One manager at Lego summed it up nicely, "The toy world moves onwards constantly, and Lego needs to re-invent itself continuously. Significant corporate re-shaping introduced new energy to the company." [21] He went on to say that simplifying Lego's IT systems and implementing an efficient product development process that was able to maintain quality and cost favorably positioned Lego to respond to the fast changing pace of the toy industry.

Discussion Questions

1. How did the information systems and the organization design changes implemented by Knudstorp align with the changes in business strategy?
2. Which of the generic strategies does Lego appear to be using based on this case? Provide support for your choice.
3. Are the changes implemented by Knudstorp an indication of hypercompetition? Defend your position.
4. What advice would you give Knudstorp to keep Lego competitive, growing, and relevant?

Sources: Adapted from http://www.nytimes.com/2009/09/06/business/global/06lego.html (accessed August 21, 2015); Brad Wieners, "Lego Is for Girls" (December 19, 2011), 68–73; information from Lego's 2012 annual report, http://www.lego.com/en-us/aboutus/news-room/2013/february/annual-result-2012 (accessed March 29, 2015); and "Lego Case Study," http://thelegocasestudy.com (accessed March 29, 2015).

■ CASE STUDY 1-2 Google

Started in the late 1990s, Google grew rapidly to become one of the leading companies in the world. Its mission is "to organize the world's information and make it universally accessible and useful." It is operating on a simple but innovative business model of attracting Internet users to its free search services and earning revenue from targeted advertising. In the winner-takes-all business of Internet search, Google has captured considerably more market share than its next highest rival, Yahoo. This has turned Google's Web pages into the Web's most valuable real (virtual) estate. Through its two flagship programs, AdWords and AdSense, Google has capitalized on this leadership position in searching to capture the lion's share in advertisement spending. AdWords enables businesses to place ads on Google and its network of publishing partners using an auction-engine algorithm to decide which ad will appear on a given page. On the other hand, Google uses AdSense to push advertisements on publishing partners' Web sites targeting a specific audience and share ad revenue with the publishing partner. This creates a win–win situation for both advertisers and publishers; Google makes more than 90% of its revenue from ads.

Even as a large company, Google continues to take risks and expand into new markets. Innovation is at the core of their enterprise. Sergey Brin and Larry Page, the founders, declared in Google's IPO prospectus, "We would fund projects that have a 10% chance of earning a billion dollars over the long term. . . We place smaller bets in areas that seem very speculative or even strange. As the ratio of reward to risk increases, we will accept projects further outside our normal areas." They add that they are especially likely to fund new types of projects when the initial investment is small.

Google promotes a culture of creativity and innovation in a number of ways. It encourages innovation in all employees by allowing them to spend 20% of their time on a project of their own choosing. In addition, the company offers benefits such as free meals, on-site gym, on-site dentist, and even washing machines at the company for busy employees.

Despite an open and free work culture, a rigid and procedure-filled structure is imposed for making timely decisions and executing plans. For example, when designing new features, the team and senior managers meet in a large conference room. They use the right side of the conference room walls to digitally project new features and the left side to project any transcribed critique with a timer clock giving everyone 10 minutes to lay out ideas and finalize features. Thus, Google utilizes rigorous, data-driven procedures for evaluating new ideas in the midst of a chaotic innovation process.

Nine notions of innovations are embedded in the organizational culture, processes, and structure of Google:[22]

1. "Innovation Comes from Anywhere": All Google employees can innovate.
2. "Focus on the User": When focus is on the user, the money and all else will follow.

[21] https://www.vmware.com/files/pdf/partners/sap/sap-vmware-lego-cs-en.pdf (accessed September 11, 2015).

[22] Kathy Chin Long, "Google Reveals its Nine Principles of Innovations," *Fast Company*, http://www.fastcompany.com/3021956/how-to-be-a-success-at-everything/googles-nine-principles-of-innovation (accessed March 30, 2015).

3. "Aim to be Ten Times Better": To get radical and revolutionary innovation, think 10 times improvement to force out-of-the-box thinking.
4. "Bet on Technical Insights": Trust your organization's unique insights and bet on them for major innovation.
5. "Ship and Iterate": Do not wait for perfection; let users help you to "iterate."
6. "Give Employees 20 Percent Time": Employees will delight you with their creative thinking. Give them 20 percent of their work time to pursue projects they are passionate about.
7. "Default to Open Processes": Make processes open to all to tap into the collective energy of the user base to find great ideas.
8. "Fail Well": Do not attach stigma to failure. If you do not fail often, you are not trying hard enough. Let people and projects fail with pride.
9. "Have a Mission That Matters": Google believes that its work has a positive impact on millions of people and that this is motivating its people every day.

Keeping up with the organizational strategy of Google, its IT department provides free and open access to IT for all employees. Rather than keeping tight control, Google allows employees to choose from several options for computer and operating systems, download software themselves, and maintain official and unofficial blog sites. Google's intranet provides employees information about every piece of work at any part of the company. In this way, employees can find and join hands with others working on similar technologies or features.

In building the necessary IT infrastructure, Google's IT department balances buying and making its own software depending on its needs and off-the-shelf availability. Google thinks of every IT decision "at Web Scale" to make sure its technology works well for its customers. Given the nature of business, security of information resources is critical for Google. For instance, its master search algorithm is considered a more valuable secret formula than Coca-Cola's. However, rather than improving IT security by stifling freedom through preventive policy controls, Google puts security in the infrastructure and focuses more on detective and corrective controls. Its network management software tools combined with a team of security engineers constantly look for viruses and spyware as well as strange network traffic patterns associated with intrusion.

Discussion Questions

1. How is Google's mission statement related to its business strategy?
2. How does Google's information systems strategy support its business strategy?
3. How does Google's organizational strategy support its business strategy?
4. Which of Porter's three generic strategies does Google appear to be using based on this case? Provide a rationale for your response.
5. Analyze Google's strategy and the type of market disruption it has created using a dynamic environment perspective.

Sources: Adapted from Michelle Colin, "Champions of Innovation," *Businessweek* 3989 (June 18, 2006), 18–26, http://www.bloomberg.com/bw/stories/2006-06-18/champions-of-innovation; Vauhini Vara, "Pleasing Google's Tech-Savvy Staff" (March 18, 2008), B6; Jason Bloomberg, "Google's Three-Pronged Enterprise Strategy," Forbes Online (December 12, 2014); and Connor Forrest, "Four Ways Google Makes Money," *TechRepublic* (January 16, 2015), http://www.techrepublic.com/article/four-ways-google-makes-money-outside-of-advertising/ (accessed August 21, 2015).