

TABLE 8-10 Projected Whole Foods Market Income Statements (in millions)

	2010	2011	2012
Revenue (a)	\$9,005.8	12,584.0	17,860.0
Cost of Goods Sold	5,870.4	7,550.0	10,716.0
Gross Profit	3,135.4	5,034.0	7,144.0
Gross Profit Margin (b)	34.8%	40%	40%
SG&A Expense (c)	2,697.4	3,782.0	4,109.0
Depreciation & Amortization	275.6	290	310.0
Operating Income	438.0	1,252.0	3,035.0
Operating Margin	4.9%	9.9%	16.9%
Nonoperating Income	6.9	0	0
Nonoperating Expenses	(33.0)	0	0
Income Before Taxes	411.8	1,252.0	3,035.0
Income Taxes (d)	165.9	504.0	1,223.0
Net Income After Taxes	245.8	748.0	1,812.0
Net Income	\$245.8	748.0	1,812.0
Dividends	5.4	175.0	180.0
Retained Earnings	\$240.4	573.0	1,632.0

(a) \$60.89 million per new store + 10% increase for all stores, so in 2011 we have $\$60.89 \times 40 = \$2,435 + 9,005 = \$11,440 + 10\% = \$12,584$. In 2012 we have $\$60.89 \times 60 = 3,653 + 12,584 = \$16,237 + 10\% = \$17,860$.

(b) increases to 40% due to better inventory control; note that $5,034/12,584 = 40\%$ and $7,144/17,860 = 40\%$.

(c) same 29.9% of revenue + \$20 million per year, new ad campaign; note that $\$12,584 \times .299 + \$20 = \$3,782$.

(d) same 40.3% rate as in 2010.

Financial budgets have some limitations. First, budgetary programs can become so detailed that they are cumbersome and overly expensive. Overbudgeting or underbudgeting can cause problems. Second, financial budgets can become a substitute for objectives. A budget is a tool and not an end in itself. Third, budgets can hide inefficiencies if based solely on precedent rather than on periodic evaluation of circumstances and standards. Finally, budgets are sometimes used as instruments of tyranny that result in frustration, resentment, absenteeism, and high turnover. To minimize the effect of this last concern, managers should increase the participation of subordinates in preparing budgets.

Company Valuation

Evaluating the worth of a business is central to strategy implementation because integrative, intensive, and diversification strategies are often implemented by acquiring other firms. Other strategies, such as retrenchment and divestiture, may result in the sale of a division of an organization or of the firm itself. Thousands of transactions occur each year in which businesses are bought or sold in the USA. In all these cases, it is necessary to establish the financial worth or cash value of a business to successfully implement strategies.

All the various methods for determining a business's worth can be grouped into three main approaches: what a firm owns, what a firm earns, or what a firm will bring in the market. But it is important to realize that valuation is not an exact science. The valuation of a firm's worth is based on financial facts, but common sense and intuitive judgment must enter into the process. It is difficult to assign a monetary value to some factors—such as a loyal customer base, a history of growth, legal suits pending, dedicated employees, a favorable lease, a bad credit rating, or good patents—that may not be reflected in a firm's financial statements. Also, different valuation methods will yield different totals for a firm's worth, and no prescribed approach is best for a certain situation. Evaluating the worth of a business truly requires both qualitative and quantitative skills.

