The environment is the source of many discussions in America’s board rooms. Most of the conversations probably center around cost containment, dealing with new regulations or reacting to unexpected problems. Some conversations may even revolve around how to “cash in” on the public’s concern for the environment. All of these discussions are normal, but also are increasingly becoming outdated. Companies that see the environment as a cost rather than a chance to gain a competitive advantage are perhaps missing the best opportunity of the 1990s. In the 1980s, quality was the vehicle that delivered greater profits and market share, but many businesses were late to recognize the fact that quality is a profit issue, not a cost issue. It was only the success of the Japanese and consumer pressure that created the quality revolution. Today, it is the environment that holds enormous potential for business, but until recently business was in a reactive not proactive mode. In order to be able to use the environment as a competitive weapon, business needs to begin where it should always begin, its customers.

### Consumer commitment

It is widely known that the degree to which management understands their customers is critical to their success. Japanese and German penetration into the American automobile market could not have been so successful if American manufacturers had not misunderstood their consumers’ need for fuel economy and greater quality. While only 49 per cent of the public and corporate executives believe that causing damage to the environment is a serious crime, but only 49 per cent of them felt they should be held personally responsible for such an offense (Business Executives, 1992). Their customers see this accountability differently. While about 83 per cent of the public and corporate executives believe environmental damage to the environment is a serious crime, each group differs dramatically about accountability. While only 49 per cent of corporate

D. Keith Denton
Department of Management, Southwest Missouri State University, Springfield, Missouri, USA

The environment is the source of many discussions in America’s board rooms. Most of the conversations probably center around cost containment, dealing with new regulations or reacting to unexpected problems. Some conversations may even revolve around how to “cash in” on the public’s concern for the environment. All of these discussions are normal, but also are increasingly becoming outdated. Companies that see the environment as a cost rather than a chance to gain a competitive advantage are perhaps missing the best opportunity of the 1990s. In the 1980s, quality was the vehicle that delivered greater profits and market share, but many businesses were late to recognize the fact that quality is a profit issue, not a cost issue. It was only the success of the Japanese and consumer pressure that created the quality revolution. Today, it is the environment that holds enormous potential for business, but until recently business was in a reactive not proactive mode. In order to be able to use the environment as a competitive weapon, business needs to begin where it should always begin, its customers.

Consumer commitment

It is widely known that the degree to which management understands their customers is critical to their success. Japanese and German penetration into the American automobile market could not have been so successful if American manufacturers had not misunderstood their consumers’ need for fuel economy and greater quality. While only 49 per cent of the public and corporate executives believe that causing damage to the environment is a serious crime, but only 49 per cent of them felt they should be held personally responsible for such an offense (Business Executives, 1992). Their customers see this accountability differently. While about 83 per cent of the public and corporate executives believe environmental damage to the environment is a serious crime, each group differs dramatically about accountability. While only 49 per cent of corporate

The environment is the source of many discussions in America’s board rooms. Most of the conversations probably center around cost containment, dealing with new regulations or reacting to unexpected problems. Some conversations may even revolve around how to “cash in” on the public’s concern for the environment. All of these discussions are normal, but also are increasingly becoming outdated. Companies that see the environment as a cost rather than a chance to gain a competitive advantage are perhaps missing the best opportunity of the 1990s. In the 1980s, quality was the vehicle that delivered greater profits and market share, but many businesses were late to recognize the fact that quality is a profit issue, not a cost issue. It was only the success of the Japanese and consumer pressure that created the quality revolution. Today, it is the environment that holds enormous potential for business, but until recently business was in a reactive not proactive mode. In order to be able to use the environment as a competitive weapon, business needs to begin where it should always begin, its customers.

Consumer commitment

It is widely known that the degree to which management understands their customers is critical to their success. Japanese and German penetration into the American automobile market could not have been so successful if American manufacturers had not misunderstood their consumers’ need for fuel economy and greater quality. While only 49 per cent of the public and corporate executives believe that causing damage to the environment is a serious crime, but only 49 per cent of them felt they should be held personally responsible for such an offense (Business Executives, 1992). Their customers see this accountability differently. While about 83 per cent of the public and corporate executives believe environmental damage to the environment is a serious crime, each group differs dramatically about accountability. While only 49 per cent of corporate
executives said they should be held personally accountable, 75 per cent of customers felt executives should be held personally responsible (Business Executives, 1992).

