General electric essay

Can GE Remake Itself as a Digital Firm? General Electric (GE) is the world's largest diversified manufacturer. Fortune named GE " America's Most Admired Company" in 1998, 1999, and 2000. Jack Welch, GE's CEO and Chairman since 1981, is often cited as the most admired CEO in the United States. Headquartered in Fairfield, Connecticut, the company consists of 20 units, including Appliances, Broadcasting (NBC), Capital, Medical Systems, and Transportation Systems. With the acquisition of Honeywell, announced in October 2000, GE became a company of $155 billion in revenue and 460, 000 employees in 100 countries. Despite GE's size and old-economy businesses, Internet Week awarded GE its e-Business company of 2000. Did GE transform itself into a digital firm? At a January 1999 meeting of 500 top GE executives in Boca Raton, Florida, Welch announced a new initiative to turn GE into an Internet company. Earlier initiatives transformed GE and are partially responsible for its phenomenal rise in profit over the past two decades.

Those initiatives were globalization of GE in the late 1980s, " products plus service" in 1995 which placed emphasis upon customer service, and Six Sigma in 1996, a quality program that mandated GE units to use feedback from customers as the center of the program. Welch announced that the Internet " will forever change the way business is done. It will change every relationship, between our businesses, between our customers, between our suppliers. By Internet-enabling its business processes, GE could reduce overhead costs by half, saving as much as $10 billion in the first two years. Gary Reiner, GE's corporate CIO, later explained " We are Web-enabling nearly all of the [purchasing] negotiations process, and we are targeting 100

percent of our transactions on the buy side being done electronically. " On the sell side Reiner also wanted to automate as much as possible, including providing customer service and order taking.

GE had quietly been involved with the Internet years before the Boca Raton meeting, conducting more purchasing and selling on the Internet than any other noncomputer manufacturer. For example within six months after beginning to use the Internet for purchasing in mid-1996, GE Lighting had reduced its purchasing cycle from 14 to seven days. It also reduced supply prices by 10% to 15% due to open bidding on the Internet.

In 1997 seven other GE units began purchasing via the Net. The company even sold the concept to others, including Boeing and 3M. Polymerland, GE Plastic's distribution arm, began distributing technical documentation over the Web in 1994. It put its product catalog on the Net in 1995 and in 1997 established a site for sales transactions. Its online system enables customers to search for product by name, number or product characteristics, download product information, verify that the product meets their specifications, apply for credit, order, track the shipment, and even return merchandise. Polymerland's weekly online sales climbed from $10, 000 in 1997 to $6 million in 2000. In 1998 GE Industrial Systems developed an artificial intelligence system that assigns field engineers to customer site visits, reducing the average dispatch time from 18 hours to four. Prior to the system its engineers could not handle all the customer calls for help.

The system handles thousands of constraints, such as not dispatching bearded engineers to sites requiring the wearing of facemasks. Industrial

Systems now markets the system to other companies. Welch ordered all GE units to determine how dot-com companies could destroy their businesses, dubbing this project DYB (destroy your business). Welch explained that if these units don't identify their weaknesses, others would. Once armed with these answers, managers were to change their units to prevent it from happening. Each of GE's 20 units created small cross-functional teams to execute the initiative. Welch also wanted them to move current operations to the Web and to uncover new Net-related business opportunities.

The final product was to be an Internet-based business plan that a competitor could have used to take away their unit's customers, and a plan for changes to their unit to combat this threat. Reiner ordered GE units to " come back with alternative approaches that enhance value to the customer and reduce total costs. " The Internet initiative started by changing GE's culture at the very top. GE's internal newsletters and many of Welch's memos became available only online. To give blue-collar workers access to the Net, GE installed computer kiosks on factory floors. One thousand top managers and executives, including Welch (who also had to take typing lessons), were assigned young, skilled mentors to work with them three-to-four hours per week to make them comfortable with the Web.

They had to become able to evaluate their competitors' Web sites and to use the Web in other beneficial ways. Every GE employee was given training. Welch announced in 2000, that GE would reduce administrative expenses by 30-to-50 percent (around $10 billion) within 18 months through use of the Internet. Many projects came out of the initiative. For example GE Medical Systems, which manufactures diagnostic imaging systems such as CAT

scanners and mammography equipment, identified its DYB threat as aggregators, such as WebMD, which offered unbiased information on competing products as well as selling them. GE products on these sites looked like just another commodity. The unit's major response was iCenter, a Web connection to customers' GE equipment to monitor the equipment operation at the customer site. Center collects data and feeds it back to each customer who can then ask questions about the operation of the equipment through the same site.