TABLE 8-11 Projected Whole Foods Market Balance Sheets (in millions)

	2010	2011	2012
Assets			
Current Assets			
Cash	\$132.0	\$1,55.3	\$3,260.3
Net Receivables	133.3	140.0	160.0
Inventories	323.5	330.0	360.0
Other Current Assets	572.7	0	0
Total Current Assets	1,161.5	2,020.3	3,580.3
Net Fixed Assets (a)	1,886.1	2,138.0	2,516.0
Other Noncurrent Assets	938.9	0	0
Total Assets	\$3,986.5	\$4,159.3	\$6,296.3
Liabilities			
Current Liabilities			
Accounts Payable	213.2	300.0	400.0
Short-Term Debt	0.4	0	0
Other Current Liabilities	534.3	0	0
Total Current Liabilities	747.9	300.0	400.0
Long-Term Debt (b)	508.3	708.0	908.0
Other Noncurrent Liabilities	357.0	0	0
Total Liabilities	1,613.2	1,008.0	1,308.0
Shareholders' Equity			
Common Stock (c)	500.0	505.0	510.0
Additional-paid-in-capital (d)	1,247.7	1,474.7	1,674.7
Retained Earnings (e)	598.6	1,171.6	2,803.6
Total Shareholders' Equity	2,373.3	3,151.3	4,988.3
Total Liabilities and SE	\$3,986.5	\$4,159.3	\$6,296.3
Shares Outstanding (in thousands) (f)	172,033	177,033	182,033

(a) $\$6.3 \text{ M per store} \times 40 \text{ stores} = 252 + 1,886 = 2,138$; $6.3 \times 60 = 378 + 2,139 = 2,516$

(b) \$200 M to be raised by debt annually

(c) add 5 M new shares annually since \$40 per share and need \$200 M to be raised by equity annually

(d) add \$200 M annually thru stock issuance

(e) $\$598.6 + \$573.0 = \$1,171.6 + 1,632.0 = \$2,803.6$

(f) stock price = \$40, \$200 M needed per year thru equity, so 5 M new shares to be issued annually; thus $172,033 + 5 \text{ M} = 177,033$

The first approach in evaluating the worth of a business is determining its net worth or stockholders' equity. Net worth represents the sum of common stock, additional paid-in capital, and retained earnings. After calculating net worth, subtract an appropriate amount for goodwill and intangibles. Whereas intangibles include copyrights, patents, and trademarks, goodwill arises only if a firm acquires another firm and pays more than the book value for that firm.

It should be noted that FASB Rule 142 requires companies to admit once a year if the premiums they paid for acquisitions, called **goodwill**, were a waste of money. Goodwill is not a good thing to have on a balance sheet. Note in Table 8-13 that J.M. Smucker's \$Goodwill to \$Total Assets is a really high 33.5 percent, indicating that a third of the company's assets are "Goodwill," which is not good.

The second approach to measuring the value of a firm grows out of the belief that the worth of any business should be based largely on the future benefits its owners may derive through net profits. A conservative rule of thumb is to establish a business's worth as five times the firm's current annual profit. A five-year average profit level could also be used. When using this approach, remember that firms normally suppress earnings in their financial statements to minimize taxes.

TABLE 8-12 Six-Month Cash Budget for the Toddler Toy Company in 2015

Cash Budget (in thousands)	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Receipts							
Collections	\$12,000	\$21,000	\$31,000	\$35,000	\$22,000	\$18,000	\$11,000
Payments							
Purchases	14,000	21,000	28,000	14,000	14,000	7,000	
Wages and Salaries	1,500	2,000	2,500	1,500	1,500	1,000	
Rent	500	500	500	500	500	500	
Other Expenses	200	300	400	200	—	100	
Taxes	—	8,000	—	—	—	—	
Payment on Machine	—	—	10,000	—	—	—	
Total Payments	<u>\$16,200</u>	<u>\$31,800</u>	<u>\$41,400</u>	<u>\$16,200</u>	<u>\$16,000</u>	<u>\$8,600</u>	
Net Cash Gain (Loss) During Month	-4,200	-10,800	-10,400	18,800	6,000	9,400	
Cash at Start of Month if No Borrowing Is Done	<u>6,000</u>	<u>1,800</u>	<u>-9,000</u>	<u>-19,400</u>	<u>-600</u>	<u>5,400</u>	
Cumulative Cash (Cash at start plus gains or minus losses)	1,800	-9,000	-19,400	-600	5,400	14,800	
Less Desired Level of Cash	<u>-5,000</u>	<u>-5,000</u>	<u>-5,000</u>	<u>-5,000</u>	<u>-5,000</u>	<u>-5,000</u>	
Total Loans Outstanding to Maintain \$5,000 Cash Balance	<u>\$3,200</u>	<u>\$14,000</u>	<u>\$24,400</u>	<u>\$5,600</u>	<u>—</u>	<u>—</u>	
Surplus Cash	—	—	—	—	400	9,800	