**Making money**

It should be clear to anyone that consumers have mandated greater environmental responsibility. Business is recognizing it will be a major challenge. Many of those businesses that recognize environmental issues will be a challenge to doing business believe the challenge will be to stay in business under the weight of more environmental regulation. It is a legitimate concern. The EPA, for example, estimates that by the year 2000 we will spend $160 billion or nearly 3 per cent of the nation’s GNP on pollution control (Thomas, 1992).

Figures like this often seem to support many business leaders who worry about environmental costs. It is unfortunate that too many businesses assume the environment is a cost—just like they once assumed quality was a cost. The environment, like quality, may entail some short-term costs, but in the long term factoring in environmental issues is not a potential cost, it is a potential profit. For instance, the goal of the 3M corporation is to lower air and water emissions by 90 per cent and to reduce its solid waste by 50 per cent from their 1990 level. If successful, the company’s chairman estimates 3M will cut the inflation adjusted unit cost of most products by 10 per cent (Smith, 1992).

While 3M’s pollution prevention savings are still subject to conjecture, profit potential from good environmental decision making is a fact. Several of the hundreds of cases where good environmental decision making produced profits are slowly coming to light and these potential profits are in almost all areas of business.

**Products and packaging**

Consider the case of Melitta, Inc. that introduced a line of unbleached coffee filters in their US markets in July 1985. After just ten months unbleached filters accounted for 15 per cent to 20 per cent of Melitta’s consumer sales in the US and as much as 50 per cent in some west coast markets (Kashmanian, 1991).

Proctor and Gamble packages a fabric softener in a 21.5 ounce milk carton type of container. The fabric softener is intended to be mixed with water. The fabric softener previously used a 64-ounce rigid plastic bottle. These containers say “Better for the environmentless packaging to throw away,” and it does contain 75 per cent less material and costs approximately 10 per cent less than the company’s regular size and formulation of fabric softener. The product’s test marketing was so successful (e.g. accounting for 20 per cent of its sales test market) that as of October 1990 it became available nationwide (Kashmanian, 1991).

Jim Liggett introduced a new shampoo bar in the US market. The product is made entirely from natural oil and is one of the few shampoos sold without a rigid container. In two years of operation its sales have increased by more than 280 per cent (Kashmanian, 1991).

**Reusable products**

America, long noted by many as a “throw away” society, is starting to see some fundamental changes occurring. Schroeder Milk Company serves a regional market around Minneapolis/St. Paul. They offer their milk customers returnable/refillable heavy-duty containers which can be reused 50 to 150 times. The wholesale price of milk in these containers is 10 to 14 cents less than milk in non-refundable containers, but there is a 40 to 50 cent deposit per jug. In the two years since its introduction, the price of milk has not changed, but milk shipped in these reusable containers has doubled (Kashmanian, 1991).

Cloth diapers are another environmental profit success story. US births between 1988 and 1989 increased only 2 per cent, but the demand for cloth diapers, as measured by the number of customers, increased by 56 per cent. In reality, there is some dispute over the relative benefit of cloth diapers versus disposable diapers. However, it is the customer that makes the difference and they cite a concern for reducing solid waste as an important reason for selecting cloth diapers (Kashmanian, 1991).

Speaking of cotton, Treekeepers makes 100 per cent cotton, reusable canvas shopping bags sold through grocery store chains as an alternative to paper and plastic grocery bags. When introduced in 1989 in California, consumers showed remarkable acceptance. In one year shipments grew dramatically from 500 units in January of 1990 to 10,000 units per month and sales of $50,000 per month in March and April of 1990.

Reusable markets also extend to books. In fact, there is a growing market for reused books. Half Priced Books, the tenth largest used-book store chain, regularly advertises “Books should fill our minds, not our land.” In two years, revenues from the 33 store chain
New rules for the business game

The rules for being successful are not continuously being rewritten and that is true for the 1990s. In the last ten years business priorities have had to shift due to changing consumer attitudes. One example of how those rules have changed comes from Toro Company. The company first introduced a grass mulching mower in the late 1970s, but then had to withdraw from the market in the early 1980s due to insufficient customer demand, but things change.

