

### CASE 1-1

#### Preteen Market—The Right Place to Be In for Cell Phone Providers?

Do parents of preteens envision a need for equipping their children with cell phones? This seems to be the million-dollar question facing cell phone makers like Firefly who view the preteen market as offering more growth opportunities than the senior market. The preteen market is unique in that the ultimate customer, the child, does not make the purchase decision. On one side of this indirect target market are parents with hectic or variable schedules and those who are more harried or worried about their children's safety. On the other side are parents who are skeptical about the misuse of cell phones by the kids themselves or others and those who consider a kid cell phone as an unnecessary investment especially considering the fact that kids are usually under some supervision or the other, not to mention their tendency to lose personal belongings.

Cell phone makers are following the trend set by other industries such as food companies and retailers in targeting the preteen market. Firefly launched its phones in February 2005 priced at \$199 offering 12 months or 1,200 minutes of phone service—whichever

comes first. The Firefly phone has a number of safety features that make it simpler to use than a conventional phone but harder to abuse. It does not have a numerical keypad. Instead, parents can program up to 20 phone numbers into the device which cannot be changed without a password. Parents can also program the phone in such a way that it only accepts calls from certain numbers.

Firefly is not the only wireless carrier targeting the preteen market. Some providers offer regular cell phones at a steep discount for family plans. Whereify, a preteen phone specialist, is offering a kid phone that comes with a global positioning system locator—so parents can better track their offspring. Mattel Inc. is launching a phone with a Barbie theme.

While equipping 8 to 12 year olds with cell phones makes it easier for parents and children to get a hold of each other and coordinate activities, parents have other issues to grapple with. Many schools do not allow students to bring cell phones to classrooms. According to one University of Chicago child psychiatrist, most 8 to 12 year olds do not need a cell phone. So the challenge for Firefly and their competitors is "At what age do kids really need a phone?" and "Is the preteen market really worth going after?"

### Questions for Discussion

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1. Do you think preteens offer good market potential for cell phone companies?
2. While designing products for this market, what are the issues faced by the service providers?

Source: Adapted with permission from Mike Hughlett, "Target: Teens—Cell Phone Company Going After the Preteen Market," *Chicago Tribune*, April 12, 2005.

### CASE 1-2

#### Best Buy on a Segmentation Spree

With \$24.5 billion in 2005 sales, Best Buy Co. is the nation's largest seller of consumer electronics. Its spacious store and large inventory has helped it to increase market share, even as its rivals such as Circuit City Stores Inc. and Sears, Roebuck & Co., have struggled. In fiscal 2004 that ended in February, Best Buy reported net income of \$570 million. Though up from \$99 million during the 2003 fiscal period, it was still below the \$705 million it earned in fiscal 2002.

Best Buy estimates that nearly 20 percent of its 500 million visitors each year are undesirable and wants to get rid of these customers. Behind this

approach is Best Buy's chief executive officer, Brad Anderson. While most chains use their marketing budgets primarily to maximize customer traffic in the view that more visitors will lift revenue and profit, Best Buy uses it to shun its unwanted customers. This would mean dumping nearly 100 million of their unprofitable customers. A variation of this approach is being used in the financial-services industry, wherein attention is lavished on the best customers and the unprofitable customers are penalized with fees for using ATMs or tellers or for obtaining bank records.

From Best Buy's 1.5 million daily customers, Mr. Anderson wants to separate the "angels" from the "devils." Angels are customers who boost profits by

snapping up high-definition televisions, portable electronics, and newly released DVDs without waiting for markdowns or rebates. The devils are Best Buy's worst customers. They buy products, apply for rebates, return the purchases, and then buy them back at returned-merchandise discounts. They load up on "loss leaders," then flip the goods at a profit on eBay, slap down rock-bottom price quotes from websites and demand that Best Buy make good on its lowest-price pledge. At dozens of websites like fatwallet.com, slick-deals.net, and techbargains.com, the devil customers trade electronic coupons and tips from former clerks and insiders, hoping to gain extra advantages against the stores.

Best Buy has rolled out its angel-devil strategy in about 100 of its 670 stores. It is examining sales records and demographic data and devouring databases to identify good and bad customers. To lure the high-spenders, it is stocking more merchandise and more appealing service options. To keep the undesirables away, the company is cutting back on promotions and sales tactics that tend to draw them. However, the risk attached to such an exercise is significant. The pilot stores have proved more costly to operate and since different pilot stores target different types of customers, they threaten the company's economies of scale.

After a series of analyses, Best Buy concluded that most of its business came from five distinct customer groups: upper-income men, also referred internally as "Barrys"—who tend to be enthusiasts of action movies and cameras, "Jills"—who are suburban mothers; busy but usually willing to talk about helping their families, small-business owners, "Buzzes"—technology enthusiasts, also known as early adopters and interested in buying and showing off the latest gadgets. Mr. Anderson decided that each store should study the demographics of the local market and realign themselves by stocking merchandise accordingly. Armed with this information, Best Buy began working on ways to avoid unprofitable customers. They just could not bar them from entering their stores. But in summer 2004, they took steps to put an end to one of the biggest problems. They enforced a restocking fee of 15 percent of the purchase price on returned merchandise. To discourage

customers who return items with the intention of repurchasing them at an "open box" discount, they are experimenting with reselling them over the Internet, so that the goods do not reappear in the stores where they were originally purchased. In July 2004, they cut ties with fatwallet.com, an online affiliate that collected referral fees for delivering customers to Best Buy's website, for revealing information about Best Buy's planned Thanksgiving Weekend sale.

Training of store clerks plays a vital role in identifying desirable customers by concentrating on their shopping preferences and behavior. Staffers use quick interviews to identify profitable customers. For instance, if a customer says his family has a regular "movie night," he is a prime candidate for home-theater equipment. Likewise, shoppers with large families are shown larger appliances and time-saving products. The company attempts to entice the Barrys and Jills by providing services like a "personal shopper," to locate unusual items, alert them on preferred items, and coordinate service calls.

Best Buy's Westminster, California, store is one of 100 using this technique. It targets upper-income men with a wide range of pricey home-theater systems and small-business owners with network servers and office PC solutions. During DVD releases, the store clerks identify promising customers and guide them into a back room that displays \$12,000 high-definition home-theater systems. The room has easy chairs, a leather couch, and a basket of popcorn to simulate a theater atmosphere. At stores popular with Buzzes, Best Buy is setting up video game sections furnished with leather chairs and players hooked to giant plasma-screen televisions. Mr. Anderson says early results indicate pilot stores performed far better than conventional stores, following which the company began converting another 70 stores.

Best Buy intends to customize the rest of its stores over the next three years. With customization of stores, stock maintenance becomes crucial as it could topple the sales and customer goodwill. Periodic design changes and customizations cause the costs to go up, but Mr. Anderson says that as stores share the successful ideas for acquiring customers, the average cost per store should fall.

## Questions for Discussion

1. What benefits can Best Buy hope to gain from its customer segmentation tactics?
2. Do you think Best Buy is making adequate use of marketing intelligence practices for its business decisions?

Source: Adapted with permission from Gary McWilliams, "Analyzing Customers, Best Buy Decides Not All Are Welcome," *The Wall Street Journal*, November 8, 2004, p. A.1.

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## CASE 1-3

### Ethical Dilemmas in Marketing Research<sup>1</sup>

The following scenarios present a set of ethical dilemmas that might arise in marketing research. Your assignment is to decide what action to take in each instance. You should be prepared to justify your decision. Bear in mind that there are no uniquely right answers: Reasonable people may choose different courses of action.

1. You are the market research director of a pharmaceutical company, and the executive director suggests to you that company interviewers telephone physicians under the name of a fictitious market research agency. The purpose of the survey is to help assess the perceived quality of the company's products, and it is felt that the suggested procedure will result in more objective responses.

#### What action would you take?

2. You are employed by a marketing research firm and have conducted an attitude study for a client. Your findings indicate that the product's marketing efforts are not effective. This finding is badly received by the client's product management team. They request that you omit that data from your formal report, which you know will be widely distributed, on the grounds that the oral presentation was adequate for their needs.

#### What do you do?

3. You are a study director for a research company undertaking a project for a regular client of your company. A study you are working on is about to go into the field when the questionnaire you sent to the client for final approval comes back drastically modified. The client has rewritten it, introducing leading questions and biased scales. An accompanying letter indicates that the questionnaire must be sent out as revised. You do not believe that valid information can be gathered using the revised instrument.

#### What action would you take?

4. A well-respected public figure is going to face trial on a charge of failing to report his part ownership of certain regulated companies while serving as a Canadian provincial minister. The defense lawyers have asked you, as a market research specialist, to do a research study to determine the characteristics of people most likely to sympathize with the defendant and hence to vote for acquittal. The defense lawyers have read newspaper accounts of how this approach has been used in a number of instances.

#### What action would you take?

5. You are the market research director for a large chemical company. Recent research indicates that many of your company's customers are misusing one of its principal products. There is no danger resulting from this misuse, though customers are wasting money by using too much of the product at one time. You are shown the new advertising campaign by the advertising agency. The ads not only ignore this problem of misuse, they actually seem to encourage it.

#### What action would you take?

6. You show up your first day for a summer internship to meet your supervisor and get your first assignment. She gives you a questionnaire with specific marketing planning questions and tells you that she would like you to contact the company's main three competitors and tell them you are a student doing a study on the industry and get the answers to the questions. She says you should not tell them you are working for the company over the summer and adds "there is nothing wrong with not telling them—omitting the fact is not really lying." You ask her what you should do if they ask, and she says "just tell them you are a student working on a paper and you don't want to get a poor grade on the assignment."

#### What action would you take?

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<sup>1</sup>These vignettes were provided through the courtesy of Professor Charles Weinberg, University of British Columbia, and are reproduced with his permission.

### CASE 3-1 A VideOcart Test for Bestway Stores

The executives of Bestway Stores were intrigued with a proposal they had received from Information Resources, Inc., the developer of the VideOcart, to participate in a market test of the new point-of-sale technology. They were debating whether to agree to let IRI conduct a test in 3 of their 300 stores. Their reasons for doing it were not because they especially wanted to help IRI, but rather to learn about the benefits and shortcomings of this approach to in-store displays as a possible competitive weapon. As an input to the decision, the marketing research department was asked to design a study that would assess the desirability of deploying the new display technology in all their stores once the test was finished. The test was to last about 12 months.

#### How Does a VideOcart Work?

Here is what a consumer would find:

*After a long day at work, you rush to the supermarket to pick up dinner. As you wheel a grocery cart down the aisle, an ad for Brand X coffee flashes on a liquid-crystal screen perched on your cart's handlebar. The ad reminds you that you need coffee, so you drop a can of Brand X into your cart and push on to the next aisle.*

Much of what the Bestway Stores' management knew about the VideOcart came from a press conference. They learned that IRI would beam a commercial via satellite to a pick-up dish at each store. The signal would be sent out by a low-power FM transmitter to each cart, and stored in the memory of a computer located in the handlebar of the cart.

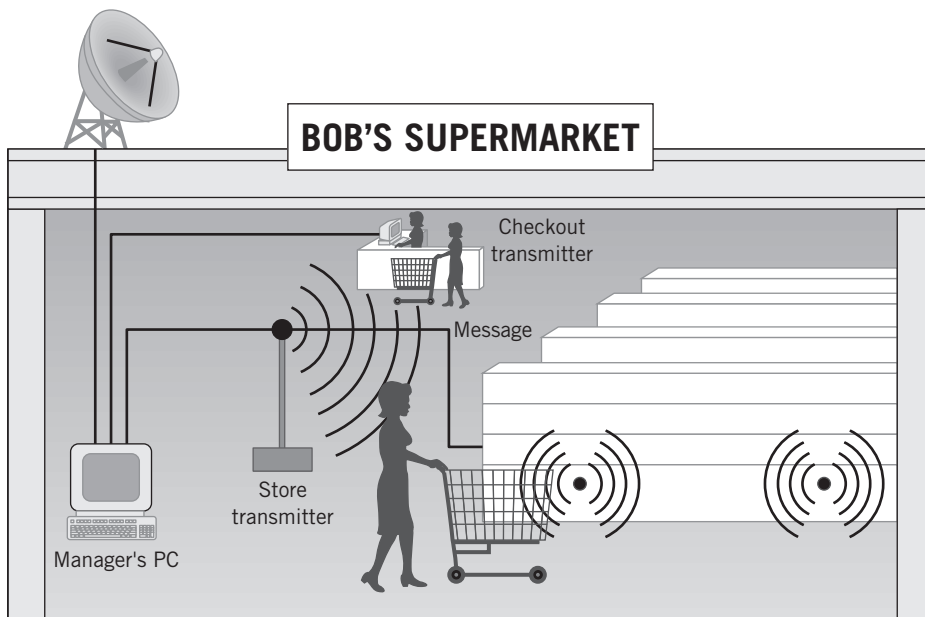
According to an IRI spokesperson,

*The ads will be shown at breaks in an information and entertainment program for consumers and won't interrupt the program. The sequence of the ads shown will be determined by the route of the cart through the store.*

*As a shopper pushes a VideOcart down the aisles, the manufacturer's ads for brands on the shelves being passed at that moment will be "triggered" at a rate of about two per aisle (about 32 per store) and appear on the flat, 6-in. by 8-in. liquid-crystal display mounted on the handles of the cart. Tie-in promotion ads also will be able to be used—for instance, a hotdog bun ad when the cart is near the hot dogs.*

*Only about 15 percent of VideOcart's display time will be devoted to ads. The rest will be a friendly medium in which to display ads, including a continually changing video newsmagazine, news to create a new shopping experience, store specials and maps, trivia questions, and videogames to play while waiting to check out.*

*The video seen on the screen isn't television but will use attention-getting graphics created on a personal computer.*



## The Test of the VideOcart

*Besides gathering sales data, the test markets will be used to perfect consumer programming and fine-tune the technology. IRI also will be checking on factors such as the ideal length of ads, shopper interest in games and information, how the shopper interacts with the unit, and opportunities for the grocers to contribute programming. VideOcart's computer capabilities also will offer supermarkets some advantages, including sounding an alarm if a cart is taken too far from the store, as in an attempt to steal it. The stores also could use VideOcart to transmit information such as the shortest checkout line, the next number up at the deli counter, or that a red Ford in the parking lot has its lights on.*

*We will put the needed equipment into the supermarkets—including a satellite dish on the roof—at no cost to the retailers and eventually will pay the supermarkets a royalty four to six times greater than they're now receiving from other shopping cart ads. We're not asking for an exclusive in*

*the supermarkets, but we're out to make that other type of shopping cart ad irrelevant.*

*The VideOcarts will be designed to be weather-proof and childproof. The retailers will have to recharge the batteries on the carts each night.*

*The carts should be equipped for under \$500 per cart. The average supermarket has about 100 carts and IRI would turn about 75 of them into VideOcarts, which we expect shoppers will seek out because they'll make shopping efficient and fun.*

*VideOcart will offer excellent media efficiency compared to other alternatives. Once national, the medium will reach 60 percent of all shoppers in a week at the cost per thousand of a free-standing newspaper insert—\$4–\$5 per thousand households.*

*VideOcart ads will be able to be created in a few hours and somewhat inexpensively using microcomputer graphics software. The learning curve to master the technology should be short and IRI will provide technical support and counsel.*

## The Assignment

The marketing research manager pondered about this project and wondered what really had to be learned to draw up a statement of purpose. With this in hand the design of the research would be a lot easier. Time was

short, for management needed to know how the research manager was going to get usable information. If it looked too difficult or expensive, they might not agree to a test in their stores.

## CASE 3-2 Sperry/MacLennan Architects and Planners

In August 1988 Mitch Brooks, a junior partner and director of Sperry/MacLennan (S/M), a Dartmouth, Nova Scotia, architectural practice specializing in recreational facilities, is in the process of developing a plan to export his company's services. He intends to present the plan to the other directors at their meeting the first week of October. The regional market for architectural services is showing some signs of slowing, and S/M realizes that it must seek new markets. As Sheila Sperry, the office manager and one of the directors, said at their last meeting, "You have to go wider than your own backyard. After all, you can only build so many pools in your own backyard."