GE compares a customer's operating data with the same equipment operating elsewhere to aid that customer in improving performance. " We can say, ' Do you know you're only 60 percent as productive as another customer using the same equipment in another part of the world," explained Joe Hogan, Medical Systems' CEO, " and by doing x, y and z, you can increase productivity? '" In addition customers are now able to download and test upgraded software for 30 days prior to having to purchase it. The unit also began offering its equipment training classes online, enabling clients to take them at anytime. The aggregators were also auctioning off used equipment in demand in poorer countries. Medical Systems established its own site to auction its own used equipment, thus opening new markets (outside the U. S.). GE Aircraft adapted iCenter and now monitors its customers' engines while they are in flight.

GE Power Systems then developed its Turbine Optimizer that uses the Web to monitor any GE turbine, comparing its performance (such as fuel burn rate) with other turbines of same model anywhere in the world. Their site advises operators how to improve their turbines' performance and how much

money the improvements would be worth. The operator can even schedule a service call in order to make further performance improvements.

Late in 1999 GE Transportation went live with an e-auction system for purchasing supplies. Soon other units, including Power and Medical, adopted the system. GE later estimated the system would handle $5 billion in GE purchasing in 2000, and the company would do at least 50% of its purchasing online in 2001.

The ystem lowers prices for GE because approved suppliers bid against each other to obtain GE contracts. It also results in fewer specification errors and speeds up the purchasing process. GE estimates it saves between 10% and 15% of purchasing costs altogether. GE Appliances realized that appliances are traditionally sold through large and small retailers and that the Internet might destroy that model, turning appliances into commodities sold on big retail and auction sites. GE wanted to maintain the current system, keeping consumer loyalty to their GE brand (versus Maytag, Whirlpool & Frigidaire). Appliances developed a point-of-sale system placed in retail stores such as Home Depot where customers enter their own orders. The retailer is paid a percentage of the sale. The product is shipped from GE directly to the customer.

GE Appliances claims it can now take products from its factories and get them shipped anywhere in the United States virtually overnight on a cost-effective basis. In 2000 Appliances reported 45% of its sales, totaling $2. 5 billion, took place on the Internet. It estimates 67% of its sales will be on the Internet in 2001.

GE has been quick to let the world know of its progress. The corporation and its units have issued a blizzard of press releases touting the successes of each of GE's Internet initiatives and the consequent positive effect upon financial results. " In 1999, 30 percent of our orders came in via the Web," announced Marian Powell, the senior vice president for e-business at GE Capital Fleet Services. And in 2000 " we'll have over 60 percent. That's over a billion dollars in orders. CIO Reiner said " We are not talking about incremental change. We're talking total transformation. A January 2001 article by Mark Roberti of The Industry Standard was skeptical.

Roberti commended GE for embracing the Internet so quickly. He also noted that " these endeavors are unlikely to make GE vastly more profitable. . . because the company isn't using the Internet to reach new markets or create major new sources of revenue.

" Roberti questioned the great savings through Internet-based cost cutting that GE claimed. To cut costs by moving business processes online, a firm " must eliminate — or re-deploy — a significant number of employees" and " GE hasn't. " For example, Roberti says, 60% of rders to GE Capital Fleet Services are now placed online, but it has not reduced its callcenter staff. GE reports that its selling, general and administrative expenses as a percent of sales fell for the first nine months of 2000 from 24. 3 in 199 to 23. 6, a minor drop at best. Moreover, he notes caution coming from GE executives themselves.

For example while Reiner had projected a $10 billion saving over the next 18 months in 1999, in December 2000 he revised the 2001 savings to about $1.

6 billion-not an insignificant sum, but far from the gigantic savings predicted. Reducing costs by having customers and employees serve themselves via the Web has proved elusive at other companies as well, such as IBM and UPS. Roberti claims that the Internet has not brought GE a significant number of new customers. Overall, Roberti points out, " Through the third quarter of 2000, GE still hadn't demonstrated any significant improvement in its financial results that can be directly attributed to e-business. Although GE has achieved genuine progress and even leadership, the company could not be generating the savings management had been predicting.

He speculates that the purpose of the continuous declarations of great savings may be to boost the price of GE's stock. Perhaps, most importantly, Roberti claims that while GE's Internet activities will give the company a boost, it will take its competitors only a few months to catch up, leaving GE without any competitive advantage. Case Study Questions: 1. Summarize the business and technology conditions causing GE to launch its Internet initiative. 2. How is GE using Internet technology in its internal and external business processes? 3. What management, organization, and technology issues did GE have to address in its Internet initiative? 4. Evaluate GE's Internet initiative.

Is it successful? Is the company transforming itself into a digital firm? Why or why not? Sources: Mark Roberti, " General Electric's Spin Machine," The Industry Standard, January 15, 2001; Meridith Levinson, " Destructive Behavior," CIO Magazine, July 15, 2000; Diane Brady, " GE's Welch: ' This is the Greatest Opportunity Yet,'" Business Week, June 28, 1999; Jon Burke, " Is GE the Last Internet Company? Red Herring, December 19, 2000; Geoffrey

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