). Online customers are ready and increasingly interested in using mobile devices to make purchases.

#### Web 2.0

There is no agreement about an exact definition of **Web 2.0** but, in general, it refers to websites that are more interactive, engaging, and interesting than before. A Web 2.0 site is one where visitors can engage with you, your business, and your site by doing things like the following: Steve Strauss, "Maximizing Your Web Presence Is Key to Building Your Small Business," *USA Today*, April 11, 2010, accessed October 10, 2011, [www.usatoday.com/money/smallbusiness/columnist/strauss/2010-04-11-building-web-presence\\_N.htm](http://www.usatoday.com/money/smallbusiness/columnist/strauss/2010-04-11-building-web-presence_N.htm).

- Posting comments on your blog or your articles or chatting in a forum
- Retweeting your content, sharing it on Facebook, or Digging it

- Watching a video, listening to a podcast, or participating in a webinar
- Taking a quiz or responding to a poll

Web 2.0 is about having a conversation with your customers. This is very different from **Web 1.0**, where websites were static and all you could do was read. Web 2.0 sites are collaborative and interactive. The small business that creates a site that engages and interacts with people, that makes people want to stick around, will be giving people more of a chance to create a connection with the business. Steve Strauss, “Maximizing Your Web Presence Is Key to Building Your Small Business,” *USA Today*, April 11, 2010, accessed October 10, 2011, [www.usatoday.com/money/smallbusiness/columnist/strauss/2010-04-11-building-web-presence\\_N.htm](http://www.usatoday.com/money/smallbusiness/columnist/strauss/2010-04-11-building-web-presence_N.htm). These closer ties will increase customer awareness and consideration of the company’s products and services, improve customer satisfaction, increase the chances of loyalty, increase the chances for sales, and add to the bottom line. There will also be significant benefits realized between the small business and its suppliers and partners: lowering the costs of communication and doing business.

A much smaller percentage of small businesses have adopted elements of Web 2.0 as compared to large enterprises and midsize companies. Heather Claney, “Small Businesses Apparently Slow to Adopt Web 2.0 Philosophies,” *IT Knowledge Exchange*, June 29, 2008, accessed October 10, 2011, [itknowledgeexchange.techtarget.com/channel-marker/small-businesses-apparently-slow-to-adopt-web-20-philosophies](http://itknowledgeexchange.techtarget.com/channel-marker/small-businesses-apparently-slow-to-adopt-web-20-philosophies). However, many small businesses are using Web 2.0 in a variety of positive ways. Anita Campbell, “Real Life Examples of Business Owners Using Social Media,” *Small Business Trends*, July 3, 2008, accessed October 10, 2011, [smallbiztrends.com/2008/07/real-life-examples-of-business-owners-using-social-media.html](http://smallbiztrends.com/2008/07/real-life-examples-of-business-owners-using-social-media.html).

- One business owner operated a Facebook group, attracted interest in the business, and developed loyalty through the group.
- Another business routinely put press releases online and attested to their value at getting the company’s website found in search engines.
- The owner of a product company reported good results with videos that were loaded on YouTube and on the company’s website. The video attracted people to the site and also engaged existing visitors on the site.
- A small real-estate company has a Facebook page, a blog, and a property value calculator that allows homeowners to calculate an approximation of their home’s value without having to speak with a realtor. The information is then sent via e-mail.

As Web 2.0 keeps evolving, the value and opportunities it will bring to small businesses will continue to grow. “The increased flow of two-way information between business and customer, the increase in information distribution through blogs and wikis, and the increased participation of customers in product improvement and even design will continue. By adopting Web 2.0 technologies and tools, small businesses can improve market share, profit, and reputation, now and in the future.” Sang-Heui Lee, David DeWester, and So Ra Park, “Web 2.0 and Opportunities for Small Businesses,” *Service Business* 2, no. 4 (2008): 335–45.

#### Video Clip 4.4.2

Web 2.0



*Evolution of website technology to Web 2.0.*

### KEY TAKEAWAYS

- E-commerce platforms make it possible for businesses to sell online. The all-in-one platform solution has become more popular with online merchants. There are many platforms that are tailored specifically for small and medium-sized businesses.
- Small businesses should think about CRM. CRM solutions are now available for even the smallest of businesses.
- Even though m-commerce is lagging behind other mobile uses, wireless devices and m-commerce are expected to create another revolution in e-commerce.
- Web 2.0 is important. It is about having a conversation with your customers. Small businesses need to learn about it and strongly consider incorporating it into their e-commerce strategies.
- Web 2.0 keeps evolving, so the value and opportunities it will bring to small businesses will continue to grow.

### EXERCISES

1. Select three small business websites. Identify the features that are examples of Web 2.0.
2. Find three CRM solutions (software products) online that are geared to small businesses. Compare the features. If you owned a small business, which one would you choose? Why?

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