### About the Company

Drew Sperry, one of the two senior partners in Sperry/MacLennan, founded the company in 1972 as a one-man architectural practice. At the end of its first

year, the company was incorporated as H. Drew Sperry and Associates; by then Sperry had added three junior architects, a draftsman, and a secretary. One of those architects was John MacLennan, who would later become a senior partner in Sperry/MacLennan.

Throughout the 1970s, the practice grew rapidly as the local economy expanded, even though the market for architectural services was competitive. With the baby-boom generation entering the housing market, more than enough business came its way to enable Sperry to develop a thriving architectural practice, and by 1979 the company had grown to 15 employees and had established branch offices in Charlottetown and Fredericton. These branch offices had been established to provide a local market presence and meet licensing requirements during this aggressive growth period.

But the growth could not last. The early 1980s was not an easy time for the industry, and many architectural firms found themselves unable to stay in business through a very slow period in 1981–1982. The company laid off all but the three remaining partners: Drew, Sheila Sperry, and John MacLennan. However, one draftsman and the secretary refused to leave, working



without pay for several months in the belief that the company would win a design competition for an aquatics center in Saint John; their faith in the firm is still appreciated today.

Their persistence and faith was rewarded in 1983. Sperry won the competition for the aquatics facility for the Canada Games to be held in Saint John. Sperry had gained national recognition for its sports facility expertise, and its reputation as a good design firm specializing in sports facilities was secured.

From the beginning, the company found recreational facilities work to be fun and exciting. To quote Sheila Sperry, this type of client "wants you to be innovative and new. It's a dream for an architect because it gives him an opportunity to use all the shapes and colors and natural light. It's a very exciting medium to work in." So they decided to focus their promotional efforts to get more of this type of work and consolidate their "pool designer" image by associating with Creative Aquatics on an exclusive basis in 1984. Creative Aquatics provided aquatics programming and technical operations expertise (materials, systems, water treatment, safety, and so on) to complement the design and planning skills at Sperry.

The construction industry rebounded in 1984; declining interest rates ushered in a mini-building boom, which kept everyone busy for the 1984–1987 period. Mitch Brooks joined the practice in 1987. The decision to add Brooks as a partner, albeit a junior one, stemmed from their compatibility. Brooks was a good production architect, and work under his supervision came in on budget and on time, a factor compatible with the Sperry/MacLennan emphasis on customer service. The company's fee revenue amounted to approximately \$1.2 million in the 1987 fiscal year; however, salaries are a major business expense, and profits after taxes (but before employee bonuses) accounted for only 4.5 percent of revenue.

Now it is late August, and with the weather cooling, Mitch Brooks reflects on his newest task, planning for the coming winter's activities. The company's reputation in the Canadian sports facility market is secure. The company has completed or has in construction five sports complexes in the Maritime Provinces and five in Ontario, and three more facilities are in design. The awards have followed, and just this morning, Drew was notified of their latest achievement—the company has won the \$10,000 Canadian Architect Grand Award for the Grand River Aquatics and Community Center near Kitchener, Ontario. This award is a particularly prestigious one because it is given by fellow architects in recognition of design excellence. Last week Sheila Sperry received word that the Amherst, N.S., YM-YWCA won the American National Swimming Pool and Spa Gold Medal for pool design against French and Mexican finalists, giving them international recognition. Mitch Brooks is looking forward to his task. The partners anticipate a slight

slowdown in late 1988, and economists are predicting a recession for 1989. With 19 employees to keep busy and a competitor on the West Coast, they decided this morning that it is time to consider exporting their hard-won expertise.

### The Architecture Industry

Architects are licensed provincially, and these licenses are not readily transferable from province to province. Various levels of reciprocity are in existence. For this reason, joint ventures are not that uncommon in the business. In order to cross provincial boundaries, architecture firms in one province often enter into a joint venture arrangement with a local company.

It is imperative that the architect convince the client that he or she has the necessary experience and capability to undertake the project and to complete it satisfactorily. S/M has found with its large projects that the amount of time spent meeting with the client requires some local presence, although the design need not be done locally.

Architects get business in a number of ways. "Walk-in" business is negligible, and most of S/M's contracts are the result of one of the following five processes:

1. A satisfied client gives a referral.
2. A juried design competition is announced. (S/M has found that these prestigious jobs, even though they offer "runners up" partial compensation, are not worth entering except to win, since costs are too high and the compensation offered other entrants too low. Second place is the same as last place. The Dartmouth Sportsplex and the Saint John Aquatic Center were both design competition wins.)
3. A client publishes a "Call for Proposals" or a "Call for Expressions of Interest" as the start of a formal selection process. (S/M rates these opportunities; unless it has a 75 percent chance of winning the contract, it views the effort as not worth the risk.)
4. A potential client invites a limited number of architectural firms to submit their qualifications as the start of a formal selection process. (S/M has a prepared qualification package that it can customize for a particular client.)
5. S/M hears of a potential building and contacts the client, presenting its qualifications.

The fourth and fifth processes are the most common in buildings done for institutions and large corporations. Since the primary buyers of sports facilities tend to be municipalities or educational institutions, these are the ways S/M acquires a substantial share of its work. Although juried competitions are not that common, the publicity possible from success in landing this work is important to S/M. The company has found

that its success in securing a contract is often dependent on the client's criteria and the current state of the local market, with no particular pattern evident for a specific building type.

After the architect signs the contract, there will be a number of meetings with the client as the concept evolves and the drawings and specifications develop. Therefore, continuing client contact is as much a part of the service sold as the drawings, specifications, and site supervision and, in fact, may be the key factor in repeat business.

Developers in Nova Scotia often are not loyal buyers, changing architects with every major project or two. Despite this, architects are inclined to think the buyer's loyalty is greater than it really is. Therefore, S/M scrutinizes buyers carefully, interested in those that can pay for a premium product. S/M's philosophy is to provide "quality products with quality service for quality clients," and thus produce facilities that will reflect well on the company.

### The Opportunity

In 1987, a report entitled "Precision, Planning, and Perseverance: Exporting Architectural Services to the United States" identified eight market niches for Canadian architects in the United States, one of which was educational facilities, in particular post-secondary institutions. This niche, identified by Brooks as most likely to match S/M's capabilities, is controlled by state governments and private organizations. Universities are known not to be particularly loyal to local firms and so present a potential market to be developed. The study reported that "post-secondary institutions require design and management competence, whatever the source" (p. 39). Athletic facilities were identified as a possible niche for architects with mixed-use-facility experience. Finally, the study concluded that "there is an enormous backlog of capital maintenance and new building requirements facing most higher education institutions" (p. 38).

In addition to the above factors, the study indicated others that Brooks felt were important:

1. The United States has 30 percent fewer architectural firms per capita than Canada.
2. The market shares many Canadian values and work practices.
3. The population shift away from the Northeast to the Sunbelt is beginning to reverse.
4. Americans are demanding better buildings.

Although Brooks knows that Canadian firms have always had a good reputation internationally for the quality of their buildings, he is concerned that American firms are well ahead of Canadian ones in their use of CADD (computer-assisted design and drafting) for everything from conceptual design to facility management. S/M, in spite of best intentions, has been unable to get CADD off the ground, but is

in the process of applying to the Atlantic Canada Opportunities Agency for financial assistance in switching over to CADD.

Under free trade, architects will be able to engage freely in trade in services. Architects will be able to travel to the United States and set up an architectural practice without having to become qualified under the American Institute of Architects; as long as they are members of their respective provincial associations and have passed provincial licensing exams and apprenticeship requirements, they will be able to travel and work in the United States and import staff as required.

### Where to Start?

At a meeting in Halifax in January 1988, the Department of External Affairs had indicated that trade to the United States in architectural services was going to be one positive benefit of the Free Trade Agreement to come into force in January 1989. As a response, S/M has targeted New England for its expansion, because of its geographic proximity to S/M's homebase in the Halifax/Dartmouth area and also because of its population density and similar climatic conditions. However, with all the hype about free trade and the current focus on the United States, Brooks is quite concerned that the company might be overlooking some other very lucrative markets for his company's expertise. As part of his October presentation to the board, he wants to identify and evaluate other possible markets for S/M's services. Other parts of the United States, or the affluent countries of Europe, where recreational facilities are regularly patronized and design is taken seriously, might provide a better export market, given S/M's string of design successes at home and the international recognition afforded by the Amherst facility design award. Brooks feels that designing two sports facilities a year in a new market would be an acceptable goal.

In his search for leads, Brooks notes that the APPA (Association of Physical Plant Administrators of Universities and Colleges) charges \$575 for a membership, which provides access to its membership list once a year. But this is only one source of leads. And of course there is the U.S. Department of Commerce, Bureau of the Census, as another source of information for him to tap. He wonders what other sources are possible.

S/M appears to have a very good opportunity in the New England market because of all its small universities and colleges. After a decade of cutbacks on spending, corporate donations and alumni support for U.S. universities has never been so strong, and many campuses have sports facilities that are outdated and have been poorly maintained. But Mitch Brooks is not sure that the New England market is the best. After all, a seminar on exporting that he attended last week indicated that the most geographically close market, or even the most psychically close one, may not be the best choice for long-run profit maximization and/or market share.

## Questions for Discussion

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1. What types of information will Brooks need to collect before he can even begin to assess the New England market? Develop a series of questions you feel are critical to this assessment.
2. What selection criteria do you believe will be relevant to the assessment of any alternative markets? What preliminary market parameters are relevant to the evaluation of S/M's global options?
3. Assuming that S/M decides on the New England market, what information will be needed to implement an entry strategy?

Source: This case was adapted with permission from a case prepared by Dr. Mary R. Brooks, of Dalhousie University.

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### CASE 3-3 Philip Morris Enters Turkey

Under regulatory and legal fire in the United States, tobacco companies have been staking their financial futures in developing countries. In the seven years since Turkey abolished price controls that had propped up its state-owned tobacco company, Philip Morris has gotten millions of Turks to cast aside local cigarettes in favor of its Marlboro, Parliament, and L&M brands. For Philip Morris—which saw international tobacco profits grow 60 percent to \$4.6 billion last year from 1994—nowhere has that push been more successful than in Turkey. In the nation that inspired the phrase “smokes like a Turk,” 43 percent of the 62.9 million population smokes, according to government estimates, compared to 25 percent in the United States. Meantime, cigarette consumption in Turkey has increased at an annual rate of about 4.76 percent since 1992, making this one of the fastest-growing markets in the world. Philip Morris has watched its share of the Turkish cigarette market mushroom, to 23 percent in 1997 from 15 percent in 1995, while Tekel, the government-owned tobacco company, has seen its hold drop to 70 percent from 82 percent over the same period, according to figures provided by the Turkish government. Third-ranked R.J. Reynolds, with its Winston and Camel brands, says its share has grown to 7.3 percent from 2.9 percent.

Turkish smokers got their first taste of Philip Morris brands in the 1970s, when smuggled, tax-free American cigarettes began flooding local bazaars. But it wasn't until the early 1980s that the company was allowed to sell cigarettes in Turkey. Eager to raise Turkey's status in the West, then-Prime Minister Turgut Ozal decided to turn his rural country into a model of free enterprise. One of his targets: Tekel, the creaky state monopoly that has held exclusive rights to sell tobacco, salt, and liquor to Turks since the waning days of the Ottoman Empire.

How could Mr. Ozal prod Tekel into the modern age? He announced in 1984 that foreign tobacco

merchants would be allowed in Turkey for the first time since the days of the sultans.

But there was a catch: Tekel would continue to price and distribute all cigarettes both foreign and domestic. That advantage came in especially handy when Tekel in 1988 launched Tekel 2000, a cigarette blended with American tobacco leaves that it designed to compete with Marlboro. Priced about 25 cents lower than a standard 20-cigarette pack of Marlboros at the time, Tekel 2000 quickly won a quarter of the market.

Arguing that it couldn't survive in Turkey unless it had the right to price and distribute its own products, Philip Morris leveraged the one thing it had that the government badly wanted: millions of dollars to invest in the country. And it wouldn't invest that money unless Tekel gave up control.

Tekel eventually relented, and in May 1991, Philip Morris got the right to market, price, and distribute its own cigarettes, conditioned on a number of factors, including building its own factory. Philip Morris announced a joint venture with Sabanci Holding Inc., a local company, and poured \$100 million to start construction of a factory in the southwestern city of Torballi. The factory opened in 1993; Philip Morris eventually expanded it into a \$230 million facility capable of cranking out more than 28 billion cigarettes annually.

Supporting the idea that Philip Morris adjust its cigarette blends is a confidential 1992 report, titled “PM's Global Strategy: Marlboro Product Technology,” conducted by researchers at rival B.A.T. Industries PLC's Brown & Williamson unit. “When Marlboro has been introduced into a market there is no evidence that initial offerings may be closer to that market's traditional taste,” concludes the report that documents different Marlboro formulations in countries including Brazil, Britain, and Germany. “Over time PM will alter the product and introduce product technology more consistent with an overall Marlboro sensory character.”

Philip Morris says it doesn't comment on speculation by competitors. The company says it strives



"to ensure that Marlboros are as consistent as possible worldwide," but adds that some variation results from local regulations that limit constituents like tar or require the use of locally grown tobaccos. Beyond the taste difference, Tekel couldn't keep up when Marlboro's

prices were cut. Although they still maintain Tekel 2000 was a success, Tekel executives announced that they want to sell the brand to a foreign competitor. Where Philip Morris really bested rivals is in marketing and distribution.

## Questions for Discussion

1. Obtain information on the current consumption pattern of cigarettes in Turkey. How has this changed in the last 10 years? What kind of research should Philip Morris be doing to gain market share in Turkey?
  2. What kind of information should Philip Morris obtain to decide on a marketing and distribution strategy in Turkey? How can Philip Morris obtain this information?
  3. Is it ethical for Philip Morris to overtly alter the taste of its cigarettes over a period of time for its own profit?
- Source: This case was prepared by V. Kumar and Rajkumar Venkatesan for the purpose of classroom discussion from "How Philip Morris Got Turkey Hooked on Marlboro," *Wall Street Journal*, September 1998.

## CHAPTER 4—CASE

### CASE 4-1 Reynolds Tobacco's Slide-Box Cigarettes

There is a tendency for management to think of marketing research as an expense, perhaps a necessary expense, but an expense nevertheless. With corporate attention being focused more and more on the bottom line, one question is often asked: "What is the impact of current or potential new activities on profit?" This case focuses on how marketing research can aid in decision making and enhance the bottom line.

To give you some basic understanding of the business situation, the cigarette industry is very mature. Many big opportunity areas for product differentiation have already been thoroughly explored and mined by the major manufacturers. There are different product attributes, ranging from different flavors (menthol and nonmenthol), to different "tar" levels (full flavor, light/low "tar," ultralow "tar"), to different lengths (king size to 120 mm), and even different circumferences (superslims to wide circumference). Imagery is another means of differentiating products, so there are upscale cigarettes, masculine cigarettes, feminine cigarettes, and so on. Finally, price is another important dimension differentiating brands. Combining all these methods of differentiating products results in literally hundreds of types of cigarettes available to smokers, ranging from superslim, ultralow-tar 120s in a box to traditional nonfilter 70-mm cigarettes.

With this in mind, you would think that there are few new ideas under the sun for tobacco manufacturers.

That may be, but ideas that have the potential to draw business from competition and increase one company's share of the market are constantly being examined.

One such new idea was a brand that R.J. Reynolds Tobacco Co. (RJR) had in test market. This new brand was developed to capture Marlboro smokers with imagery that was more sociable and had more appeal to both male and female adult smokers than Marlboro's traditional solitary cowboy image. From a product standpoint, the new brand's smoothness was emphasized in contrast to the rich flavor emphasized in Marlboro advertising. Marlboro's conventional crush-proof box has always been a key feature of the brand. Rather than offering the new brand in an identical packaging configuration, Reynolds Tobacco's R&D department developed a slide-box, a unique configuration that operated something like a matchbox. This feature was intended as yet another point of difference to attract Marlboro smokers to the new brand.

Concept product test results of the new brand (Table 4-3) in a conventional crush-proof box, versus the slide-box, indicated that the slide-box would enhance the new brand's appeal among prospect smokers.