In the fall of 1989, Toro introduced an improved grass mulching mower for their 1990 season. In its first year on the market, their grass mulching mower accounted for approximately one-quarter of Toro's lawn mower sales. Based on initial spring stocking sales, the grass mulching model was expected to account for well over one-half of 1991 lawn mower sales (Kashmanian, 1991). In hindsight it makes sense; with diminishing landfill space, it becomes increasingly difficult for consumers to get rid of yard waste. Mulching mowers make sense. Like so many other environmentally friendly products, it also makes dollars and cents.

While personal needs are also important to consumers it would be a mistake to think that consumers make buying decisions on strictly their own personal needs. Often consumers buy products based as much on the company’s reputation as anything else. For instance, the Body Shop International began business in 1988. They sell naturally-based skin and hair care products which are advertised as being developed in an environmentally and socially responsible manner. Their cosmetics are not tested on animals and the containers can be recycled. (Most other countries allow refilling of containers, unlike the US where refilling is prohibited by the FDA regulations.)

The Body Shop also points out to prospective customers that its products are biodegradable. So what are the results? The company entered the US market in late 1987 and by May 1988 there were eight shops, all selling at higher than forecast levels. As of February 1990, another 27 shops were opened (Kashmanian, 1991).

Environmental operational strategy

As noted at the beginning of this paper, it is a serious mistake to assume environmental concerns are a cost that must be borne in order to compete. Enviro-Management is simply a more effective operational strategy – a better way of managing.

We no longer live in a world of abundant resources or unlimited space. In order to compete, successful management must turn more raw materials into more finished products and services with less waste or non-value added material. Zero waste should be the goal of anyone looking for an advantage over their competition. From a business point of view, waste is an overhead item we can no longer afford.

From a competitive standpoint, if you lower your overhead below that of your competitor you have gained a significant strategic advantage. Currently, the US Office of Technological Assessment (OTA) thinks that we would cut industrial waste in the US by 75 per cent if we would only use advanced technologies, but it takes long-term commitment. A UN agency also reports that industrial countries could recycle more than 50 per cent of their paper, glass, plastics and metals if they had the proper infrastructure (Smith, 1992, p. 70).

Even modest environmental initiatives like recycling paper products can pay big dividends. The Upjohn Company reported that in 1990 they recycled 910 tons of waste paper, carton board, loose corrugated and corrugated bales. Not only did the paper recycling effort help the community by saving an estimated 2,992 cubic yards of landfill space, prevented 54,413 pounds of air pollution and saved 15,420 trees, but it also helped the company’s bottom line. Because of the recycling effort they were also able to save 3,809,033 kilowatt-hours of electricity and 6,348,388 gallons of water (Upjohn, 1991, p. 11).

Often environmental operational strategies simply involve investing in new equipment and technologies rather than using obsolete ones. Studies have shown that the newest lighting fixtures, air conditioners, furnaces and refrigeration units are 50 per cent to several times more efficient than older models. The International Energy Agency in Paris estimates that industrial countries could cut energy demand by 20 per cent by the year 2000 (Smith, 1992, p. 70). Again, Upjohn saved $123,000 on its electric bill by simply replacing light fixtures and bulbs with more efficient alternatives like mirror-like reflectors that increase reflectivity by 94 per cent and reduce the number of bulbs required to light a room (Upjohn, 1991, p. 11).

Environmental issues, like quality issues, are integrated decisions. You cannot reduce your environmental nor quality overhead if you do not manage for the long term. Rather than short-term thinking, think of the entire
life cycle of a product. One way may be easier to recycle, another requires more energy to manufacture and transport. Tracking a product through its entire life cycle is essential to making profits. It means updating technique and improving employee involvement.

**Employee involvement**

Both pollution prevention and good quality control may be steered by management, but they are driven (or not) by employee involvement. Greater employee involvement was recognized as one of the key ingredients noted by a 25 member President’s Commission on Environmental Quality (PCEQ). Under this program 11 major corporations are undertaking a voluntary demonstration project at 12 facilities to test the integration of Total Quality Management (TQM) and pollution prevention (President’s Commission). The purpose of PCEQ is to use quality improvement methods to eliminate inefficiencies that make waste resources and cause pollution. The project is to cut emissions and save money at the same time.

