CASE STUDY 1

zulily

On November 15, 2013, zulily, a Seattle corporation, issued its initial stock (i.e., went public) at $22 a share. By the end of the day, the stock was trading at $38, and 4 months later it reached $62, nearly tripling its initial price. At $62, the holdings of the company's chairman, Mark Vadon, totaled more than $2B.

Before dismissing this as just another successful public offering, consider the company. What is its business model? A high-tech company offering the latest gee-whiz technology? A new tablet? A new Facebook competitor? Another way of sharing pictures? No, no, no, and no. zulily sells to mothers: primarily children's clothes and toys, but also women's clothes, accessories, and décor items. The oldest and most traditional forms of retail. So what is the excitement? Cofounders Mark Vadon and Darrell Cavens found a way to harness information technology to provide an entertaining shopping experience to mothers, one that offers name-brand goods as well as unique and difficult-to-find off-brands and often sells them at substantial discounts. According to the zulily prospectus, 45 percent of its sales occur over mobile devices, as mothers churn through the day's specials while they sit in playgrounds, in cars waiting for kids at soccer practice, or anywhere else young mothers have a break long enough to shop on their mobile devices.

One of your goals for this class should be to learn *to assess, evaluate, and apply emerging information technology to business.* Seem like an empty platitude? Not to Mr. Vadon, who turned that exact principle into $2B ... so far.

The zulily Business Model

zulily conducts flash sales of children's and women's clothing and other items of interest to women. Sales open at 6 AM Pacific time each day and last 72 hours. Customers find brand-name merchandise intermingled with hard-to-find boutique products. zulily uses the term *curated sale* to mean the sale of items specifically selected and grouped by its shopping experts to be exciting to women. Because these curated sales provide interesting variety, women enjoy the thrill of discovery while shopping. zulily thus provides entertainment as well as a rewarding shopping experience. And those low prices, some as low as 70 percent off retail, are available for only 72 hours. So, shop and buy now, ladies!

Does it work? Apparently so. As shown in Figure 1-13, in 5 years zulily increased the number of its active customers by

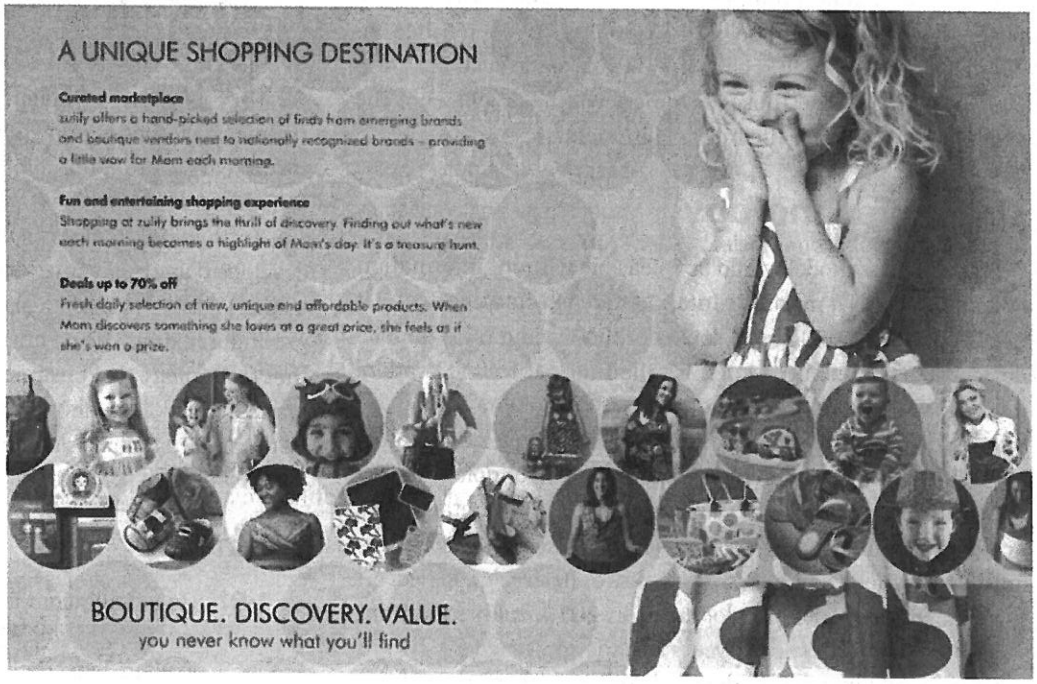

FIGURE 1-12
zulily Merchandise Variety
Courtesy of Zuilly Inc. Used by permission