When Reynolds management saw these results, they said, "If this slide-box is better than the conventional crush-proof box, we shouldn't just limit it to a new brand that may or may not make it out of the test market. To really capitalize on the apparent appeal of the slide-box, we should put it on our established products." The direction to put it on established brands is not as clear as it may sound at first blush. There were several questions to be resolved: Which brands? Which styles of which brands? Should the slide-box replace

**TABLE 4-3**  
**Concept Product Test Results**

	Conventional Crush-Proof Box	Slide-Box
Positive purchase interest	56→	64
<i>Intended frequent use</i>	<u>59</u> →	<u>68</u>
As usual brand	20	24
Occasionally	39	44
<i>Package increased</i>		
<i>purchase interest</i>	<u>51</u> →	<u>73</u>
Increased a lot	27	53
Increased a little	24	20
Overall positive taste rating	72→	80

→ = Significant at 80% confidence level or greater.

any current conventional crush-proof box, or should it be an additional offering? How would a slide-box launch fit in with other planned programs? How big an announcement should this be? (All media forms? Point-of-sale advertising only?) Should pack graphics be redesigned to emphasize the change, or should they just be translated from existing graphics? How much volume would the slide-box generate and, therefore, how much new equipment would need to be purchased?

Given the excitement over this proposition, tentative plans were made regarding which brands would use the slide-box, volume projections were calculated, and equipment was ordered. The long equipment lead time provided time to resolve some of the key questions surrounding the slide-box. The most critical question was which brand or brands should use the slide-box. The issue here was one of image compatibility, that is, whether the inherent image of the slide-box was compatible with the current or desired image of the brand. Another critical question was what was its source of appeal. If it was indeed a better package, what were specific benefits that could be advertised to prospect smokers?

A good deal of what marketing researchers do is implement standardized methodologies to answer recurring marketing questions: How does a product compare to competition? How effective is this new ad campaign? How appealing is this premium? The issues and questions surrounding the slide-box were new, so the marketing research department developed a custom research design that they felt would generate required consumer input on the slide-box.

The research was designed with two objectives. The first objective was to determine which of RJR's major established brands has an image consistent with the image projected by the slide-box; and the second

objective was to determine the degree of interest in this new slide-box packaging among each of these brands' prospect smoker groups. In designing the study, they knew that they needed to analyze the data by each brand's prospect group. So they designed the sample in two phases. First, a large random sample of adult smokers was drawn. Then additional interviews were conducted to give them large enough bases of specific types of smokers. As a result, the sample for the study consisted of 767 adult smokers, 600 of whom were selected randomly, and an additional 167 interviews to fill out specific prospect group quotas.

Given the sample size and the fact that RJR wanted representation across the country, the marketing research department conducted personal interviews in 20 geographically dispersed markets during June 1991. The biggest challenge in designing this research was to evaluate the image of the packaging itself without allowing any influence of the image of any brand. Hence, they showed smokers a sample of the packaging without any graphics. Further, since they wouldn't be able to evaluate people's responses to the slide-box packaging in a vacuum, they also showed them prototypes of current packaging, that is, conventional crush-proof box and soft pack, also without any graphics. This provided benchmarks to help them interpret the results.

They agreed that there are two aspects of packaging on which the packs should be evaluated: benefits of the packaging itself (such as protecting the contents, being easy to open or close, etc.), and the image of the types of smokers who would use such packaging (such as white-collar versus blue-collar). They showed respondents prototypes of each of the three types of packaging attributes and user imagery. Importantly, each smoker interviewed was given a fresh prototype and allowed to open it. After they had obtained this information, they then had each

**TABLE 4-4**  
**Overall Evaluation of Packs**

	Slide-Box Pack (%)	Conventional Crush-Proof Box (%)	Soft Pack (%)
Favorable	60	70	42
Unfavorable	26	8	26

of the brands in their study rated on these same user characteristics.

Finally, they asked the smokers in their study directly how appropriate the three types of packages were for the brands of cigarettes included in their study. The order in which all packs and brands were presented was rotated to avoid any order bias. The results of the overall evaluation of packs are given in Table 4-4.

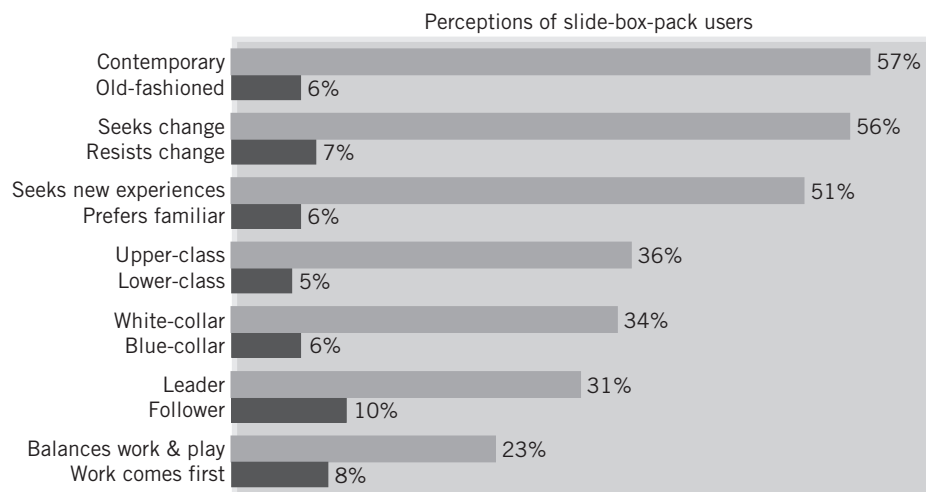
The outcomes of the perception studies are illustrated in Figures 4-4, 4-5, and 4-6.

The researchers found that the slide-box had functionality problems as compared to the conventional crush-proof box. It was seen as having cosmetic advantages, such as being attractive, modern, being in its own case, and having an edge over the conventional crush-proof box. And, once opened, hard to keep closed. Thus, the cigarettes were more apt to fall out. The slide-box was also seen as less convenient to use. And importantly, the slide-box was perceived to be more gimmicky than the conventional crush-proof box. It is important to note that although these problems were pervasive, in that all target groups felt this way, it was conceivable that these pack problems might go away as smokers became more experienced with using this configuration.

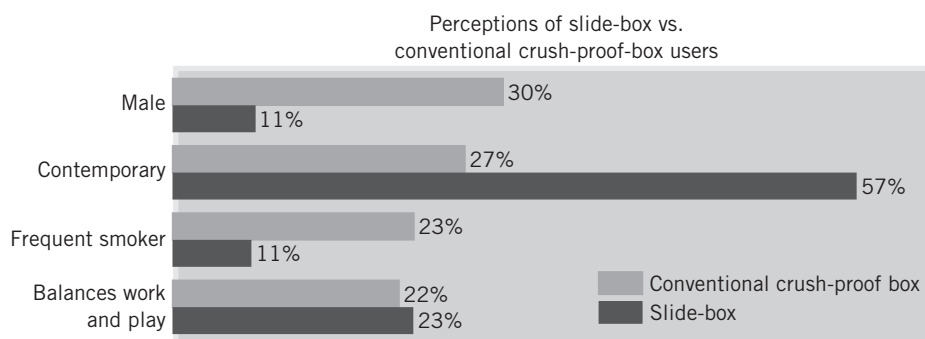
It was also important that the user image of the slide-box was, with one exception, not felt by respondents to be compatible with the user imagery of the brands for which the pack was being considered. The analysis found that only one of the established brand's prospect group was most likely to find the slide-box as appropriate for the brand as the conventional crush-proof box and to believe that brand's smokers and slide-box users share many similar characteristics. Both groups were pictured as white-collar, upper-class women seeking changes and new experiences. The only inconsistency was that respondents perceived the slide-box user as European. Their image of the slide-box user was more consistent with their image of their current brand than their image of the conventional crush-proof-box user.

The results of the appropriateness of packs of cigarette brands are presented in Table 4-5.

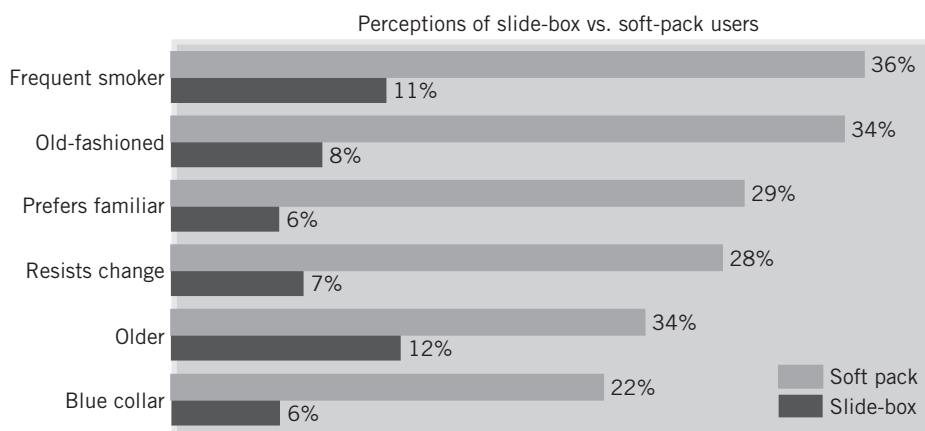
The new brand was not included in this national study, as it was only in test market at this time. However, the new brand's prospect group did not rate the slide-box as highly overall as they rated the conventional crush-proof box. Figure 4-7 provides the differences in perception of slide-box-pack users among the new-brand smokers.



**FIGURE 4-4**  
**Perceptions of slide-box-pack users.**



**FIGURE 4-5**  
Perceptions of slide-box versus conventional crush-proof-box users.

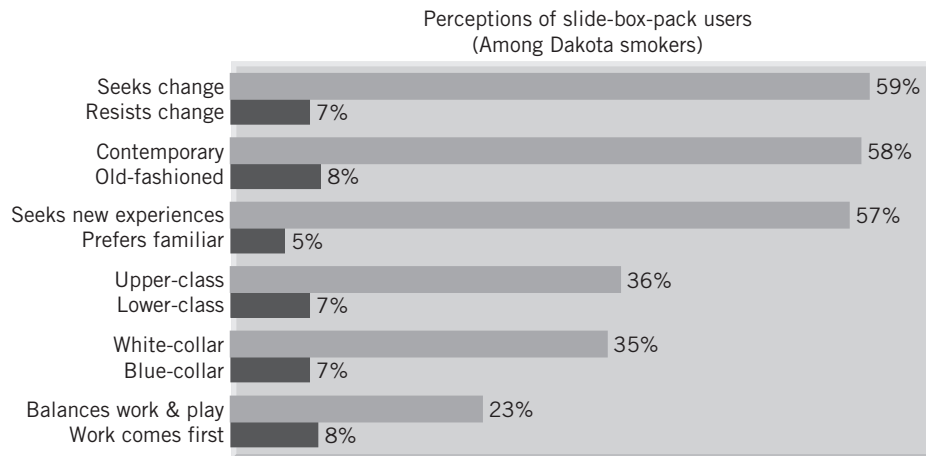


**FIGURE 4-6**  
Perceptions of slide-box versus soft-pack users.

**TABLE 4-5**  
**Appropriateness of Packs of Cigarette Brands**

	Percent Saying Extremely/Very Appropriate				Most Often Brand
	Established Brand A	Established Brand B	Established Brand C	Established Brand D	
Slide-box	32	47	49	39	48
Conventional crush-proof box	55	64	51	62	73
Soft pack	61	44	39	55	44





**FIGURE 4-7**  
Perceptions of slide-box-pack users (among new brand smokers).

## Questions for Discussion

1. Why are the results of the second study different from the first?
2. Based on these findings, what is your recommendation to the company?

Source: This case was adapted with permission from a case originally written by H. Daniel Murphy and Mary E. Brownell, "How Research Can Save Your Company Time and Money!: A Case Study," *The Council of American Survey Research Organizations Annual Journal*, 1992, pp. 107–112.

## CASE 4-2 California Foods Corporation

In early 1990, the international marketing manager at California Foods Corporation (CFC), Lois Verbrugge, was considering how to react to the continuing decline of CFC grape juice sales in the Puerto Rican market. In 1989, the marketing staff in the international division estimated that sales of CFC grape juice had fallen off by approximately 30 percent from the previous year. To determine why this loss of volume had taken place, extensive consumer research was utilized. But, as of February, Ms. Verbrugge and her staff had not come up with any clear-cut remedies for CFC's problems in the Puerto Rican market.

### Company Background

CFC was a wholly owned subsidiary of the Federation of Grape Growers' Associations. The federation purchased the California Foods Corporation in 1956 as part of a strategy to integrate its business forward into the processing and distribution of grape products. CFC continued in 1990 to operate as an agribusiness largely as it had in 1956. The federation supplied the grapes,

and CFC handled all processing and marketing of the products. CFC's sales had increased every year since the takeover by the federation. CFC was generally considered the foremost leader in the juice industry. It set the standards for progressive marketing techniques and new product development for the industry. With sales reaching a quarter billion dollars in 1989, the growers and CFC were the largest grape growing, processing, and marketing enterprise in the world.

Originally, CFC had produced only grape-related products: grape jams, grape jelly, frozen grape concentrate, grape drink, and grape preserves. In recent years, however, CFC had expanded to include nongrape products, too. Between 1970 and 1982, CFC introduced 36 new products. In 1990, CFC incorporated a complete line of fruit juices with a selection of fruit drinks and a line of fruit-flavored preserves.

### CFC's International Division

CFC distributed an assortment of products to foreign markets with the majority of sales derived from juices and fruit drinks. It marketed its products to over 40 countries. Major markets included Puerto Rico, Mexico, and Japan. CFC products were distributed

by food brokers and distributors to retail stores and food service institutions. In 1988, the International Division experienced record sales and greater than expected profitability. Sales slipped slightly during 1989, largely the result of sales erosion in the Puerto Rican market.

### The Juice and Drinks Market in Puerto Rico

Most of the juice consumption in Puerto Rico was composed of imported products. Some of the more popular brands competing for market share were CFC, Seneca, Pueblo, and Grand Union. There was only one domestic grape juice producer, selling under the name Richy. Richy had been in business for a few years, but its impact on the market had been minimal. Table 4-6 outlines the imported volumes of juices and drinks into Puerto Rico over the last three years.

As the table reveals, grape juice imports (California Foods' and others) were declining rather sharply. Still, the grape juice market was by far the largest juice market in Puerto Rico.

The "fruit drink" category was quite large too and was growing, especially the miscellaneous/all-others subgroup, which included Tang's imported powdered grape and orange drinks. Because many Puerto Ricans equated powdered grape with grape juice, it was possible that at least some of CFC grape juice's volume loss could be traceable to these imports, although no hard evidence existed.

Frozen concentrates represented another competing group that was large and had shown strong growth in the preceding three years. Again, the miscellaneous/all-others subgroup had shown steady growth. Perhaps some of CFC grape juice's loss could be attributable to a shift of sales across generic categories.

### CFC's Entry into Puerto Rico

CFC's first experience in Puerto Rico came in the 1950s when it introduced CFC grape juice. At that point, grape juice was practically unheard of by the majority of Puerto Ricans. Despite this, the introduction was a resounding success and CFC grape juice became the best-selling juice in Puerto Rico.

Rumor had it that CFC grape juice's success was traceable to the Puerto Rican beliefs that grape juice was good for men's virility and for women's hemoglobin during their menstrual cycles. Pseudomedicinal drinks were concocted by mixing eggs with grape juice. The resulting mixture was referred to as an "egg punch." To take advantage of this seemingly unique consumer behavior, CFC launched an "egg punch" campaign in 1985. One television spot showed a young Puerto Rican man at a disco drinking an egg punch and subsequently departing with an attractive young woman. Print advertising featured a mother nursing her newborn and copy expounding the nutritional value of grape juice.