TABLE 8-13 Company Worth Analysis for J.M. Smucker, Microsoft Corp., and Zale Corp. (in millions, except stock price and EPS)

Input Data	J.M. Smucker	Microsoft Corp.	Zale Corp.
\$ Shareholders' Equity (SE)	5,163	66,363	178
\$ Net Income (NI)	460	17,000	-27
\$ Stock Price (SP)	80	30	7
\$ EPS	4.08	2.00	-90
# of Shares Outstanding	109	8,330	32
\$ Goodwill	3,050	13,542	100
\$ Intangibles	3,190	3,170	0
\$ Total Assets	9,115	121,271	1,171
Company Worth Analyses			
1. SE - Goodwill - Intangibles	\$977	\$49,741	\$78
2. Net Income x 5	2,300	85,000	0
3. (SP / EPS) x NI	9,019	225,000	0
4. # of Shares Out x Stock Price	8,720	251,400	224
5. Four Method Average	\$4,765	\$161,285	\$151
\$ Goodwill / \$ Total Assets	33.5%	11.1%	8.5%

The third approach is called the **price-earnings ratio method**. To use this method, divide the market price of the firm's common stock by the annual earnings per share and multiply this number by the firm's average net income for the past five years.

The fourth method can be called the **outstanding shares method**. To use this method, simply multiply the number of shares outstanding by the market price per share. If the purchase price

is more than this amount, the additional dollars are called a **premium**. The outstanding shares method may be called the “**market value**” or “**market capitalization**” or “**book value**” of the firm. The premium is a per-share dollar amount that a person or firm is willing to pay beyond the book value of the firm to control (acquire) the other company. Bristol-Myers Squibb recently offered \$31 a share to acquire Amylin Pharmaceuticals and that offer represented a 9.9 percent premium over Amylin’s closing stock price the day of the offer. WellPoint, the second-largest insurer in the USA, recently acquired Amerigroup for \$92 per share in cash, which was a whopping 43 percent premium to Amerigroup’s closing stock price of \$64.34. Amerigroup’s stock soared 38 percent to \$88.79 the day after the offer.

Table 8-13 provides the cash value analyses for three companies—J.M. Smucker, Microsoft Corp., and Zale Corp.—for fiscal year-end 2012. Notice that there is significant variation among the four methods used to determine cash value. For example, the worth of J.M. Smucker ranged from minus \$1,077 to \$9.019 billion. Obviously, if you were selling your company, you would seek the larger values, whereas if purchasing a company you would seek the lower values. In practice, substantial negotiation takes place in reaching a final compromise (or averaged) amount. Also recognize that if a firm’s net income is negative, theoretically the approaches involving that figure would result in a negative number, implying that the firm would pay you to acquire them. Of course, you obtain all of the firm’s debt and liabilities in an acquisition, so theoretically this would be possible.

Hewlett-Packard, Boston Scientific, Frontier Communications, and Republic Services (unfortunately for them) carry more goodwill on their balance sheet than their market (or book) value. This is a signal that their goodwill should be “written down,” which means “reduced and recorded as an expense on the income statement.” Nasdaq OMX Group’s \$5.1 billion in goodwill exceeds its \$3.9 billion market capitalization by a precarious 31 percent. Jack Ciesielski, publisher of Analyst’s Accounting Observer, says: “Writing down goodwill is an admission that the company screwed up when it budgeted what an acquired firm is worth.” Sometimes it is OK to pay more for a company than its book value if the firm has technology or patents you need or economies of scale you desire or even to reduce competitive pricing pressure, but, like buying a house, paying a “premium” for a company is almost always not a good thing. Acquiring at a “discount” is far better for shareholders.