	2010	2011	2012	2013	2014	2015
Number of active customers (thousands)	157	791	1,580	3,200	4,900	5,000
Revenue (millions)	$18	$143	$331	$696	$1,200	$1,361
Sales per active customer	$117	$180	$210	$218	$245	$272

FIGURE 1-13
zulily Performance

3,185 percent while increasing revenue per active customer by 233 percent. That combination resulted in revenue growth from $18M to $1.36B; that's a 137 percent annual growth rate!

How zulily Did It

The sales process begins when zulily buyers identify goods to be sold. Buyers negotiate with vendors to establish both wholesale and retail prices, terms, and maximum quantities by size. zulily then obtains sample merchandise and, if necessary, photographs it in-house. It also writes ad copy to be displayed along with the photos during the sale. By taking photos when needed and writing its own ad copy, zulily ensures a consistent quality of presentation on its site. zulily also adds considerable value to smaller vendors who do not otherwise have access to such high-quality expertise.

Items are then grouped together into 3-day sales events. zulily accepts orders for items up to the maximum quantity negotiated with the vendor. At that point, the item (or a particular size of an item) is marked as no longer available, thus increasing pressure to buy remaining items *now*. After the event closes, zulily orders the items from the vendor, receives them, packages them, and then ships the items to customers. zulily thus maintains almost no inventory. Customers receive their items in zulily packaging, thus reinforcing the zulily brand.

zulily is subject to errors and mistakes from vendors. If, for example, the vendor promises to ship 1,000 pairs of shoes of a particular size and zulily sells all 1,000 pairs, but later the vendor delivers only, say, 900 pairs in that size, some customers will be disappointed. And those customers will hold zulily, not the vendor, responsible for their disappointment.

Use of Technology

zulily's business model would be infeasible without information systems. For one, it needs the Internet to reach customers, and it needs mobile technology to do so on phones and other mobile devices. Further, zulily buyers use the Internet to find vendors and items to sell. But what else?

In the prospectus for its initial public offering, zulily stated, "Continual innovation through investment in technology is core to our business."[18] It states that it developed a proprietary technology platform to manage the enormous spikes in Web processing demand that occur due to the nature of flash sales. Reflect on the challenges of such development: In 2010, zulily's platform supported $18M in sales; 5 years later, it supported $1.36B in sales, a 75-fold increase in demand. You will learn some of the ways that such enormous growth can be accommodated in Chapter 6. For now, understand that such growth would be impossible in a world without information systems.

But there's more. In that same prospectus, zulily stated that it has developed "extensive data collection and analytics capabilities" that enable it to anticipate its customers' shopping preferences and to tailor the customers' shopping experiences accordingly. So, as with any good salesperson, what you see and how it is shown to you depend on what you've purchased in the past. That same data can also be analyzed to help buyers determine the items customers are most likely to purchase. You will learn about data analytics in Chapter 9.

Growth-Management Problems

Such spectacular growth does not come without problems. zulily increased its headcount from 329 at the end of 2011 to more than 3,000 by mid-2015. That's an increase in zulily's workforce of more than 900 percent in 3 years. That rate of growth is exceedingly difficult to manage, a fact the company recognized:

> To support continued growth, we must effectively integrate, develop and motivate a large number of new employees, while maintaining our corporate culture. In particular, we intend to continue to make substantial investments to expand our merchandising and technology personnel.[19]

Unfortunately, zulily is located just down the street from Amazon and Nordstrom and just across a lake from Microsoft. Finding (and retaining) those merchandising and technology personnel in Seattle will be difficult. In its annual report, zulily mentioned particularly the need to hire mid-level managers.