These companies that currently are attempting to gauge the application of TQM principles to the environment are AT&T, Network Systems, US Generating, Chevron, Dow Chemical, Merck, 3M, and Proctor and Gamble. The hope is to create a “blueprint” to pollution prevention by identifying processes, measuring techniques, and creating incentives to create successful programs.

**Responding to foreign competition**

These companies recognize that it is a mistake to think that environmental issues are American issues. Often, environmental sentiment is stronger overseas than it is in the US with its abundant resources and land. Sometimes having too much makes you less competitive. Japan was a fertile ground in which to sow the quality seeds because they have very few natural resources. Their lack of ample space, land, and raw materials made them more receptive to dollar reducing and quality increasing concepts like Total Quality Management (TQM) and Just-In-Time (JIT). These techniques emphasize the need to be frugal and make the best possible use of all of your resources. The focus is on process improvement and employee involvement. As a result, they and others less fortunate than us in terms of natural resources, were able to enhance their quality and lower costs.

It is the opinion of many that what happened in the area of quality can easily happen with the environment. The ideal quality system would be to take 100 per cent raw materials and to convert them into 100 finished goods with no waste and no inefficiencies. This same definition would be a good one for an environmental system as well. Improving operational and managerial efficiencies not only improves the quality of the product and service, but also improves its environmental compatibility. But, America does not have to be behind this competitive curve. We do not have to wait for foreign companies to grasp the environmental initiative.

In 1989, ARCO began selling a “reformulated” gasoline in Southern California. This new gasoline can be used by older cars that run on leaded gasoline. ARCO says the gasoline can reduce air pollution in Southern California alone by 20 per cent. This is because Olefin and other chemicals that react to sunlight to form smog have been lowered by onethird. Likewise, Benzene has been reduced by 50 per cent and sulfur has been reduced by 80 per cent in this new gasoline. ARCO’s market share for older cars increased from 33 per cent to 35 per cent in the first seven months the new gasoline was available.

Earth’s Best is another company trying to minimize the mark it leaves on the earth while trying to make a profit. They introduced strained baby foods (in glass jars), cereals and juices that are organically grown without synthetic pesticides or preservatives. Even though the company’s products are priced two to three times higher than conventional brands, sales have jumped from $1.2 million in 1988 to $5 million in 1989 and are expected to continue to rise.

Surely most businesses today would recognize the potential of environmentally friendly products, especially when their customers are concerned about their families. Despite this recognition by many, most managers still fail to fully explore the enormous power of integrating environmentalism into their corporate decision making.

**Conclusion**

Where some see problems others see opportunities. One such individual is Ben Cohen of Ben and Jerry’s Ice Cream. He has launched a new business focusing on concern for the Brazilian rain forest. One goal of the new company is to increase the demand for harvested rain forest products—not its lumber. They are trying to create a demand for forest products rather than slash and burn. At last report they were selling as much of a new ice cream with Brazilian nuts as they could make. Expect environmental opportunities to
There is a tremendous potential for profit where products and the companies that make them are seen as environmentally friendly. It simply makes good business sense to be environmentally friendly. Cutting pollution saves the company money. Their reputation is enhanced, materials are saved, and resources are maximized. Customers, increasingly, demand better environmental accountability, but that is not the main reason to turn green. Cleaner production actually saves money! One goal of 3M Corporation is to lower air and water emissions by 90 per cent and solid waste by 50 per cent from 1990 levels. If successful, the company chairman estimates 3M will cut the inflation-adjusted unit cost of most products by 10 per cent. Monsanto, DuPont, AT&T and 3M plan to move toward a closed-loop production that emits no discharges (Smith, 1992, p. 74). They do not do this for ethical reasons nor marketing reasons. It is simple. They recognize anything that maximizes all their resources, saves money, and boosts competitiveness and profits. The “green” in environmental green is the kind you find on the bottom line.

References


President’s Commission on Environmental Quality, Briefing paper, Washington DC.