**TABLE 4-6**  
**Juices and Drinks Imported into Puerto Rico**

	Thousands of Cases (not equivalents)			Percent of Change
	1987	1988	1989	1988-1989
Fruit juices				
Vegetable juice	20.6	23.4	23.9	+2.1
Tomato juice	45.5	21.2	26.3	+24.6
Apple juice	84.5	109.0	105.6	-3.1
Citrus juice	203.5	198.7	183.4	-7.7
Nectars	—	5.0	1.8	-64.0
Pineapple juice	22.5	22.9	29.1	+27.1
Prune juice	25.8	23.3	29.5	+26.6
Grape juice CFC	569.1	586.5	412.1	-29.7
Other	40.6	37.1	26.6	-28.3
Fruit drinks				
RJR	114.1	161.0	116.3	-27.8
Borden <sup>a</sup>	92.9	124.4	132.6	+6.6
Miscellaneous/all others <sup>b</sup>	260.5	296.4	356.0	+20.4
Fruit juice—frozen and concentrated				
Citrus Central	184.8	236.6	219.5	-7.2
CFC	34.4	24.4	32.5	+33.2
Miscellaneous/all others	378.1	431.5	499.8	+15.8

<sup>a</sup>Includes Orange Burst instant breakfast drink, Wyler's ades.

<sup>b</sup>Includes Tang powdered grape and orange drinks.

Source: *Maritime Reports*, Washington, DC. U.S. Government Printing Office, 1990.

TABLE 4-7

### Consumption Results of Sample of Puerto Rican Grape Juice Users During 1988 and 1989

Juices	Previous Users (n = 45)				Current CFC Users (n = 155)			
	More	Same	Less	Don't Use	More	Same	Less	Don't Use
Orange	57.7%	28.9%	11.1%	2.3%	43.5%	42.2%	11.7%	2.6%
Grape	13.3	37.8	24.5	24.4	38.9	47.4	13.0	0.7
Pineapple	22.2	26.7	33.3	17.8	23.3	29.9	31.1	15.7
Grapefruit	15.6	11.1	51.2	22.1	5.2	16.9	45.4	32.5
Fruit drinks	17.7	20.0	35.5	26.8	13.6	29.2	23.3	33.9
Fruit nectar	20.0	35.6	26.7	17.7	13.6	30.5	30.5	25.4
Powdered drinks	31.1	17.8	24.4	26.7	9.1	32.5	34.4	24.0

Grape juice was indeed CFC's biggest seller in Puerto Rico. Sales for 1989 were 412,000 cases. Frozen concentrated grape juice accounted for sales of 32,000 cases during 1989. Other CFC products were Calfood fruit drink, California instant powdered grape drink, CFC grape soda, and CFC strawberry soda.

#### Consumer Research

In order to ascertain the causes of CFC's rapid decline in grape juice sales, an "Awareness, Usage, and Attitude Study" was compiled in February 1990 to update the marketing department's understanding of Puerto Rican grape juice consumers. Two hundred personal interviews were done with people who had used grape juice during the previous two years. The study was administered by a Puerto Rican consulting group. Results are listed in Table 4-7.

The results of the study showed that the demand for orange juice had increased tremendously since 1988. Both current and previous study users of CFC grape juice were drinking much more orange juice by 1990. In addition, the percentage of respondents who did not use orange juice was practically nil.

Current users of CFC juice continued to drink large quantities of grape juice, as the figures reveal. In fact, 86 percent of all CFC users said that they drank as much, or more, grape juice in 1989 as they had previously. However, among the previous CFC users, there were many more who had decreased their consumption of grape juice than had increased it. Therefore, it was implied that they were not switching from one grape juice brand to another, but drinking more orange juice instead. Over 57 percent of previous CFC users drank more orange juice by 1990 than they had in early 1988.

The main motive for the purchase of grape juice by mothers in the sample was because their children had asked for and/or liked it. The study also revealed that

Puerto Ricans perceived grape juice to be both tasty and nutritious. On the negative side, respondents who were buying less grape juice had a variety of reasons for not buying it; most notably, very high price and preference for other juices were mentioned.

It was discovered that previous CFC users replaced grape juice with three other types of beverages: other canned juices (pineapple, orange, grapefruit), natural juices (orange, grapefruit, tamarind, lemon), and carbonated drinks (Pepsi, Coca-Cola, and the like).

Researchers had asked the question "Why aren't you using more CFC grape juice?" The most frequent response indicated that CFC's price was too high and that the respondents tried to buy products that were more economical. Secondary reasons suggested that they did not like the taste and preferred other flavors to grape. Table 4-8 summarizes consumers' reasons for buying either less or no grape juice in general and of CFC's in particular.

CFC had performed a similar consumer study in 1985 to determine grape juice drinkers' attitudes toward CFC grape juice. One section of the 1985 questionnaire involved consumers' opinions of the characteristics of CFC grape juice. Likewise, part of the 1990 survey was devoted to similar questioning. In both studies, respondents rated CFC grape juice on the basis of eight criteria, on a scale from 1 to 6. The figures in Table 4-9 represent average ratings for each of the product characteristics.

Both studies seemed to suggest that CFC grape juice had been, and still was, well regarded in the Puerto Rican market. There had not been too much change in the general opinion that CFC grape juice was a good-tasting, nutritious, high-quality product. In consumers' minds even the price had become more reasonable in relation to the generally stormy economic conditions. So what seems to be the problem with CFC grape juice in the Puerto Rican market?

**TABLE 4-8****Respondents' Reasons for Not Buying Grape Juice**

	Reasons for No Longer Serving Grape Juice	Reasons for No Longer Serving CFC Grape Juice
High price	22.6%	23.2%
Only use it occasionally	9.7	4.4
Prefer other flavors	29.0	22.2
Harmful to stomach/diet	12.9	10.3
Prefer natural juices	16.1	6.7
Not accustomed to using it	n.a.	8.9
Prefer powdered drinks	n.a.	8.7
Other	9.7	15.6
Total	100.0%	100.0%

**TABLE 4-9****Averaged Ratings of CFC Grape Juice  
(scale of 1 to 6)**

	1990 Study ( <i>n</i> = 200)	1985 Study ( <i>n</i> = 200)
Sweetness	4.95	3.96
Taste	4.96	4.73
Economy	3.86	3.47
Nutrition	5.06	5.24
Naturalness	4.91	5.05
Best for children	4.97	4.92
Best for adults	4.88	4.74
Quality	5.13	5.17

The study data appear to support the notion that CFC grape juice is held in high esteem in Puerto Rico, yet a solution to CFC's sales problem is needed. With this in mind, Ms. Verbrugge arranged a meeting with Jeff Hartman, Market Research Manager, to discuss and review the situation. Ms. Verbrugge wanted to examine the problem in more detail and was prepared to commit

additional funds for marketing research. Before making any decision, however, she wanted Mr. Hartman's assessment of the situation.

Source: This case was reprinted with permission from Subash C. Jain, *International Marketing Management*, CA: Southwestern Publishing Co., 1993.

## CASES FOR PART I

### Nature and Scope of Marketing Research

#### CASE I-1

##### Clover Valley Dairy Company

In the fall of 1978, Vince Roth, General Manager of the Clover Valley Dairy Company, was considering whether a newly developed multipack carrier for yogurt was ready for market testing and, if so, how it should be tested.

Since 1930, the Clover Valley Dairy Company had sold, under the trade name Valleyview, milk, ice cream,

and other milk by-products—such as yogurt, cottage cheese, butter, skim milk, buttermilk, and cream—in Camden, New Jersey. The raw milk was obtained from independent farmers in the vicinity of Camden and was processed and packaged at the Clover Valley Dairy.

Clover Valley's sales had grown steadily from 1930 until 1973 to an annual level of \$3.75 million. However, between 1973 and 1977, a series of milk price wars cut the company's sales to \$3.6 million by 1977. During this



time, a number of other independent dairies were forced to close. At the height of the price wars, milk prices fell to 75 cents per half-gallon. In the spring of 1977, an investigation of the milk market in Camden was conducted by the Federal Trade Commission and by Congress. Since then, prices had risen so that Clover Valley had a profit for the year to date.

Clover Valley served approximately 130 grocery store accounts, which were primarily members of a co-operative buying group or belonged to a 10-store chain that operated in the immediate area. Clover Valley no longer had any major chain accounts, although in the past they had sold to several. Because all three of the major chains operating in the area had developed exclusive supply arrangements with national or regional dairies, Clover Valley was limited to a 30 percent share of the Camden area dairy product market.

Although Clover Valley had a permit to sell its products in Philadelphia, a market six times the size of Camden, management decided not to enter that market and instead concentrated on strengthening their dealer relationships. In addition, it was felt that, if a price war were to ensue, it might extend from Philadelphia into the Camden area.

With the healthier market and profit situation in early 1978, Clover Valley began to look for ways to increase sales volume. One area that was attractive because of apparent rapid growth was yogurt. During the previous three years, management had felt that this product could help to reverse Clover Valley's downward sales trend, if given the correct marketing effort. However, the financial problems caused by the loss of the national grocery chains and the price war limited the firm's efforts. As a result, Mr. Roth felt that Clover Valley had suffered a loss of share of yogurt sales in the stores they served.

Since 1975, Mr. Roth had been experimenting with Clover Valley's yogurt packaging with the hope that a new package would boost sales quickly. All dairies in Clover Valley's area packaged yogurt in either 8-oz or 1-lb tubs made of waxed heavy paper. Clover's 8-oz tub was about 5 in. high and  $2\frac{1}{2}$  in. in top diameter, tapering to  $1\frac{3}{4}$  in. at base.

The first design change to be considered was the use of either aluminum or plastic lids on the traditional yogurt tubs. However, these were rejected because the increased costs did not seem to be justified by such a modest change. Changing just the lid would not make their tubs appear different from their competitor's tubs, it was felt.

By 1976, Mr. Roth had introduced a completely different package for Clover Valley's yogurt. The 8-oz tubs were replaced by 6-oz cups, designed for individual servings. In addition, the new cups were made of plastic and had aluminum foil lids. The 1-lb tubs were unchanged. No special promotional effort was undertaken by Clover Valley, but unit sales of the new 6-oz

cups were more than triple the unit sales of the old 8-oz tubs (see Exhibit I-1). While the increased sales volume was welcomed, the new plastic cups increased unit packaging costs from 7.2 cents to 12.0 cents. This more than offset the saving of 4 cents because of the reduction in the amount of yogurt per container. Retail prices were reduced from 41 cents to 34 cents for the new 6-oz cup, while the price for the 1-lb tub remained at 75 cents. The increased sales then increased the total dollar contribution to fixed costs from yogurt by only 5 percent. (All dairies priced their yogurt to give retailers a 10 percent margin on the retail selling price. Competitor's retail prices for their 8-oz tubs remained at 41 cents.)

Mr. Roth felt that both the change to plastic and the convenience of the smaller size were responsible for the increased sales. However, he was disappointed with the high packaging costs and began to look at ways of reducing them, without changing the package much further. He felt another package change would be too confusing to consumers. Because of the economies of scale needed to produce plastic containers, costs could be reduced if more units were produced and sold. Mr. Roth felt that packaging a number of cups together would make the 6-oz cups easier to carry home, which might increase sales, and would certainly reduce packaging costs.

By 1978, work had begun on developing a multipack holder to hold six cups together. A single strip of aluminized plastic would serve both as holder and as the top for two rows of three yogurt cups. A single cup could be readily separated from the others in the pack. Dairy personnel constructed wooden models of several different cups for use with the holder and with plastic-molding experts, choosing one that would mold easily and cheaply. Eventually, some of these carriers were made to order for testing in the plant and among Clover Valley employee families.

Several problems soon became apparent. The holder did not always fasten securely to all six cups in the multipack. While the holder strip was being put on, the side walls of the cups were slightly compressed, causing some cups to crack at the edges. When consumers tried to remove one of the cups, they sometimes pulled the top from an adjacent cup. The problem was the strength of the aluminized plastic, which made it difficult to tear even when perforated.

The multipack was redesigned and again tested in the plant and by employee families. It appeared that the new package was performing satisfactorily. Negotiations with Clover Valley's carton supplier resulted in an estimated price of 8.5 cents for the first 100,000 units. Thereafter unit costs would drop to 7.5 cents per 6-oz cup.

Mr. Roth decided that the best multipack carrier presently possible had been designed. His attention then turned to methods of testing the new packs for consumer acceptance. Mr. Krieger, his father-in-law

## EXHIBIT I-1

### Clover Valley Dairy Company: Sales Results

	1974	1975	1976	1977	1978
Unit Sales of Yogurt—8-oz Tubs (6-oz after June 1977)					
January		1,203	3,531	7,899	18,594
February		996	3,651	7,629	20,187
March		960	3,258	6,677	20,676
April		853	3,888	6,081	20,199
May		861	4,425	5,814	18,420
June		915	4,044	12,726 <sup>a</sup>	14,424
July		978	3,546	13,422	16,716
August		1,254	3,696	15,105	16,716
September		1,212	3,561	23,601	18,657
October	1,740	1,485	4,731	23,214	
November	1,437	2,928	4,499	22,146	
December	1,347	3,528	6,177	17,916	
Unit Sales of Yogurt—1-lb Tubs					
January	3,882	3,715	3,937	3,725	2,971
February	4,015	3,596	3,833	3,510	3,232
March	4,061	3,670	3,285	3,344	2,866
April	3,573	3,405	3,333	3,503	3,392
May	3,310	3,482	3,609	3,101	2,390
June	3,252	3,376	3,366	3,537	2,094
July	3,383	3,366	2,837	3,827	2,589
August	3,721	3,307	2,616	3,103	2,384
September	3,415	3,275	2,729	2,871	2,895
October	3,276	3,450	2,816	3,028	
November	3,865	4,650	3,375	2,796	
December	4,110	3,908	3,386	3,086	

<sup>a</sup>6-oz tubs.

and president of Clover Valley, sent him the following letter concerning market testing:

Dear Vince,

Concerning the market test of the new cups and carriers, I have a few suggestions that may be helpful, although the final decision is yours. I think we should look for a few outlets where we are not competing with the other dairies, perhaps the Naval Base or Bill's Market. Actually, if we use Bill's, then the test could be conducted as follows:

1. Give Bill a special deal on the multipacks for this week-end.
2. In the next two weeks, we'll only deliver the multipacks and no single cups at all.

3. In the third week we'll deliver both the packs and the single cups.
4. During the third weekend we'll have someone make a survey at the store to determine its acceptance.
5. Here is how it could be conducted:
  - a. Station someone at the dairy case.
  - b. After the shoppers have chosen either single cups or the multipacks, question them.
  - c. If they chose the multipacks, ask them why.
  - d. If they chose the single cups ask them why they didn't buy the packs.
  - e. Thank them for their help and time.

Yours,  
CHARLES KRIEGER  
(signed)

## Questions for Discussion

1. Should the new multipack carrier be tested?
2. If a test is judged necessary, what should be the criteria for success or failure?
3. How useful is the proposed test in addressing the management problem? What changes, if any, would you recommend?



### CASE 5-1 Barkley Foods

Joyce Stevenson, the manager of marketing research for Barkley Foods, had just left an emergency meeting with the firm's president. An opportunity to buy an established line of gourmet (high-quality/high-priced) frozen dinners had arisen. Because there were other interested buyers, a decision had to be made within three or four weeks. This decision depended on judgments about the future prospects of the gourmet frozen dinner market and whether Barkley could achieve a competitive advantage. The marketing research group was asked to provide as much useful information as possible within a 10-day period. Although uncomfortable with the time pressure involved, Joyce was pleased that marketing had finally been asked to participate in the analysis of acquisition prospects. She had pressed for such participation and now she had to deliver.

Because of prior work on frozen fruit juices, Joyce had some knowledge of the gourmet frozen market. It was pioneered by Stouffer, who introduced the Lean Cuisine line of entrees in 1981. Since then, other firms have entered the industry with complete gourmet dinners (including Swanson's Le Menu and Armour's Dinner Classics). The distinction between entrees, dinners, and the three main types of food offered—conventional, ethnic (i.e., Benihana Restaurant Classics), or low-calorie (i.e., Weight Watchers or Light & Elegant)—define relevant submarkets. Joyce hypothesized that the gourmet frozen food buyer differs from the buyer of conventional "TV dinners" in several respects. The gourmet frozen food buyers are generally young, upper-socioeconomic-group people who probably have microwaves, are more health conscious, and are likely to be working women and others who want sophisticated cuisine but lack the time to prepare it.

