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Firms and Markets
Mini-Case

Jack Welch and General Electric

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Jack Welch and General Electric developed cult-like followings on Wall Street, culminating in a $7.1 million book deal (*Jack: Straight from the Gut*, published in 2001). During his 20-plus-year tenure, GE enjoyed enormous financial success and its methods were imitated worldwide. But what made GE so successful under Welch? How has it managed to excel in such a wide range of businesses?

History

General Electric is a large diversified industrial and financial company, whose major product lines include appliances, lighting products, aircraft engines, plastics, power systems, medical imaging, broadcasting, and a wide range of financial services (consumer finance, leasing, private equity, credit cards, and so on). See Exhibit 1. In 2000, GE employed 223,000 people in over one hundred countries and reported net earnings of $13b on revenue of $130b.

General Electric was incorporated in 1892 as a combination of three existing companies, one of them founded and run by the inventor Thomas Edison. It was an original member of the Dow – in fact, the only one still in existence. Over the years, it has been wildly successful, reinventing itself as time and markets changed. James Surowiecki (*New Yorker*, December 18, 2000) notes:

> In the twentieth century, GE was the industrial equivalent of the New York Yankees. Regardless of who ran the team, it just kept on winning. … Charles Coffin kept GE afloat during one of the worst depressions in American history. … [H]e essentially created the country's electricity infrastructure and outmaneuvered a competitor, Westinghouse, whose technology was superior early on. Gerald Swope and Owen Young reinvented GE as a consumer-goods powerhouse, then had to find a way to make money during the Great Depression. Ralph Cordiner made GE a space-age giant and masterminded its widely imitated decentralization.

Welch

In December 1980, Jack Welch was announced as the successor to Reginald Jones, himself a highly regarded executive, after an extensive internal search. Although GE was a profitable and respected company when he took over, its financial results during the 1970s were troubling to both its investors and senior management. Welch immediately made changes to the company's structure and management practices. Early newspaper

reports cite his aggressive and demanding management style and a willingness to shift GE out of its traditional lines of business. GE also changed from a highly-bureacratic organization to one with fewer layers of management focused on speed and responsiveness.

Welch stressed from the start the importance of being one of the top players in any industries in which it was involved. Welch told his colleagues that GE should be number 1 or number 2 in all of its businesses. If they were not, the options were to fix, sell, or shut them down. The "number 1 or number 2" mantra was intended to give a clear goal to managers of individual businesses. He soon found that he needed additional criteria about the businesses themselves. In his words, "being number 1 or 2 in hula hoops would not do very much good." (From Janet Lowe, *Jack Welch Speaks*.) Later on, some of his junior colleagues complained that the goal had turned into a game of market definition: managers could often define themselves to number 1 or 2 by defining the market narrowly. Appliances are a good example. Although GE was estimated to be number 3 in North America (see Exhibit 2), it was first in refrigerators and ranges/stoves. Welch's colleagues suggested he add the requirement that the market definition give GE no more than a 10% market share. They argued that this would give them 90% of the market to shoot for and focus them on growth.

Welch also stressed size. But Welch emphasized that it allowed GE to diversify its risks. The way to capitalize on its size was to use this ability to diversify internally to take a lot of risks. The 2001 annual report put it this way:

> We understand [the] inherent limitations [of size] -- on speed and on clarity of communications, among other things -- and we fight every day to create the quickness and spirit of a small company. But we appreciate the one huge advantage size offers: the ability to take big swings, big risks, and to live outside the technology envelope, to live in the future. Size allows us to invest hundreds of millions of dollars in an enormously ambitious program like the GE90, the world's highest-thrust jet engine, and the "H" turbine, the world 's highest-efficiency turbine generator. Size allows us to introduce at least one new product in every segment, every year, in medical diagnostics, or to spend hundreds of millions on new plastics capacity, or to continue to invest in a business during a down cycle, or to make over 100 acquisitions a year, year after year. Our size allows us to do this knowing that we don't have to be perfect, that we can take more risks, knowing that not all will succeed. That's because our size -- far from inhibiting innovation, the conventional stereotype -- actually allows us to take more and bigger swings. We don't connect with every one, but the point is, our size allows us to miss a few -- without missing a beat.