Learning from zulily

In mid-2015 Liberty Interactive's QVC Group bought zulily for $2.4B.[20] It's hard to imaging a startup in a traditional market (women's clothes) could go from a valuation of $0 to $2.4B in just 5 years. Or that the company could increase its workforce by 900 percent in 4 years.

In the final analysis, zulily succeeded because its founders developed an innovative application of information systems technology. As you will learn, the technology zulily uses is not groundbreaking. The creative genius was finding a way to apply that technology to a business opportunity and then to have the managerial skill to develop that idea into a thriving business. Without doubt, dozens of such opportunities lie in front of you. You just need to recognize and build on them.

QUESTIONS

1-9. Go to zulily.com and register. Identify features of the site that make shopping entertaining to mothers and explain why those features entertain. Explain why this is important to the zulily business model.

1-10. Go to Nordstrom.com and shop for children's clothes. How does the zulily shopping experience differ from that at Nordstrom? Briefly describe the advantages and disadvantages of each type of experience.

1-11. If you were a buyer for zulily, what data would you like to have about customer purchase habits?

1-12. If you were a buyer for zulily, what data would you like to have about past vendor performance?

1-13. In the general course of life, 2-year-old boys become 3-year-old boys, 4-year-old girls become 5-year-old girls, and so on. How can zulily use this not-so-remarkable phenomenon to customize a customer's shopping experience? What data would you need to do this?

1-14. As a business professional, it is likely information systems professionals will ask you data questions like those in questions 1-11 to 1-13. What is the best way for you to respond? Verbally in a meeting? With a written document? With a sketch or diagram? How will you know if you have been understood?

MyMISLab™

Go to the Assignments section of your MyLab to complete these writing exercises.

1-15. The text states that data should be worth its cost. Both cost and value can be broken into tangible and intangible factors. *Tangible* factors can be directly measured; *intangible* ones arise indirectly and are difficult to measure. For example, a tangible cost is the cost of a computer monitor; an intangible cost is the lost productivity of a poorly trained employee.

Give five important tangible and five important intangible costs of an information system. Give five important tangible and five important intangible measures of the value of an information system. If it helps to focus your thinking, use the example of the class scheduling system at your university or some other university information system. When determining whether an information system is worth its cost, how do you think the tangible and intangible factors should be considered?

1-16. The U.S. Department of Labor publishes descriptions of jobs, educational requirements, and the outlook for many jobs and professions. Go to its site at *www.bls.gov* and answer the following questions:

a. Search for the job title *systems analyst*. Describe what such people do. Is this a job that interests you? Why or why not? What education do you need? What is the median pay and job growth projection?

b. Click the Similar Occupations link at the bottom of the page. Find another job that you might want. Describe that job, median salary, and educational requirements.

c. The BLS data is comprehensive, but it is not up to date for fast-changing disciplines such as IS. For example, one very promising career today is social media marketing, a job that does not appear in the BLS data. Describe one way that you might learn about employment prospects for such emerging job categories.

d. Considering your answer to part c, describe an IS-related job that would be the best match for your skills and interests. Describe how you can learn if that job exists.

ENDNOTES

1. Gordon Bell. "Bell's Law for the birth and death of computer classes: A theory of the computer's evolution" November 1, 2007. *http://research.microsoft.com/pubs/64155/tr-27-146.pdf*
2. These figures were complied from both Intel's specification archive (http://ark.intel.com/) and TechPowerUP's CPU Database (http://www.techpowerup.com/cpudb/).
3. Zipf's Law is a more accurate, though less easily understood, way of explaining how the value of a network increases as additional network nodes are added. See Briscoe, Odlyzko, and Tilly's 2006 article "Metcalfe's Law Is Wrong" for a better explanation: *http://spectrum.ieee.org/computing/networks/metcalfes-law-is-wrong.*
4. Lynn A. Kaoly and Constantijn W. A. Panis, *The 21st Century at Work* (Santa Monica, CA: RAND Corporation, 24), p. xiv.