Barkley Foods was a diversified food company with sales of \$2.3 billion. Over 80 percent of its sales came from branded packaged food products sold nationally through grocery stores. Its largest product

areas were canned tomato products, frozen orange juice, cake mixes, and yogurt. Barkley was known to have strengths in operations (product preparation), distribution (obtaining distribution and managing the shelves), and advertising. Their brands typically held a solid second-place position in the supermarket. There was no effort at umbrella brand identification, so each product area was carried by its own brand.

Joyce Stevenson had previously been in strategic planning, and reviewed the type of information and analysis that would be required to support a strategic decision like this one. She wrote down the following four sets of questions to guide the thinking of the research group:

1. Market analysis
  - What are the size, current growth rate, and projected growth rate of the industry and its relevant subsets (such as ethnic dinners) for the next five and ten years?
  - What are the important industry trends?
  - What are the emerging production technologies?
  - What are the distribution trends?
  - What are current and future success factors (a competitive skill or asset needed to compete successfully)?
2. Environmental analysis
  - What demographic, cultural, economic, or governmental trends or events could create strategic threats or opportunities?
  - What major environmental scenarios (plausible stories about the future) can be conceived?
3. Customer analysis
  - What are the major segments?
  - What are their motivations and unmet needs?
4. Competitor analysis
  - Who are the existing and potential competitors?
  - What are their current or forecasted levels of sales, market shares, and profits?
  - What are their strengths and weaknesses?
  - What strategies are they following, and how are they differentiating themselves in the market?

### Questions for Discussion

1. What secondary data sources would be useful? What types of questions might be answered by each?
2. Identify one piece of information from the library that would be helpful and relevant. How did you locate it?
3. What other mechanisms would you use to gather information?



## CASE 5-2

### Dell in Latin America?

Dell, which thrived while other PC makers stumbled in 1998, reported a 53 percent jump in profit and a 50 percent jump in revenue for its fiscal second quarter, which ended in July 1998. Unlike most of its rivals, Dell deals directly with customers and builds PCs only after receiving an order. However, all is not well for Dell. While Dell continues to blow away the competition and Wall Street with enormous increases in personal-computer sales, it is continually scrambling to bring in and train enough people to keep up with its orders.

The company's employment had grown 56 percent in 1997, to 20,800, and within a span of three months Dell added 225 people a week—about the same it added every six weeks in 1996. To manage this expansion Dell has aggressively recruited experienced outsiders and tried to standardize training of new employees. It has also created a culture where

managers are rewarded for seeing their divisions split into smaller units and their responsibilities cut back.

Incidentally, Dell Computer Corp. is expected to announce a major foray into Brazil, in a bid to boost its share of Latin America's fast-growing personal-computer market. Foreign companies with local production plants dominate Latin America's estimated \$6.5 billion personal-computer market. Compaq Computer Corp., International Business Machines Corp., Acer Inc., and Hewlett-Packard Co. together accounted for 42 percent of desktop and notebook sales in 1997, according to IDC Latin America, a market-research firm. Dell ranked ninth with 1.2 percent of the market. At the company's annual meeting in July 1998, Vice Chairman Morton Topfer said Dell aimed to open a plant in Latin America in 1999 and noted that Latin America is key to its international expansion. The company already operates regional production plants in Malaysia, Ireland, the United States, and China.

## Questions for Discussion

1. What are the issues concerning the Latin American market that Dell should address before it enters into Brazil?
2. What kind of information is needed to address the issues identified in question 1? What are the possible sources of the required information?
3. What are your recommendations to Dell regarding the steps for expanding its operations in Latin America?

Source: This case was prepared by V. Kumar and Rajkumar Venkatesan for the purpose of classroom discussion from "Dell to Build Plant to Boost Latin Presence," *Wall Street Journal*, August 18, 1998, and "Dell Scrambles to Find Enough Workers to Fuel Growth," *Wall Street Journal*, August 20, 1998.

## CASE 5-3

### Eddie Bauer: Strategize with Secondary Marketing Data

Eddie Bauer, Inc., is a leading international retail brand, offering casual lifestyle products for adults through its retailing concepts: Eddie Bauer and Eddie Bauer Home. Eddie Bauer products are for men and women who seek versatile, classically styled, high-quality merchandise

designed to meet a wide range of their apparel and home-furnishing needs. Since 1920, the company has evolved from a single store in Seattle to a multichannel, international company with more than 590 stores worldwide. In addition, Eddie Bauer has 110 million catalogs in circulation and an online website ([www.eddiebauer.com](http://www.eddiebauer.com)). The company operates stores in the United States and Canada, and has joint venture partnerships in Germany and Japan.



Eddie Bauer has long considered the location of stores as the key element for maximizing sales. However, the problem has been how to choose these prime locations. Until recently, the company relied on basic census information, such as income and number of households, when choosing locations for new stores. But recent demographic changes in the United States and Canada have made this task more complex.

One of the main objectives of Eddie Bauer's marketing team was to answer the following questions:

- *Who are our best prospects?* What are their demographics: age, income, occupation, education, household size, and more?
- *What are they like?* How would target customers like to spend their leisure time, what kinds of products do they purchase, what types of vehicles are they likely to drive, and what is their interest in and use of the latest technologies.
- *Where can I find them?* What are the right places to look—rural, urban, inner-city, small-town, or suburban communities? The next step is to figure out a way to get down to the blocks they live on.
- *How can I reach them?* How can customers be attracted into Eddie Bauer stores and what are their media habits: television, radio, newspapers, magazines, or the Internet?

So Eddie Bauer purchased Clarita's online geocoding and GIS mapping software, along with databases to provide precise knowledge for identifying ideal location. The first step was to identify potential areas of high retail expenditures. Information (household growth rate, number of housing units) about these locations along with consumer information (age, income level, household size, and education level) were collected using Clarita's demographics. Thus, for each proposed store location, Eddie Bauer's marketing team gathered detailed consumer information on the market and potential new locations relative to existing stores and competitors.

Moreover, Eddie Bauer's marketing team started to use Clarita's **Potential Rating Index Zip Markets (PRIZM)** geocoding system to evaluate existing sites and current customers. For example, they not only profiled the shoppers at its five best-performing retail outlets but also studied the branches that were not doing very well. The profile of the shoppers would help the marketing team identify the shared characteristics of customers who frequent Eddie Bauer Stores. This knowledge would be very helpful not only in deciding on new site locations, interior designs, and merchandising mix but also in developing the store concept. This detailed consumer information prepares Eddie Bauer to compete more efficiently in the ever-changing retail industry.

## Questions for Discussion

1. What demographic and geographic information should Eddie Bauer collect to select store locations?
2. What kind of information regarding the competitive environment of the market in which Eddie Bauer operates is needed when choosing store locations?
3. Suggest methods by which Eddie Bauer can conduct marketing research to identify the shared characteristics of those customers who frequent Eddie Bauer stores versus the characteristics of customers who frequent the stores of competitors at various locations.
4. Look at Clarita's website (<http://www.nielsen.com/us/en.html>) and try to find answers to the four questions of Eddie Bauer's marketing team: *Who are our best prospects? What are they like? Where can I find them? How can I reach them?*

Source: This case was prepared by the authors with the inputs from Eddie Bauer, Inc. ([www.eddiebauer.com](http://www.eddiebauer.com)) and Claritas, Inc. ([www.claritas.com](http://www.claritas.com)).

### CASE 6-1 Promotion of Rocket Soups

Soups provide an interesting case history through which to examine the impact of sales promotion. Soups are sold primarily through food stores and frequently are promoted by both the manufacturer and the retailer. This case is based on 40 weeks of scanner sales history in one city. Please answer all of the questions at the end of the case.

#### Background

Soups are purchased by over 75 percent of all households. On average, the time between purchases is around 40 days. Sales promotion, including features, displays, and price reductions, is extremely important in this category, with around 55 percent of annual category sales moving with some sort of sales promotion. Shelf-price reductions, when they are used, average about 30 percent.

The major competitors in this category are

Brands	Share
Rocket	19.7
Stellar	40.3
Tasty	13.4
Lovely	3.5
Happy	18.1
Smile	5.0

The data for this case were collected from grocery store scanner installations in one market area, and consist of

1. Weekly store sales by brand
2. Predominant price charged by brand by store
3. Occurrence of promotional activity by brand by store

The data have been summarized across all stores in the market on a weekly basis, for a total of 60 weeks. Table 6-3 is the week-by-week summary.

At the weekly level, Table 6-4 shows the data on the amount of volume moved by various promotions at various prices. However, since the stores in the market are of varying sizes, direct evaluation of promotional effects is difficult. Therefore, the sales effects are normalized (adjusting for store sizes statistically). Table 6-5 shows the normalized sales volume by promotional type. The commonly used methods for store-level scanner data are (1) brand volume per \$1,000,000 total all commodity volume spending, and (2) brand volume per 1,000 register checkouts.

During the time of data collection, some extremely “hot” promotional activity occurred as the result of a Rocket promotional program. Some retailers decided to use Rocket soup as a “loss leader” in addition to the manufacturer promotions, and combined both. These activities resulted in substantial variations in price, volume, and share of Rocket.

This case was prepared by V. Kumar for the purpose of classroom discussion. For similar cases, refer to J. C. Totten and M. P. Block, *Analyzing Sales Promotion*, Chicago: Dartnell Corp., 1994.

### Case Questions

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#### Question 1

According to Table 6-3, weeks 5, 12, 22, 23, 36, and 37 were highly important sales weeks for Rocket. Weeks 2, 8, and 31 were important sales weeks for the competition. If data on promotional activity are not known, its presence is usually inferred by abnormally high sales of the brand or category, a cut in price, or both. Reviewing these weeks, and nearby weeks, discuss the effects on Rocket and its competitors on

1. Total category volume
2. Total category dollar spending
3. Each other's volume (Rocket's and competitors')
4. Sales in the weeks following high volume movement

#### Question 2

Table 6-4 shows overall promotional activity. Sales during week 12 were at an average price near zero. This typically arises out of a retail promotion of the type: “Free box of Rocket given with total purchases of \$10.00 or more.” Table 6-5 shows sales levels adjusted for the percentage of stores in each class, and for their relative sizes. Discuss any difficulties you see in assessing the impact of the week 12 promotion on

1. Incremental volume to Rocket
2. Promotional volume borrowed from future sales

### Question 3

Using Table 6-5, plot only the nonpromoted sales versus the nonpromoted price. Discuss the probable percent impact on Rocket sales from a 10 percent increase or decrease in price.

### Question 4

Using Table 6-5, plot the relationship between sales on display only, and display-only price. What similarities and differences in sales levels and response to price do you see in comparing the display-only response to the nonpromotional response?

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## CASE 6-2

### Kerry Gold Products, Ltd.

In late May of 1996 the research manager for Kerry Gold Products met with the product manager for margarine to review the company's first experience with Nielsen scanner data. A year-long test in a single chain organization, which began in April 1995, had been completed recently.

The first purpose of their review was to interpret the findings. They decided to concentrate on the results of the first 18 weeks of the tests, which are summarized in Figure 6-4. The size of the bars represents the weekly unit sales for Kerry Gold brand and the three competing brands also sold by the chain organization. In addition to the weekly data there were summary data

on share of total sales for the first and second halves of the year. This distinction was important because Kerry Gold had spent relatively little on promotion in the second half of the year. Since Nielsen had full records of all sales, they were also able to examine their share of sales during weeks when no brands offered price-reduction promotions. These data are shown in the two right-hand columns in Table 6-6.

While reviewing these results, the research manager also was wondering whether scanner data would be useful for other grocery products sold by Kerry Gold. Many of them were as heavily promoted as margarine. Judgments on the desirability of consumer promotions for these products usually were based on a combination of store audit data plus periodic controlled experiments.

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## CASE 6-3

### Paradise Foods<sup>1</sup>

by Steven H. Star and  
Glen L. Urban

#### Introduction

Bill Horton sat alone in his office late Friday afternoon anxiously leafing through computer printouts, even

though he could recite their contents from memory. Horton was waiting for his boss, Bob Murphy, to report back the decision on a subject the marketing committee had been debating for more than four hours. The issue—whether Paradise Foods should authorize national rollout of a new product, Sweet Dream, to complement its established frozen specialty dessert, LaTreat. Horton was product manager for Sweet Dream, and Murphy was the group manager responsible for all new products in Paradise's dessert line.

"I'm glad you're sitting," Bob quipped uncomfortably as he entered Bill's office. "The news isn't good. The committee decided not to go ahead."

"I don't believe it," Bill protested, "I started to worry when the meeting dragged on, but I never

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<sup>1</sup>Steven H. Star is director of the marketing center at MIT's Sloan School of Management. Glen L. Urban is Dai-Ichi Kangyo Bank Professor of Management and deputy dean of the Sloan School. This case is reprinted with permission from *Harvard Business Review*, September–October 1988.

TABLE 6-3

## City Sales of Soup by Week (Price is Volume-Weighted Average)

Week	Rocket Volume	Rocket Dollars	Category Volume	Category Dollars	Rocket Price	Rocket Share	Competitive Volume
1	306	250	5,984	4,356	0.82	5.1	5,678
2	345	384	14,288	9,780	1.11	2.4	13,943
3	873	694	6,201	4,893	0.79	14.1	5,328
4	900	715	5,657	4,447	0.79	15.9	4,757
5	4,404	2,772	7,673	5,453	0.63	57.4	3,269
6	456	388	5,027	4,196	0.85	9.1	4,571
7	444	395	5,570	4,687	0.89	8.0	5,126
8	513	507	11,519	8,305	0.98	4.5	11,006
9	483	441	4,661	3,917	0.91	10.4	4,178
10	615	548	4,803	4,381	0.89	12.8	4,188
11	624	571	5,038	4,632	0.91	12.4	4,414
12	16,113	705	19,633	3,982	0.04	82.1	3,520
13	1,056	811	4,476	3,967	0.76	23.6	3,420
14	381	375	3,863	3,599	0.98	9.9	3,482
15	534	526	5,014	4,677	0.98	10.6	4,480
16	1,821	870	6,487	5,257	0.47	28.1	4,666
17	390	384	3,642	3,350	0.98	10.7	3,252
18	405	398	3,743	3,441	0.98	10.8	3,338
19	1,152	1,012	5,042	4,865	0.87	22.8	3,890
20	348	342	4,733	4,248	0.98	7.4	4,385
21	378	372	3,862	3,448	0.98	9.8	3,484
22	5,319	5,129	8,352	7,839	0.96	63.7	3,033
23	2,280	1,691	7,086	5,311	0.74	32.2	4,806
24	1,194	962	5,931	4,878	0.80	20.1	4,737
25	1,020	837	5,708	4,666	0.82	17.9	4,688
26	342	336	7,780	5,849	0.98	4.4	7,438
27	1,509	1,378	5,385	5,191	0.91	28.0	3,876
28	420	413	7,352	5,533	0.98	5.7	6,932
29	528	520	7,516	5,661	0.98	7.0	6,988
30	942	676	6,416	5,461	0.71	14.7	5,474
31	957	711	15,599	7,578	0.74	6.1	14,642
32	1,014	738	4,937	4,294	0.72	20.5	3,923
33	1,059	990	5,664	5,213	0.93	18.7	4,605
34	351	385	9,045	7,302	1.09	3.9	8,694
35	384	418	5,435	4,932	1.09	7.1	5,051
36	4,122	3,084	8,672	7,699	0.74	47.5	4,550
37	9,108	4,466	13,165	8,694	0.49	69.2	4,057
38	498	542	5,643	5,103	1.09	8.8	5,145
39	459	500	5,555	5,150	1.09	8.3	5,096
40	486	529	4,485	4,285	1.09	10.8	3,999