Because goodwill write-down accounting rules involve projections and judgments, companies have leeway for when to write down goodwill, and by how much. Microsoft for example in 2012 wrote down (reduced) their goodwill \$6.2 billion, basically admitting that their previous acquisition of online-advertising firm aQuantive Inc. for \$6.3 billion was ill advised—now recording that amount as an expense. Analysts expect Hewlett-Packard to soon write down some (or all) of the \$6.6 billion in goodwill among the \$10.1 billion total that they recently paid for British software maker Autonomy PLC.¹⁰

If the purchase price is less than the stock price times number of shares outstanding, rather than more, that difference is called a **discount**. For example, when Clayton Doublier & Rice LLC recently acquired Emergency Medical Services (EMS) Corp. for \$2.9 billion, a 9.4 percent discount below EMS’s stock price of \$64.00.

Business evaluations are becoming routine in many situations. Businesses have many strategy-implementation reasons for determining their worth in addition to preparing to be sold or to buy other companies. Employee plans, taxes, retirement packages, mergers, acquisitions, expansion plans, banking relationships, death of a principal, divorce, partnership agreements, and IRS audits are other reasons for a periodic valuation. It is just good business to have a reasonable understanding of what a firm is worth. This knowledge protects the interests of all parties involved.

Ryan Brewer, an assistant professor of finance at Indiana University-Purdue University Columbus, recently calculated the monetary value of top college football teams. Brewer examined each program’s revenues and expenses and made cash-flow adjustments, risk assessments and growth projections for each school. Brewer’s results for 69 college programs are provided in Table 8-14. Note that Texas was the most valuable college football program in 2012, followed by Michigan. Interestingly, all of these programs are “non-profit.” As a point of reference, the NFL’s Jacksonville Jaguars sold in late 2011 for about \$760 million.

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TABLE 8-14 The Monetary Value of Various College Football Programs

Sticker Shock The value, in millions, of major-conference college-football programs, plus Notre Dame and BYU:

Rank	SCHOOL	VALUE	Rank	SCHOOL	VALUE	Rank	SCHOOL	VALUE	Rank	SCHOOL	VALUE
1	Texas	\$761.7	19	Oregon	\$264.6	37	Virginia	\$146.3	55	Mississippi St.	\$96.1
2	Michigan	\$731.9	20	Washington	\$259.9	38	Purdue	\$145.1	56	Maryland	\$96.1
3	Florida	\$599.7	21	Michigan St.	\$224.8	39	N.C. State	\$143.0	57	California	\$92.1
4	Notre Dame	\$597.4	22	Texas Tech	\$211.0	40	Indiana	\$142.7	58	Syracuse	\$91.1
5	Ohio St.	\$586.6	23	Oklahoma St.	\$209.1	41	Iowa St.	\$140.3	59	Texas Christian	\$76.1
6	Auburn	\$508.1	24	Kansas St.	\$207.1	42	Minnesota	\$139.7	60	Louisville	\$75.1
7	Georgia	\$481.8	25	Colorado	\$202.9	43	BYU	\$136.1	61	Washington St.	\$73.1
8	Alabama	\$476.0	26	Kentucky	\$202.7	44	Arizona	\$126.8	62	Baylor	\$71.1
9	LSU	\$471.7	27	Clemson	\$201.8	45	UCLA	\$125.8	63	Rutgers	\$64.1
10	Oklahoma	\$454.7	28	USC	\$197.8	46	Utah	\$119.7	64	Duke	\$62.1
11	Iowa	\$384.4	29	Georgia Tech	\$188.4	47	Oregon St.	\$118.8	65	Pittsburgh	\$59.1
12	Tennessee	\$364.6	30	Virginia Tech	\$171.5	48	Illinois	\$117.3	66	Vanderbilt	\$57.1
13	Nebraska	\$360.1	31	Arizona St.	\$164.6	49	Mississippi	\$111.7	67	Missouri	\$56.1
14	Arkansas	\$332.0	32	West Virginia	\$159.4	50	Boston College	\$110.2	68	Cincinnati	\$48.1
15	S. Carolina	\$311.9	33	Florida St.	\$159.0	51	Kansas	\$103.4	69	Temple	\$46.1
16	Penn St.	\$300.8	34	Miami (Fla.)	\$157.7	52	Connecticut	\$101.8			
17	Wisconsin	\$296.1	35	Northwestern	\$148.8	53	South Florida	\$101.2			
18	Texas A&M	\$278.5	36	Stanford	\$148.7	54	North Carolina	\$99.8			