A final feature of GE is the wide range of businesses in which it operates. Although many other companies have had difficulty expanding outside their core businesses, GE had been successful for decades doing precisely that. Some observers find it difficult to believe that a single firm can understand and operate such different businesses as aircraft engines, television broadcasting, and venture capital. Others, however, suggest that the

quality of GE's management and management practices are valuable regardless of the industry to which they are applied. Apparently even this has it limits, however, as GE stumbled badly when it bought Kidder Peabody. As Welch puts it: "[I] didn't know diddly about it. I was on a roll. … I thought I was 6-foot-4 with hair. … I had two very smart board members, Walter Wriston and Lew Preston, who both said: 'Jack, this is awful.' But I bullied over them. … It wasn't worth it … to go through the headaches we made [for ourselves] for being such jerks." (Comments at NYU Stern, May 2002.)

Questions for Analysis

(a) In what ways is "number 1 or number 2" a useful goal? In what ways not?
(b) What are the advantages of GE's enormous size? Disadvantages?
(c) What are the advantages to GE of managing such a diverse set of businesses? Disadvantages? Can you think of other examples of "unrelated diversification" that have been less successful?

Notes

Charles Miller and Kenneth Goldman prepared this case under the supervision of David Backus and Luís Cabral for the purpose of class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The authors thank Ahmed Ozalp for collecting the information on market shares.

Exhibit 1. GE Segment Revenues (millions of dollars)

Segment	2001	2000
GE		
Aircraft Engines	11,389	10,779
Appliances	5,810	5,887
Industrial Products and Systems		
Industrial Systems	4,440	4,469
Lighting	2,550	2,739
Transportation Systems	2,355	2,263
GE Supply	2,302	2,159
Total Industrial Products and Systems	11,647	11,630
Materials		
Plastics	5,252	6,013
Specialty Materials	1,817	2,007
Total Materials	7,069	8,020
NBC	5,769	6,797
Power Systems	20,211	14,861
Technical Products and Services		
Medical Systems	8,409	7,275
Global exchange Services	602	640
Total Technical Products and Services	9,011	7,915
Eliminations	(2,900)	(2,101)
Total GE segment revenues	68,006	63,788
Corporate items	445	517
Earnings of GECS (excl goodwill)	6,138	5,812
Total GE revenues	74,589	70,117
GECS (GE Capital Services)		
Consumer Services	22,705	22,993
Equipment Management	8,272	7,525
Mid-Market Financing	8,695	7,043
Specialized Financing	2,930	4,105
Specialty Insurance	11,064	11,878
All Other	4,687	12,633
Total GECS	58,353	66,177
Eliminations	(7,029)	(6,441)
Consolidated Revenues	125,913	129,853

Exhibit 2
Market Shares in Selected Businesses

(a) Global market shares for aircraft engines (total served, 2000)

Company	Market Share
GE/CFM	48%
Pratt & Whitney	28%
Rolls-Royce	14%

Source: Lehman Brothers. CFM is a joint venture of GE and France's Snecma.

(b) North American market shares for appliances (2000)

Company	North Am Revenue	Market Share
Whirlpool	6,233m	29%
Electrolux	4,710m	28%
General Electric	3,754m	22%
Maytag	800m	18%
Others	$21,386m	4%

Source: Wachovia Securities.

(c) Global market shares for lighting (2000)

Company	Revenue	Market Share
Philips	4,743m	33%
Siemens/Osram	3,569m	25%
General Electric	3,000m	21%
Matsushita	NA	~10%

Source: Wachovia Securities.

(d) Global market shares for power systems (1995-2000)

Company	Share for Steam Turbines	Share for Gas Turbines
General Electric	16%	50%
Alstom Power	15%	10%
Siemens	14%	25%
Mitsubishi	9%	10%
Toshiba	8%	--

Source: Lehman Brothers.

(e) Global market shares for selected medical systems (2000)

System	GE Share	Competitors' Shares
MRI	47%	Siemens 23%, Philips 12%
X-ray	30%	Philips 25%, Siemens 19%
Computed Tomography (CT)	48%	Siemens 20%, Marconi 17%
Ultrasound	24%	HP 13%, Toshiba 12%
All Diagnostic Imaging	34%	Philips/Marconi 25%, Siemens 21%

Source: Wachovia Securities, Lehman Brothers.

(f) Global market shares for reinsurance (net reinsurance premiums, 2000)

Company	Market Share
Munich Re	22%
Swiss Re	21%
General Re	13%
General Electric (ERC)	12%
Hanover Re	7%

Source: Lehman Brothers.