TABLE 6-4

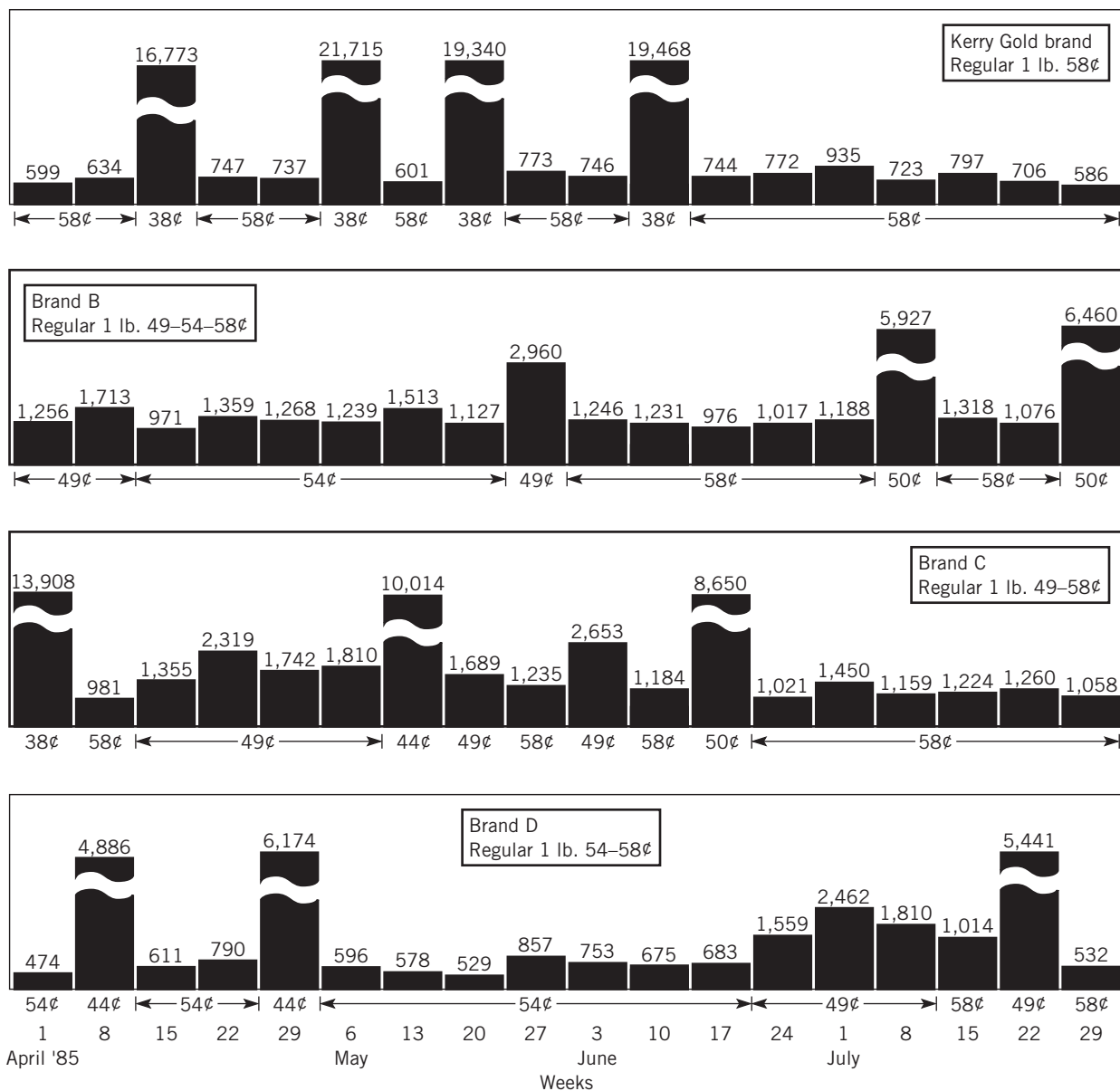
# City Sales of Soup by Week (Price is Volume-Weighted Average Sales by Promotional Type)

Week	Volume with No Promotion	Price with No Promotion	Volume with Display Only	Price with Display Only	Volume with Feature Only	Price with Feature Only	Volume with Feature and Display	Price with Feature and Display
1	306	0.82	0	.	0	.	0	.
2	345	1.11	0	.	0	.	0	.
3	477	0.75	396	0.85	0	.	0	.
4	420	0.75	480	0.84	0	.	0	.
5	222	0.69	0	.	0	.	4,182	0.63
6	399	0.83	57	0.99	0	.	0	.
7	375	0.87	69	0.99	0	.	0	.
8	471	0.98	42	1.07	0	.	0	.
9	405	0.90	78	0.99	0	.	0	.
10	486	0.87	129	0.99	0	.	0	.
11	537	0.90	87	0.99	0	.	0	.
12	486	0.79	102	0.85	0	.	15,525	0.02
13	384	0.75	0	.	0	.	672	0.78
14	381	0.99	0	.	0	.	0	.
15	534	0.99	0	.	0	.	0	.
16	267	0.87	153	0.98	0	.	1,401	0.35
17	390	0.99	0	.	0	.	0	.
18	405	0.98	0	.	0	.	0	.
19	315	0.81	672	0.89	60	0.98	105	0.98
20	348	0.99	0	.	0	.	0	.
21	378	0.98	0	.	0	.	0	.
22	201	0.69	0	.	0	.	5,118	0.98
23	0	.	702	0.86	1,578	0.69	0	.
24	819	0.86	375	0.69	0	.	0	.
25	366	0.74	654	0.86	0	.	0	.
26	252	0.98	90	0.99	0	.	0	.
27	117	0.99	288	0.99	585	0.89	519	0.88
28	327	0.98	93	0.99	0	.	0	.
29	309	0.98	219	0.99	0	.	0	.
30	588	0.74	354	0.69	0	.	0	.
31	450	0.73	507	0.75	0	.	0	.
32	333	0.69	288	0.69	195	0.79	198	0.79
33	555	0.87	504	1.01	0	.	0	.
34	303	1.10	48	1.12	0	.	0	.
35	384	1.09	0	.	0	.	0	.
36	132	0.89	0	.	0	.	3,990	0.74
37	0	.	2,409	0.74	0	.	6,699	0.40
38	498	1.09	0	.	0	.	0	.
39	459	1.09	0	.	0	.	0	.
40	486	1.09	0	.	0	.	0	.

TABLE 6-5

**City Sales of Soup by Week (Price is Volume-Weighted  
Average Normalized Volume Sales by Promotional Type)**

Week	Normalized Volume with No Promotion	Price with No Promotion	Normal Volume with Display Only	Price with Display Only	Normal Volume with Feature Only	Price with Feature Only	Normal Volume with Feature and Display	Price with Feature and Display
1	0.21	0.82	0.00	.	0.00	.	0.00	.
2	0.20	1.11	0.00	.	0.00	.	0.00	.
3	0.45	0.75	0.66	0.85	0.00	.	0.00	.
4	0.50	0.75	0.63	0.84	0.00	.	0.00	.
5	0.60	0.69	0.00	.	0.00	.	3.94	0.63
6	0.33	0.83	0.32	0.99	0.00	.	0.00	.
7	0.24	0.87	0.36	0.99	0.00	.	0.00	.
8	0.31	0.98	0.27	1.07	0.00	.	0.00	.
9	0.30	0.90	0.34	0.99	0.00	.	0.00	.
10	0.36	0.87	0.50	0.99	0.00	.	0.00	.
11	0.41	0.90	0.41	0.99	0.00	.	0.00	.
12	0.50	0.79	0.45	0.85	0.00	.	3.95	0.02
13	0.38	0.75	0.00	.	0.00	.	1.14	0.78
14	0.25	0.99	0.00	.	0.00	.	0.00	.
15	0.26	0.99	0.00	.	0.00	.	0.00	.
16	0.34	0.87	0.65	0.98	0.00	.	2.05	0.35
17	0.25	0.99	0.00	.	0.00	.	0.00	.
18	0.27	0.98	0.00	.	0.00	.	0.00	.
19	0.70	0.81	1.85	0.89	0.15	0.98	0.48	0.98
20	0.21	0.99	0.00	.	0.00	.	0.00	.
21	0.27	0.98	0.00	.	0.00	.	0.00	.
22	0.57	0.69	0.00	.	0.00	.	4.79	0.98
23	0.00	.	0.64	0.86	3.77	0.69	0.00	.
24	0.65	0.86	0.98	0.69	0.00	.	0.00	.
25	0.55	0.74	0.80	0.86	0.00	.	0.00	.
26	0.21	0.98	0.28	0.99	0.00	.	0.00	.
27	0.43	0.99	0.82	0.99	1.55	0.89	0.79	0.88
28	0.26	0.98	0.29	0.99	0.00	.	0.00	.
29	0.24	0.98	0.67	0.99	0.00	.	0.00	.
30	0.48	0.74	1.15	0.69	0.00	.	0.00	.
31	0.45	0.73	0.95	0.75	0.00	.	0.00	.
32	0.55	0.69	0.93	0.69	0.96	0.79	0.55	0.79
33	0.52	0.87	0.88	1.01	0.00	.	0.00	.
34	0.22	1.10	0.36	1.12	0.00	.	0.00	.
35	0.25	1.09	0.00	.	0.00	.	0.00	.
36	0.37	0.89	0.00	.	0.00	.	2.98	0.74
37	0.00	.	1.92	0.74	0.00	.	18.61	0.40
38	0.29	1.09	0.00	.	0.00	.	0.00	.
39	0.26	1.09	0.00	.	0.00	.	0.00	.
40	0.29	1.09	0.00	.	0.00	.	0.00	.



**FIGURE 6-4**  
Unit sales per week (and prevailing price for the brand during the week).

**TABLE 6-6**

Brand	Share of Total Sales (%)				Share of Sales in Nonpromotional Weeks (%)	
	1st ½ yr		2nd ½ yr		1st ½ yr	2nd ½ yr
Kerry Gold	39	(34)*	13	(7)	18.9	19.3
B	17	(8)	42	(35)	30.4	30.3
C	29	(13)	28	(18)	33.1	33.9
D	15	(11)	17	(12)	17.6	16.5
	(66)		100		100	100

\*Figures in parentheses are deal merchandise shares of market. In the first half of the year, 66 percent of total unit sales in the category were on deal.

thought they'd say no. Damn. Eighteen months down the drain."

"I know how you feel, but you have to understand where the committee was coming from. It was a real close call—as close as I can remember since I've had this job. But the more carefully they considered your tests results, the more it looked like the returns just weren't there."

"Not there? All they had to look at was Appendix B in my report—the data from Midland and Pittsfield: Sweet Dream got a 3 percent share after 26 weeks. A trial rate of 15 percent. A repurchase rate of 45 percent. If national performance were anywhere close to that, we'd have our launch costs back in 14 months. Who can argue with that?"

"I'm on your side here, but I only had one vote," Bob said defensively. "We both knew what Barbara's position was going to be—and you know how much weight she carries around here these days." Barbara Mayer was the Paradise group manager responsible for established dessert products. She became a "grouper" in 1985, after two enormously successful years as LaTreat's first product manager.

"And to be honest, it was tough to take issue with her," Bob continued. "What's the point of introducing Sweet Dream if you end up stealing share from LaTreat? In fact, Barbara used some of your data against us. She kept waving around Appendix C, griping that 75% of the people who tried Sweet Dream had bought LaTreat in the previous four weeks. And repurchase rates were highest among LaTreat heavy users. You know how the fourteenth floor feels about LaTreat. Barbara claims that adjusting for lost LaTreat sales means Sweet Dream doesn't recover its up-front costs for three years."

## LaTreat

Launched in 1983, LaTreat was the first "super premium" frozen dessert to enter national distribution. It consisted of 3.5 ounces of vanilla ice cream dipped in penuche fudge and covered with almonds. An individual bar sold for just under \$2 and a package of four was \$7. Unlike LaTreat, which came on a stick, Sweet Dream resembled an ice cream sandwich. It consisted of sweet-cream ice cream between two oversized chocolate chip cookies and coated with dark Belgian chocolate. Its price was comparable to LaTreat's.

Under Barbara Mayer, annual sales of LaTreat soon reached \$40 million, and it began making a significant contribution to dessert groups profits. It accounted for almost 5 percent of the market despite a price about 50 percent higher than standard frozen specialties. Lately, however, competition had stiffened. LaTreat faced tough challenges from three direct competitors as well as several parallel concepts (like Sweet Dream) at various stages of test marketing. The total frozen specialties market had grown fast enough to absorb these new entrants without reducing LaTreat sales, but revenues had been essentially flat through 1986 and 1987.

Bill understood the importance of LaTreat, but he was not the type to mince words. "You and I both know things are more complicated than Barbara would have people believe," he told Bob. "There wasn't the same cannibalization effect in Marion and Corvallis. And we never did a test in Midland and Pittsfield where Barbara's people were free to defend LaTreat. We might be able to have it both ways . . ."

Bob interrupted. "Bill, we could stay here all night on this. But what's the point? The committee's made its decision. You don't like it, I don't like it. But these aren't stupid people. It's hard to argue with the dessert group's batting average over the last five years. This may ring hollow right now, but you can't take this personally."

"That's easy for you to say," Bill sighed.

"You know how this company works," Bob reminded him. "We don't hold withdrawal of a new product against the manager if withdrawal is the right decision. Hell, it happened to me ten years ago with that dumb strawberry topping. It made sense to kill that product. And I was better off at the company for it. The fact is, the committee was impressed as hell with the research you did—although to be honest, you may have overwhelmed them. A 40-page report with 30 pages of appendixes. I had trouble wading through it all. But that doesn't matter. You did a good job, and the people who count know that."

"I appreciate the sentiment, but that's not why I think this is the wrong decision. Sweet Dream is a go on the merits."

"Go home, play some golf this weekend," Bob counseled. "Things won't seem so bleak on Monday."

Bill never made it to the country club. Instead, he spent the weekend worrying about his future at Paradise and puzzling over how the marketing committee could have reached its no-launch decision.

## Sweet Dream Proposal

Paradise Foods was a large, successful manufacturer of packaged foods and household products whose markets were becoming increasingly competitive. Bill believed that Paradise was vulnerable in this treacherous environment because of its failure to keep pace with technological change—in particular, the increasing sophistication of marketing research based on computer modeling, supermarket scanner data, and targetable cable television. Paradise certainly used these tools, but to Bill's way of thinking, top management didn't embrace them with the same enthusiasm as other companies.

When Bill became produce manager for Sweet Dream, he promised himself he would do a state-of-the-art research job. The plan was to compare the performance of Sweet Dream in two test markets exposed to different advertising and promotion strategies. The campaign in Midland, Texas, and Pittsfield, Massachusetts, struck an overtly self-indulgent tone—"Go Ahead, You Deserve It"—and used limited price

promotion to induce trial. The campaign in Marion, Indiana, and Corvallis, Oregon, emphasized superior quality—"Taste the Goodness"—and used promotion aggressively. Sunday newspapers in the two cities frequently carried 50-cents-off coupons, and Sweet Dream boxes included a 75-cent rebate voucher.

Bill used two computer-based research services—InfoScan and BehaviorScan—to evaluate Sweet Dream's performance and long-term potential.<sup>2</sup> InfoScan tracks product purchases on a national and local basis for the packaged-goods industry. It collects point-of-sale information on all bar-coded products sold in a representative sample of supermarkets and drugstores. It generates weekly data on volume, price, market share, the relationship between sales and promotional offers, and merchandising conditions. Bill subscribed to InfoScan to monitor competitive trends in the frozen specialties segment.

BehaviorScan is used in marketing tests to measure the effect of marketing strategies on product purchases. In a typical BehaviorScan test, one group of consumer panelists is exposed to certain variables (that is, print or television advertisements, coupons, free samples, in-store displays), while other participating consumers serve as a control group. Company analysts use supermarket scanner data on both groups of consumers (who present identification cards to store checkout clerks) to evaluate purchasing responses to marketing campaigns. A typical BehaviorScan test lasts about one year.

Bill Horton's research program had generated a stack of computer printouts several feet high. He had spent much of the spring trying to unravel the complex interactions between different advertising and promotion strategies for Sweet Dream, the various promotion deals Paradise was running on LaTreat, and the proliferation of other frozen specialties. Despite Bob's advice to relax, Bill spent Sunday afternoon in front of his home computer, massaging the data one last time.

### Competitive Analysis

On Monday, Bill arrived at his office a few minutes late. He was surprised to find Barbara Mayer waiting on him.

"Sorry to drop in on you first thing," she said, "but I wanted to let you know what a fantastic job you did on the Sweet Dream test. I'm sure you were disappointed with the committee's decision, and in a way I was too. It would have been great to work together on the rollout. But the data were pretty clear. We didn't have a choice."

"Well, I thought the data were clear too—but in the opposite direction."