Source: Ryan Brewer, Indiana University-Purdue University Columbus.

Note: Excludes Wake Forest; based on information at <http://online.wsj.com/article/SB10001424127887324391104578225802183417888.html>.

Deciding Whether to Go Public

Hundreds of companies in 2012 held **initial public offerings (IPOs)** to move from being private to being public. These firms took advantage of high stock market prices. For example, some recent IPOs include computer-network-security firm Palo Alto Networks Inc., search engine Kayak Software Corp., guitar maker Fender Musical Instruments, discount retailer Five Below, and pharmaceutical developer Durata Therapeutics, health-food retailer Natural Grocers by vitamin Cottage, software firm E2open, and Chuy's Holdings, a U.S.-based operator of Mexican restaurants. MGM Holdings, parent of the film studio Metro-Goldwyn-Mayer, just hired Goldman Sachs Group to develop a public stock offering for the company. MGM hopes its new "Hobbit" and "Skyfall" movies will help its pending IPO.

Groupon, the firm that offers daily deals on services, went public in November 2011 at \$20 per share or \$13 billion in market capitalization, but less than a year later Groupon stock was selling for \$6.00 per share and the company's market capitalization had dropped to less than \$5 billion. Zynga and Facebook's recent IPO's also turned sour quite quickly.

Going public means selling off a percentage of a company to others to raise capital; consequently, it dilutes the owners' control of the firm. Going public is not recommended for companies with less than \$10 million in sales because the initial costs can be too high for the firm to generate sufficient cash flow to make going public worthwhile. One dollar in four is the average total cost paid to lawyers, accountants, and underwriters when an initial stock issuance is under \$1 million; \$1 in \$20 will go to cover these costs for issuances over \$20 million.

In addition to initial costs involved with a stock offering, there are costs and obligations associated with reporting and management in a publicly held firm. For firms with more than \$10 million in sales, going public can provide major advantages. It can allow the firm to raise capital to develop new products, build plants, expand, grow, and market products and services more effectively.

Research and Development (R&D) Issues

In terms of "Innovation," *Fortune* recently ranked the following companies as best in the world. Note that Apple retained its number-1 ranking from the prior year.

Rank	Company
1	Apple
2	Sistema
3	GDF Suez
4	Limited Brands
5	Qualcomm
6*	Enterprise Products Partners
6*	Koc Holding
8	Amazon.com
9	Sealed Air
10	Nike

Source: Based on http://money.cnn.com/magazines/fortune/most-admired/2012/best_worst/best1.html.

Research and development (R&D) personnel can play an integral part in strategy implementation. These individuals are generally charged with developing new products and improving old products in a way that will allow effective strategy implementation. R&D employees and managers perform tasks that include transferring complex technology, adjusting processes to local raw materials, adapting processes to local markets, and altering products to particular tastes and specifications. Strategies such as product development, market penetration, and related diversification require that new products be successfully developed and that old products be significantly improved.

Technological improvements that affect consumer and industrial products and services shorten product life cycles. Companies in virtually every industry are relying on the development of new products and services to fuel profitability and growth.¹¹ Surveys suggest that the most successful organizations use an R&D strategy that ties external opportunities to internal strengths and is linked with objectives. Well-formulated R&D policies match market opportunities with internal capabilities. R&D policies can enhance strategy implementation efforts to:

1. Emphasize product or process improvements.
2. Stress basic or applied research.
3. Be leaders or followers in R&D.
4. Develop robotics or manual-type processes.
5. Spend a high, average, or low amount of money on R&D.
6. Perform R&D within the firm or to contract R&D to outside firms.
7. Use university researchers or private-sector researchers.

R&D policy among rival firms often varies dramatically. For example, Pfizer spends only about \$5 billion annually on R&D even though the firm has about \$70 billion in annual revenues, whereas rival Merck spends about \$10 billion annually on R&D with annual revenue of about \$50 billion. Underlying this difference in strategy between the two pharmaceutical giants is a philosophical disagreement over the merits of heavy investment to discover new drugs versus waiting for others to spend the money and discover and then follow up with similar products. Pfizer and Merck "are going in different directions," said Les Funtleyder, portfolio manager of the Miller Tabak Health Care Transformation mutual fund.

There must be effective interactions between R&D departments and other functional departments in implementing different types of generic business strategies. Conflicts between marketing, finance and accounting, R&D, and information systems departments can be minimized with clear policies and objectives. Table 8-15 gives some examples of R&D activities that could be required for successful implementation of various strategies. Many U.S. utility, energy, and automotive companies are employing their R&D departments to determine how the firm can effectively reduce its gas emissions.

TABLE 8-15 Research and Development Involvement in Selected Strategy-Implementation Situations

Type of Organization	Strategy Being Implemented	R&D Activity
Pharmaceutical company	Product development	Test the effects of a new drug on different subgroups.
Boat manufacturer	Related diversification	Test the performance of various keel designs under various conditions.
Plastic container manufacturer	Market penetration	Develop a biodegradable container.
Electronics company	Market development	Develop a telecommunications system in a foreign country.

Many firms wrestle with the decision to acquire R&D expertise from external firms or to develop R&D expertise internally. The following guidelines can be used to help make this decision:

1. If the rate of technical progress is slow, the rate of market growth is moderate, and there are significant barriers to possible new entrants, then in-house R&D is the preferred solution. The reason is that R&D, if successful, will result in a temporary product or process monopoly that the company can exploit.
2. If technology is changing rapidly and the market is growing slowly, then a major effort in R&D may be risky because it may lead to the development of an ultimately obsolete technology or one for which there is no market.
3. If technology is changing slowly but the market is growing quickly, there generally is not enough time for in-house development. The prescribed approach is to obtain R&D expertise on an exclusive or nonexclusive basis from an outside firm.
4. If both technical progress and market growth are fast, R&D expertise should be obtained through acquisition of a well-established firm in the industry.¹²

There are at least three major R&D approaches for implementing strategies. The first strategy is to be the first firm to market new technological products. This is a glamorous and exciting strategy but also a dangerous one. Even Apple found this to be dangerous as per Samsung. Firms such as 3M and General Electric have been successful with this approach, but many other pioneering firms have fallen, with rival firms seizing the initiative.

A second R&D approach is to be an innovative imitator of successful products, thus minimizing the risks and costs of start-up. This approach entails allowing a pioneer firm to develop the first version of the new product and to demonstrate that a market exists. Then, laggard firms develop a similar product. This strategy requires excellent R&D and marketing personnel.

A third R&D strategy is to be a low-cost producer by mass-producing products similar to but less expensive than products recently introduced. As a new product is accepted by customers, price becomes increasingly important in the buying decision. Also, mass marketing replaces personal selling as the dominant selling strategy. This R&D strategy requires substantial investment in plant and equipment but fewer expenditures in R&D than the two approaches described previously. Dell and Lenovo have utilized this third approach to gain competitive advantage.