"Come on, Bill, you can understand the logic of the decision. The Midland and Pittsfield numbers were fine, but they were coming at the expense of LaTreat. There wasn't so much cannibalization in Marion and

Corvallis, but the Sweet Dream numbers weren't as good either. Trial was acceptable, but repurchase was low. We might make money, but we'd never meet the hurdle rate. Every so often a product just falls between two stools."

"So we'll do more tests," Bill countered. "We can play with the positioning in Marion and Corvallis. Or we can start from scratch somewhere else. I can have us wired to go in three weeks."

"We've already taken 18 months on Sweet Dream," Barbara said. "The committee felt it was time to try new concepts. I don't think that's so unreasonable."

"You're forgetting two things," Bill replied. "First, with freezer space as tight as it is, the longer it takes to come up with another product, the harder the stores are going to squeeze us. Second, other people are going to find out how well Sweet Dream did in Midland and Pittsfield. We're the only ones who get the BehaviorScan numbers, but you know the competition is monitoring our tests. What do you think Weston & Williams is going to do when it sees the results? It'll have a Sweet Dream clone out in a few months if we don't launch."

Weston & Williams (W & W) was a leading supplier of household products that was diversifying into foods, including desserts. It had a reputation as a conservative company that insisted on exhaustive prelaunch research. But the trade press recently had reported on W & W's decision to rush Pounce—a combination detergent, colorfast bleach, and fabric softener—to the market on the basis of very preliminary tests and data from a competitor's test markets. W & W had thus become the first national entrant in the "maxiwash" category.

"Bob made that argument Friday," Barbara said. "But you can guess how far he got. The guys upstairs have a tough enough time taking our own computer data seriously. They don't buy the idea that someone else is going to jump into the market based on our tests. Plus, that would be a huge risk. Pounce may have given Weston & Williams all the gray hair they can stand for a few years."

"From what I can tell, Barbara, the only issue that counted was cannibalization." Bill's voice betrayed a rekindled sense of frustration. "I understand you want to protect LaTreat. I understand the company wants to protect LaTreat. But it seems to me we're protecting a product that is getting tired."

"What are you talking about?" Barbara objected. "Profits aren't growing as fast as they used to, but they're not dropping either. LaTreat is solid."

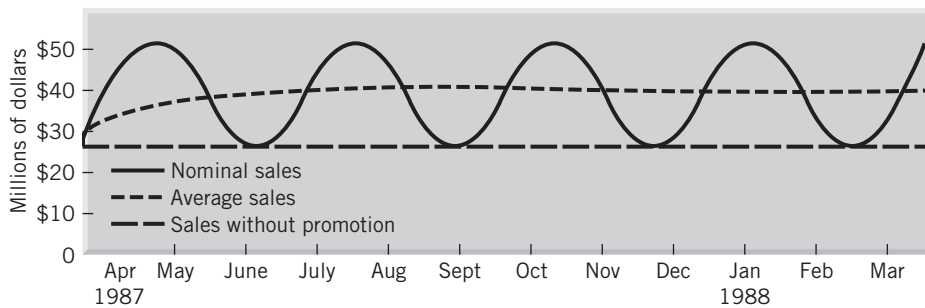
### Sales Analysis

"Come on, Barbara. Your people have really been promoting it in the last two quarters—shifting money out of print and TV and into coupons and rebates. Total spending hasn't changed, so profits are OK. But LaTreat has gotten hooked on promotion. And all the wrong

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<sup>2</sup>InfoScan and BehaviorScan are actual services offered by Information Resources, Inc.





**FIGURE 6-5**  
LaTreat sales with and without promotions (seasonally adjusted figures presented on an annualized basis).

kinds of promotion. You've got people accelerating future purchases and price-sensitive types jumping in whenever LaTreat goes on sale. Who needs that?"

"Where are you getting this stuff?" Barbara demanded, "I didn't see it in your report."

"I spent the weekend running some more numbers," Bill replied. "Take a look at this."

Bill punched a few buttons on his computer keyboard and called up a series of graphs. The first documented the growing percentage of LaTreat sales connected with promotional offers. A second graph disaggregated LaTreat's promotion-related sales by four buyer categories Bill had created from BehaviorScan data. "Loyalists" were longtime customers who increased their purchases in response to a deal. "Trial users" bought LaTreat for the first time because of the promotion and seemed to be turning into loyal customers. "Accelerators" were longtime customers who used coupons or rebates to stock up on product they would have bought anyway. "Switch-on-deal" customers were nonusers who bought LaTreat when there were promotions but demonstrated little long-term loyalty. Bill's graph documented that a majority of LaTreat's coupon

redeemers fell into the last two categories, with "loyalists" accounting for a shrinking percentage of sales.

Finally, Bill called up his ultimate evidence—a graph that adjusted LaTreat sales to eliminate the effect of promotions. (See Figure 6-5.)

"I'm amazed you spent your weekend doing this," Barbara said, "but I'm glad you did. It'll help us think through future marketing strategies for LaTreat. But it doesn't change what the committee decided. It's time to move on."

"I'm not so sure," Bill replied. "I hope you don't mind, but I think I should show these data to Bob. Maybe he can convince the committee to reconsider. After all, if LaTreat is weakening, its going to show up in your profit figures sooner or later."

"Data don't make decisions, Bill, people do. And the people on the marketing committee have been in the industry a lot longer than you. Their gut tells them things your computer can't. Besides, you and I both know that when you collect this much data, you can make it show just about anything. Go ahead and talk to Bob, but I'm sure he'll see things the same way I do."

## Assignment

1. What (if any) issues did Bill Horton overlook in evaluating Sweet Dream?
2. Do you think Sweet Dream should be launched? Give the rationale for your answer. Is there any

additional research you feel should be conducted before a final decision on the Sweet Dream launch is made?



### CASE 7-1 Caring Children's Hospital

Mary Beth, President of Caring Children's Hospitals (CCH), always looked forward to New Years. New Years were meant for family reunions and holidays for her. But this New Year had something totally different in store for her. The previous year had not been good for the hospital revenues. The number of patients served by the hospital had gone down, and the costs of health care were rising. The balance sheet presented a very sorry picture to her. But there was a glimmer of hope in the gloomy balance sheet.

About two years ago, Mary had started a small division within CCH that provided health care for disabled children in their houses. This division resembled a home health-care facility, but Mary was wary about developing this division into a full-fledged home health-care organization within CCH. This division had been doing well for the past two years. It was the only division in CCH with a positive picture in the balance sheet. Mary decided to develop the home health-care division in the hospital to get around the problems facing the hospital's financial situation.

But there were a lot of issues to be addressed, such as the kind of expansion plan to adopt, the kind of services to be provided by the home health-care facility, the kind of insurance plans that the patients would be able to use, and the type of publicity to use. Mary decided to use the services of Innovative Marketing Consultants

(IMC), a top-notch local marketing consulting firm, for addressing these issues and suggesting an expansion plan. A meeting was set up with Dr. K, president of IMC, to discuss the issues involved and to explain the details of a home health-care program. Dr. K suggested using the Internet to analyze the scope for a new player in the industry, the trends in the industry, the common modes of payment available, the costs involved per patient, the profit margins possible, and the kinds of diseases requiring home health care. The Internet was selected for secondary data analysis because of its speed and availability of up-to-date information.

Dr. K used several search engines available in the Internet, such as Lycos, Infoseek, and AltaVista, to get a wide and varied coverage of the Internet. The information collected from the Internet suggested that the home health-care industry was booming and that pediatric home health care had a significant share in the market. The results also suggested that given a choice, people would prefer to receive the needed care in their homes. Also, the cost involved in serving patients at their houses was significantly less and it was fully covered by Medicare. Home health care was also found to be the fastest growing health-care segment in the nineties. The diagnoses most often referred to home health care were found to be favorable to CCH. These results formed the base for conducting primary research in the market. The use of the Internet allowed Dr. K to analyze a wide range of issues within a short time frame.

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### Questions for Discussion

1. Use the Internet to corroborate the findings of Dr. K.
2. Prepare a report based on the information that you have collected.
3. What are your recommendations to Mary, based on your findings?

The case was prepared by V. Kumar and Rajkumar Venkatesan for the purpose of classroom discussion.

### CASE 8-1

#### Mountain Bell Telephone Company

Jim Martin, marketing research manager for Mountain Bell, studied the final research design for the hospital administrator study that had been prepared by Industrial Surveys, a marketing research firm in Denver. He realized that he needed to formulate some recommendations with respect to some very specific questions. Should individual personal interviewers be used as suggested by Industrial Surveys, or should a series of one to six focus-group interviews be used instead? Was the questionnaire satisfactory? Should individual questions be added, deleted, or modified? Should the flow be changed? Exactly who should be sampled, and what should the sample size be?

##### Research Setting

About 20 field salespeople at Mountain Bell Telephone Company were involved in sales of communication equipment and services to the health-care industry. Because of job rotations and reorganizations, few salespeople had been in their present positions for more than three years. They were expected to determine customer needs and problems and to design responsive communication systems. In addition, there was a health-care industry manager, Andy Smyth, who had overall responsibility for the health-care industry marketing effort at Mountain Bell, although none of the sales personnel reported directly to him. He prepared a marketing action plan and worked to see that it was implemented. The marketing action plan covered:

- Sales objective by product and by segment
- Sales training programs
- Development of sales support materials and information

Andy Smyth was appointed only recently to his current position, although he had worked in the health-care market for several years while with the Eastern Bell Telephone Company. Thus, he did have some first-hand knowledge of customer concerns. Further, there was an AT&T marketing plan for the health-care industry which included an industry profile; however, it lacked the detailed information needed, especially at the local level. It also lacked current information as to competitive products and strategies.

Mountain Bell had long been a quasi-monopoly, but during the past decade had seen vigorous aggressive

competitors appear. Andy Smyth thought it imperative to learn exactly what competitive products were making inroads, in what applications, and the basis of their competitive appeal. He also felt the need for some objective in-depth information as to how major Mountain Bell customers in the health-care industry perceived the company's product line and its sales force. He hypothesized that the sales force was generally weak in terms of understanding customers' communication needs and problems. He felt that such information would be particularly helpful in understanding customers' concerns and in developing an effective sales training program. He hoped that the end result would be to make the sales force more customer oriented and to increase revenues from the health-care market.

While at Eastern Bell, Andy Smyth had initiated a mail survey of hospital administrators that had been of some value. Several months before, he had approached Jim Martin with the idea of doing something similar at Mountain. Jim's reaction was that the questionnaire previously used was too general (that is one question was: What basic issues confront the health-care area?) or too difficult to answer (How much do you budget monthly for telecommunications equipment or service? 0–\$1,000; \$1,000–\$2,000; etc.) Further, he felt that in-depth individual interviews would be more fruitful. Thus, he contacted Industrial Surveys, which, after considerable discussion with both Jim and Andy, created the research design. They were guided by the following research objectives:

1. What are the awareness and usage levels of competitive telecommunications products by the hospital?
2. What is the perception of Mountain Bell's sales force capabilities as compared to other telecommunications vendors?
3. What is the decision-making process as it pertains to the identification, selection, and purchase of telecommunications equipment?
4. What concerns/problems impact most directly upon the hospital's (department's) daily operations?
5. What are the perceived deficiencies and suggestions for improvement of work/information flow?

##### Research Design

Research interviews will be conducted in seven Denver area hospitals with the hospital administrator and, where possible, with the financial officer and the telecommunications manager. A total of 14 interviews

are planned. Interviews will be held by appointment, and each respondent will be probed relative to those questions that are most appropriate for his or her position and relevant to the study's overall objectives. The cost will be from \$6,500 to \$8,500, depending on the time involved to complete the interviews. The questionnaire to be used follows.

A. Awareness and Usage of Competitive Telecommunications Equipment

1. What departments presently use non-Bell voice communications equipment (paging, intercom, message recording, etc.)? What were the main considerations in selecting this equipment?
2. What departments use non-Bell data terminals (CRTs)? What are the major functions/activities that this equipment is used for? What were the main considerations in selecting this equipment?
3. How do you view the capabilities of Bell System voice-communications equipment to meet your operations needs?
4. How do you view the capabilities of Bell System data terminals to meet your records- and information-retrieval needs?
5. What do you feel are Mountain Bell's main strengths and/or weaknesses in meeting your hospital's overall telecommunications needs?

B. Perceptions of the Mountain Bell Sales Force

1. What should a telecommunications specialist know about the hospital industry in order to adequately address your voice-communications and data-processing needs?
2. Have you ever worked with any Mountain Bell marketing people in terms of your communications needs? If so, how knowledgeable do you perceive the Mountain Bell sales force to be with respect to both the health-care industry and their telecommunications equipment? How do they compare to non-Bell vendors of such products?

C. Purchasing Decision

1. What is the standard procedure for selecting and authorizing a telecommunications purchase? Is this based primarily on the dollar amount involved or type of technology?
2. Who has the greatest input on the telecommunications decision (department manager, administrator, physicians, and so on)?
3. What are the most important considerations in evaluating a potential telecommunications purchase (equipment price, cost-savings potential, available budget, and so on)?

4. What supplier information is most important in facilitating the purchasing decision? How effective has the Mountain Bell sales force been in providing such information?

D. Specification of the Most Important Problems or Concerns Relating to Effective Hospital Management

1. What are the most important problems or concerns confronting you in managing the hospital?
2. What type of management data is required in order to deal effectively with these problems or concerns?
3. How are these data presently recorded, updated, and transmitted? How effective would you say your current information-retrieval system is?
4. Do you have any dollar amount specifically budgeted for data or telecommunications improvements in 2004–2005? What specific information or communication functions are you most interested in upgrading?

E. Achieving Maximum Utilization of Hospital Facilities

1. Do you experience any problems in obtaining accurate, up-to-date information on the availability of bed space, operating rooms, or lab services?
2. Do you see \_\_\_\_\_ hospitals as competing with other area hospitals or HMOs in the provision of health-care services? If so, with which hospitals? Do you have a marketing plan to deal with this situation?

F. Efficient Use of Labor Resources

1. How variable is the typical daily departmental workload, and what factors most influence this variance?
2. How do you document and forecast workload fluctuations? Is this done for each hospital department?
3. To what extent (if any) do you use outside consulting firms to work with you in improving the delivery of hospital services?

G. Reimbursement and Cash Flow

1. Which insurer is the primary provider of funds? How is reimbursement made by the major insurers?
2. What information do you need to verify the existence and type of insurance coverage when an individual is being processed for admission or outpatient hospital services? What, if any, problems are experienced in the verification and communication of insurance information?

Source: This case was prepared by D. Aaker and J. Seydel as a basis for class discussion.

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## CASE 8-2

### U.S. Department of Energy (A)

Judy Ryerson, the head of the windmill power section of the U.S. Department of Energy, was considering what types of qualitative marketing research would be useful to address a host of research questions.

The U.S. Department of Energy was formed to deal with the national energy problem. One of its goals was to encourage the development of a variety of energy sources, including the use of windmill power. One difficulty was that almost nothing was known about the current use of windmill power and the public reaction to it as a power source. Before developing windmill power programs, it seemed prudent to address several

research questions to obtain background information and to formulate testable hypotheses.

#### Current Use of Windmills in the United States

How many power-generating windmills are there? Who owns them? What power-generating performance is being achieved? What designs are being used? What applications are involved?

#### Public Reaction

What are the public attitudes to various power sources? How much premium would the public be willing to pay for windmill power sources, both in terms of money and in terms of "visual pollution?" What is the relative acceptance of six different windmill designs ranging from the "old Dutch windmill" design to an egg-beater design?

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## Assignment

Design one or more qualitative research designs to address the search questions and to develop hypotheses for future testing. If focus-group interviews are

considered, provide a set of questions to guide the moderator.



## CASE 8-3

### Acura

Acura was introduced into the U.S. luxury market in 1986 as a premium car at a bargain price, compared with European luxury imports. Given a \$20,000 price tag, it became the best-selling premium import brand. As long as it could underprice the competition, Acura's sales were steady. In 1992, however, European luxury brands such as Mercedes, BMW, and Audi started slashing their prices, and the value of the Japanese yen rose. Both factors combined to wipe out Acura's "premium car at a bargain price" advantage. Another blow came when archrivals Toyota Motor Corp. and Nissan Motor Corp. launched the Lexus and Infiniti, even more upscale brands, starting at \$35,000.