R&D activities among U.S. firms need to be more closely aligned to business objectives. There needs to be expanded communication between R&D managers and strategists. Corporations are experimenting with various methods to achieve this improved communication climate, including different roles and reporting arrangements for managers and new methods to reduce the time it takes research ideas to become reality.

Perhaps the most current trend in R&D management has been lifting the veil of secrecy whereby firms, even major competitors, are joining forces to develop new products. Collaboration is on the rise as a result of new competitive pressures, rising research costs, increasing regulatory issues, and accelerated product development schedules. Companies not only are working more closely with each other on R&D, but they are also turning to consortia at universities for their R&D needs. More than 600 research consortia are now in operation in the USA.

Management Information Systems (MIS) Issues

Firms that gather, assimilate, and evaluate external and internal information most effectively are gaining competitive advantages over other firms. Having an effective **management information system (MIS)** may be the most important factor in differentiating successful from unsuccessful firms. The process of strategic management is facilitated immensely in firms that have an effective information system.

Information collection, retrieval, and storage can be used to create competitive advantages in ways such as cross-selling to customers, monitoring suppliers, keeping managers and employees informed, coordinating activities among divisions, and managing funds. Like inventory and human resources, information is now recognized as a valuable organizational asset that can be controlled and managed. Firms that implement strategies using the best information will reap competitive advantages in the twenty-first century.

A good information system can allow a firm to reduce costs. For example, online orders from salespersons to production facilities can shorten materials ordering time and reduce inventory costs. Direct communications between suppliers, manufacturers, marketers, and customers can link together elements of the value chain as though they were one organization. Improved quality and service often result from an improved information system.

Firms must increasingly be concerned about computer hackers and take specific measures to secure and safeguard corporate communications, files, orders, and business conducted over the Internet. Thousands of companies today are plagued by computer hackers who include disgruntled employees, competitors, bored teens, sociopaths, thieves, spies, and hired agents. Computer vulnerability is a giant, expensive headache.

Headquartered in Short Hills, New Jersey, Dun & Bradstreet is an example company that has an excellent information system. Every D&B customer and client in the world has a separate nine-digit number. The database of more than 200 million businesses worldwide contains of information associated with each number. The D-U-N-S # has become so widely used that it is like a business Social Security number. D&B reaps great competitive advantages from its information system.

In many firms, information technology is doing away with the workplace and allowing employees to work at home or anywhere, anytime. The mobile concept of work allows employees to work the traditional 9-to-5 workday across any of the 24 time zones around the globe. Affordable desktop videoconferencing software allows employees to "beam in" whenever needed. Any manager or employee who travels a lot away from the office is a good candidate for working at home rather than in an office provided by the firm. Salespersons or consultants are good examples, but any person whose job largely involves talking to others or handling information could easily operate at home with the proper MIS.¹³

Business Analytics

Business analytics is a MIS technique that involves using software to mine huge volumes of data to help executives make decisions. Sometimes called predictive analytics, machine learning, or data mining, this software enables a researcher to assess and use the aggregate experience of an organization, a priceless strategic asset for a firm. The history of a firm's interaction with its customers, suppliers, distributors, employees, rival firms, and more can all be tapped with **data mining** to generate predictive models. Business analytics is similar to the actuarial methods used by insurance companies to rate customers by the chance of positive or negative outcomes. Every business is basically a risk management endeavor! Therefore, like insurance companies, all businesses can benefit from measuring, tracking, and computing the risk associated with hundreds of strategic and tactical decisions made everyday. Business analytics enables a company to benefit from measuring and managing risk.

As more and more products become commoditized (so similar as to be indistinguishable), competitive advantage more and more hinges on improvements to business processes. Business analytics can provide a firm with proprietary business intelligence regarding, for example, which segment(s) of customers choose your firm versus those who defer, delay, or defect to a competitor and why. Business analytics can reveal where competitors are weak so that marketing and sales activities can be directly targeted to take advantage of resultant opportunities (knowledge).

In addition to marketing retention, the most valuable trait of a company is its phone call. A key perspective, the business is based on hundreds of thousands. The market is making a decision, and it becomes a thousand-dollar business. IBM's business analytics to the industry among other business capability software. Department

Special

Regardless of your strategy, the written plan for marketing, the firm to rival well conceived because you and worth the sales, so fellow reasonably. overly optimistic accounting, gain and sustain the free stock EPS-EBIT a

Conclusion

Successful divisional management implementing with new or strategy-implement have to translate strategies. International leadership and accounting Chapter 7, large

In addition to understanding consumer behavior better, which yields more effective and efficient marketing, business analytics also is being used to slash expenses by, for example, withholding retention offers from customers who are going to stay with the firm anyway, or managing fraudulent transactions involving invoices, credit card purchases, tax returns insurance claims, mobile phone calls, online ad clicks, and more.

A key distinguishing feature of business analytics is that it is predictive rather than retrospective, in that it enables a firm to learn from experience and to make current and future decisions based on prior information. Deriving robust predictive models from data mining to support hundreds of commonly occurring business decisions is the essence of learning from experience. The mathematical models associated with business analytics can dramatically enhance decision making at all organizational levels and all stages of strategic management. In a sense, art becomes science with business analytics resulting from the mathematical generalization of thousands, millions, or even billions of prior data points to discover patterns of behavior for optimizing the deployment of resources.

IBM's former CEO Samuel Palmisano announced that IBM is moving aggressively into business analytics, trying to overtake Oracle's market share lead.¹⁴ IBM's annual business analytics revenues of about \$40 billion are growing about 15 percent every quarter compared to the industry growing about 15 percent annually. IBM's acquisition of SPSS for \$1.2 billion, among other recent acquisitions, launched the firm heavily into the business analytics consulting business. Microsoft currently has a software program called PowerPivot that offers data-mining capability in a spreadsheet-like way, but this is not nearly as powerful as business analytics software. IBM recently completed a business analytics project for the New York City Fire Department whereby buildings in the city were assessed for risk.

Special Note to Students

Regardless of your business major, be sure to capitalize on that special knowledge in delivering your strategic management case analysis. Whenever the opportunity arises in your oral or written project, reveal how your firm can gain and sustain competitive advantage using your marketing, finance and accounting, or MIS recommendations. Continuously compare your firm to rivals and draw insights and conclusions so that your recommendations come across as well conceived. Never shy away from the EPS/EBIT or projected financial statement analyses because your audience must be convinced that what you recommend is financially feasible and worth the dollars to be spent. Spend sufficient time on the nuts-and-bolts of those analyses, so fellow students (and your professor) will be assured that you did them correctly and reasonably. Too often, when students rush at the end, it means their financial statements are overly optimistic or incorrectly developed—so avoid that issue. The marketing, finance and accounting, and MIS aspects of your recommended strategies must ultimately work together to gain and sustain competitive advantage for the firm—so point that out frequently. By the way, the free student excel template at www.strategyclub.com can help immensely in performing EPS-EBIT analysis.

Conclusion

Successful strategy implementation depends on cooperation among all functional and divisional managers in an organization. Marketing departments are commonly charged with implementing strategies that require significant increases in sales revenues in new areas and with new or improved products. Finance and accounting managers must devise effective strategy-implementation approaches at low cost and minimum risk to that firm. R&D managers have to transfer complex technologies or develop new technologies to successfully implement strategies. Information systems managers are being called upon more and more to provide leadership and training for all individuals in the firm. The nature and role of marketing, finance and accounting, R&D, and MIS activities, coupled with the management activities described in Chapter 7, largely determine organizational success.