#### I. Campaign Time

Acura did not anticipate the resurgence of the European luxury brands. Acura is strong in quality, dependability, and value, but it does not perform well in the luxurious, expensive-looking, and prestige departments. However, as Acura discovered, customers

want performance plus status, prestige, comfort, and luxury. So far, Acura has struggled to justify prices and convince buyers that the \$40,000 maximum price on the Acura Legend will include those attributes.

In the desire to "retool its image," Acura replaced its performance-based ads with luxury ads, such as a campaign nicknamed "Chanel ads," featuring mansions with cobblestone driveways and a towel-draped woman getting a massage in a gazebo. The tag line reads, "Some things are worth the price." Competition has rebutted by claiming that their \$13,000 Altima was "worth far more than the price."

Other efforts by Acura to "retool" their image have included promotional tours with Cirque du Soleil. Buyers might be getting mixed signals. One-third of Acura's regional budget is allocated to dealerships, which typically run hard-sell rather than image ads. Acura has also struggled to convince dealers to upgrade their showrooms to fit the luxury image. The line's well-established brand names, Legend and Integra, will soon be replaced by bigger, more luxurious cars designed to compete with top-of-the-line, \$50,000-plus Lexus and Infiniti models. Equipped with a smaller engine, RL model Acura cars will sell for \$10,000 less.



## II. Issues

Luxury service and new luxury products will be required to win customers. Should Acura keep pouring dollars into the image campaign, or stick to performance and quality, its strengths? What do the consumers want? Design a format for a focus-group discussion to analyze this situation. (Hint: Consider three formats: exploratory, clinical,

experiencing. Will the prestige pitch work to rescue lagging sales?)

Source: This case is based on Larry Armstrong, "Acura: Stuck between Gears?," *Business Week*, October 2, 1995, pp. 136–137, and was prepared by V. Kumar for classroom discussion.

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## CASE 8-4

### Exploratory Research on the Lleyton Hewitt National Visa Card

#### The Player

Lleyton Hewitt, a top-class tennis player from Australia, stunned the world by defeating the reigning champion Pete Sampras to win the U.S. Open in 2001.

His inherent talent was obvious when he beat his older and more experienced opponents at the tender age of 8. He won his first professional title in 1998 when he was 17 years old. He decided to discontinue his studies to pursue a full-time career in tennis. His victories, over top-seeded players such as Patrick Rafter, Pete Sampras, Gustavo Kuerten, Alex Corretja, Magnus Norman, and many others during the Association of Tennis Professionals (ATP) tour, established him as the number-one tennis player in the world.

Unfortunately, however, Hewitt had to withdraw from the Hopman Cup in 2002 because he had chicken pox. The 2002 Australian Open was his comeback tournament after his recovery, but he was defeated by Alberto Martin in the early rounds. He attributed his early loss to the fact that he was still recovering from his illness and lacked energy.

#### The Lleyton Hewitt Credit Card

In January 2002, Hewitt agreed to be featured on a new Visa credit card offered by the National Australia Bank. With the Lleyton Hewitt National Visa Card, the bank expected to capitalize not only on the popularity of this young player but also on the popularity of Australia's premier tennis event, the Australian Open. One of the salient features of the card was a low introductory interest rate of 6.9 percent p.a for the first six months. Furthermore, cardholders could choose between the Standard National Visa Card and the Gold National Visa Card.

The extensive market research conducted by the bank prior to the release of the credit card revealed a strong demand for such a product. The research also indicated that the association of Lleyton Hewitt with the card would increase customer acquisition, card usage, and customer retention. Target customers were short-listed based on the information available about their demographics and psychographics.

The National Australia Bank, which over the previous 18 months had aggressively pursued a strategy of offering innovative products, believed that the Lleyton Hewitt National Visa Card was an example of an innovative lifestyle product.

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## Questions for Discussion

1. What types of demographic and psychographic information are required for this study? How would you obtain it?
2. Would the recent poor performance of Lleyton Hewitt affect the attitude of prospective and current credit card holders of the bank? How would the company carry out marketing research to study this issue?
3. Design the focus-group study and develop some key questions that the interviewers can use to elicit the level of demand for the credit card. How would the demand for the credit card be forecasted?
4. How would Hewitt's age, lifestyle, personal interests, and personality relate to those of the cardholders? How would you design a marketing research study to identify the demographic characteristics of the prospective cardholders and identify the future customer group?

This case was prepared by the authors with inputs from "Lleyton Hewitt Serves up a Winner for the National," press release, [http://www.nab.com.au/wps/wcm/connect/nab/nab/home/about\\_us/8/5/21/1/2](http://www.nab.com.au/wps/wcm/connect/nab/nab/home/about_us/8/5/21/1/2), January 10, 2002.

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## CASE 8-5

### Hamilton Beach Conducts Primary Research in Mexico and Europe

Hamilton Beach is well-known in the United States as a maker of small kitchen appliances like blenders, toasters, and mixers. However, the brand is not so familiar in other countries. When the firm decided to expand into Europe and Mexico with a new product line, they wanted to assess the brand awareness in these markets. Based on the assumption that the Mexican consumer is slightly more prone to buying U.S. products, the firm wanted to confirm that there was better brand awareness in Mexico.

A mixture of qualitative and quantitative research techniques were used in Mexico. Through the study, the firm was looking to determine what features were to be included in the product and the retail environment through which they were going to sell. They also wanted to find out the acceptance level for the brand and whether the features of the product fit in well with consumer needs. They found that the brand awareness was high in Mexico, and considering the proximity to the United States and the similar taste preferences due to exposure to the same types of products, they were optimistic in going ahead with the product launch. The initial results were promising and indicated success. Then Hamilton Beach changed its focus to the European market.

The research in Europe involved focus groups with the participants being asked to look at and touch the products. After the participants had an opportunity to examine the products, they were asked to come back and talk about them in general, spontaneous terms. The discussion showed that European consumers were much more focused on design than American consumers. They seemed to like colors, rounded shapes, and good-looking appliances, especially those they plan to leave out on their kitchen counters. European consumers also did not appear to be as interested in product features. For example, while an American consumer perceives an 18-speed blender as definitely added value, the European consumer seemed to perceive it as confusing and therefore as something negative.

The research also highlighted the differences in how Hamilton Beach product designers and consumers define a product line. To the designers, uniformity of things like the color of knobs on the appliances and the fonts used in the instructions make a group of products into a product line. But European consumers felt product attributes like color and shape defined a product line. Hamilton Beach decided to change the whole European line to suit the consumer preferences and go back and do the same kind of research, before launching the product on a large scale.

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## Questions for Discussion

1. Do you think the focus group research conducted in Europe was representative of the population in terms of:
  - Brand awareness and acceptance
  - Desired product features
  - Distribution channels
2. As a market research analyst, is there an alternate way to design the research process in Europe to address the issues?

Source: Adapted with permission from Joseph Rydholm, "Seeking the Right Mix," November 2001, <http://www.quirks.com/articles/a2001/20011105.aspx?searchID=218469119&sort=9>

### CASE 9-1 Essex Markets

Essex Markets was a chain of supermarkets in a medium-sized California city. For six years it had provided its customers with unit pricing of grocery products. The unit prices were provided in the form of shelf tags that showed the price of the item and the unit price (the price per ounce, for example). The program was costly. The tags had to be prepared and updated. Further, because they tended to become dislodged or moved, considerable effort was required to make sure that they were current and in place.

A study was proposed to evaluate unit pricing. Among the research questions in the study were the following:

- What percentage of shoppers was aware of unit pricing?

- What percentage of shoppers used unit pricing?
- With what frequency was unit pricing in use?
- What types of shoppers used unit pricing?
- For what product classes was it used most frequently?
- Was it used to compare package sizes and brands or to evaluate store-controlled labels?

It was determined that a five-page questionnaire completed by around 1,000 shoppers would be needed. The questionnaire could be completed in the store in about 15 minutes, or the respondent could be asked to complete it at home and mail it in.

Source: Prepared by Bruce McElroy and David A. Aaker as a basis for class discussion.

### Questions for Discussion

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Specify how the respondents should be approached in the store. Write out the exact introductory remarks that you would use. Should the interview be in the store, or should the questionnaire be self-administered at home

and mailed in, or should some other strategy be employed? If a self-administered questionnaire is used, write an introduction to it. What could be done to encourage a high response rate?

### CASE 9-2 More Ethical Dilemmas in Marketing Research

The following scenarios are similar to those you saw in Chapter 1, but bear directly on the rights of respondents in a research study. As before, your assignment is to decide what action to take in each instance. Be prepared to justify your decision.

1. Your company is supervising a study of restaurants conducted for the Department of Corporate and Consumer Affairs. The data, which have already been collected, included specific buying information and prices paid. Respondent organizations have been promised confidentiality. The ministry demands that all responses be identified by business name. Their rationale is that they plan to repeat the study and wish to limit sampling error by returning to the same respondents. Open bidding requires that the government maintain control of the sample.  
What action would you take?

2. You are a project director on a study funded by a somewhat unpopular federal policing agency. The study is on marijuana use among young people in a community and its relationship, if any, to crime. You will be using a structured questionnaire to gather data for the agency on marijuana use and criminal activities. You believe that if you reveal the name of the funding agency and/or the actual purposes of the study to respondents, you will seriously depress response rates and thereby increase nonresponse bias.  
What information would you disclose to respondents?
3. You are employed by a market research company. A manufacturer of female clothing has retained your firm to conduct a study for them. The manufacturer wants you to know something about how women choose clothing, such as blouses and sweaters. The manufacturer wants to conduct group interviews, supplemented by a session which would be devoted to observing the women trying on clothing, in order to discover which types of garments are chosen first, how thoroughly they touch

and examine the clothing, and whether they look for and read a label or price tag. The client suggests that the observations be performed unobtrusively by female observers at a local department store, via a one-way mirror. One of your associates argues that this would constitute an invasion of privacy.

What action would you take?

4. You are the market research director in a manufacturing company. The project director requests permission to use ultraviolet ink in precoding

questionnaires on a mail survey. Although the accompanying letter refers to a confidential survey, the project director needs to be able to identify respondents to permit adequate cross-tabulation of the data and to save on postage costs if a second mailing is required.

What action would you take?

Source: Provided with the permission of Professor Charles Weinberg, University of British Columbia.

## CHAPTER 10—CASE

### CASE 10-1 Roland Development Corp.

Roland Development was a leading builder of homes in the western United States. Its emphasis was on condominiums and ownhouses, which were forecast to have an attractive future in these markets. These housing types lent themselves to standardization and cost-reduction possibilities. Further, rising land costs were causing the share of single-family detached houses to decline significantly. Meanwhile, the share of market for single-family attached houses (houses with common walls, floors, or roofs) was expected to double in the next five years. Roland was well positioned to exploit these trends by following a strategy that differed from competition in three areas:

- **Market segmentation.** Roland typically segmented the market more finely than other home builders, and then designed homes to meet the specific needs of these groups.
- **Direct selling.** Shoppers in some department stores could find full-scale, fully furnished Roland homes on display.
- **Low prices for a complete housing package** (including all the furnishings and necessary financing).

The company had begun to expand its limited line of condominiums and townhouses to provide design and square-footage combinations that would appeal to higher-income households. The management was especially pleased with the elegance, convenience, and durability of the four new models they were planning to launch. Several problems remained to be solved. The first was the identification of a creative strategy that would position the new models and attract the largest number of purchases. That is, the company wanted to know what main ideas and

themes should be used in the advertising of the new models. Another problem was to identify those segments of the market with the highest probability of purchasing the new models. The company asked the YKG Group, a large national research firm, to submit a written proposal for research which would provide Roland's management with information useful in solving these two problems. Their proposal is summarized below.

#### Research Proposal

The recommended research design would use a consumer panel and employ both telephone interviews and mail questionnaires. The research firm felt that the needed information could be obtained only from that very small proportion of the population who might buy such a home. Each of several different market segments would be studied to determine how they positioned the new models in relation to competing homes already on the market. The likelihood of purchasing a Roland model would also be determined during the study for each of the three market segments and also for each of several different advertising themes. This information would help Roland identify the most promising market segments for the new models, as well as the creative advertising strategy that would most appeal to them.

The proposed research design consisted of three phases: (1) The members of a large consumer mail panel would be screened to locate qualified prospects for the new models; (2) a relatively small sample of qualified prospects would be interviewed "in depth" to identify possible advertising themes; and (3) a large sample of qualified respondents would be surveyed by mail to test their response to alternative creative strategies.

*Phase 1.* The YKG Group maintained a bank of over 200,000 families who agreed to cooperate in research projects undertaken by the firm. Considerable information

existed about each family, including geographic location, occupation and age of male and female heads of family, total family income, presence and age of children, and so on. Roland managers felt that the four new models would most likely appeal to middle- and upper-income families of size two, three, or four, with a house-hold head 30 years of age or over. For this reason, the first phase of the proposed research involved mailing a short questionnaire to all panel members with those characteristics. The questionnaire asked panel members to indicate the likelihood of their purchasing a home in the next two to three years and also to report their attitude toward buying a townhouse or condominium.

It was expected that this screening process would locate some 3,000 to 5,000 families who would be prospects to buy the new models over the next few years. To be considered a prospect, a family had to report being likely to purchase a home in the next two to three years, as well as having a favorable attitude toward a condominium or townhouse. Among these prospects, three market segments would be identified. A high-income family would be a "very good" prospect if it was "very likely" to buy a home; a medium-income family would be a "good" prospect if it was "very likely" to buy a new home; and a high-income family would be a "fair" prospect if it was "somewhat" likely to buy a new home. All other responses were considered to indicate nonprospects.

*Phase 2.* In this phase about 200 qualified prospects would be interviewed using a combination of telephone and mail. These families would be mailed pictures, specifications, and line drawings of the company's new models of condos and townhouses, although they would not be identified by the Roland name. The line drawings would include front and rear views of each unit's exterior as well as sketches of each room. The specifications would include the number of square feet, wall thickness, heating and cooling equipment capacities, appliance brands and models, slab thickness, type of roof covering, and other features.

After reviewing these materials, respondents' reactions and impressions would be obtained through telephone interviews using open-ended questions. Interviewers would be told that the objective was to obtain qualitative data useful for ascertaining how potential buyers perceived the new models with respect to appearance, comfort, elegance, convenience, durability, ease and economy of maintenance, and other criteria. Interviewers would be instructed to record verbatim

responses and were told that it was very important to do so because none of the responses would be tabulated or analyzed statistically. Responses to the open questions would then be studied to identify four or five ideas of themes that might be considered for use as creative strategies in advertising the new models.

*Phase 3.* This phase would be undertaken after four of the best advertising themes had been identified. Some 2,400 families would be selected from the list of prospects obtained from Phase 1—approximately 800 "very good" prospects, 800 "good" prospects, and 800 "fair" prospects.

All of the families in each of the three market segments would be sent pictures, line drawings, and specifications (including prices) of the new Roland models as well as those of major competing models, all identified by brand name. Each of these three groups of prospects would then be randomly divided into four subsamples of 200, each of which would receive one, and only one, of the four advertising themes identified for the new models. Thus, the study design would consist of three samples of 800 families each. In turn, each sample would be broken into four subsamples, each of which would receive a different advertising theme.

*Analysis.* The effect of each advertising theme on each prospect segment would be evaluated on three measures: the degree to which it (1) resulted in the new line being rated as "most appealing," (2) led respondents to request further information about the company's products, and (3) led respondents to indicate that they would be most likely to select one of the company's homes if they were to make such a purchase in the near future. For each advertising theme-prospect segment combination the research would yield three percentages. For example, for theme #1 and the "very good" prospects, the research might show that 38 percent of the respondents found a model in the new line "most appealing" among all the models reviewed; that 26 percent requested further information about the Roland models; and that 17 percent indicated that they "most likely would purchase" one of the new Roland models. By comparing these three percentages for each advertising theme-prospect segment combination, it would be possible to identify the most promising combinations. These results could be weighed by the relative size of each prospect segment to decide which creative strategy would be most effective in generating sales interest in the new models.

## Questions for Discussion

1. Would you recommend that Roland accept the YKG Group proposal?
2. If yes, what conclusions can be drawn from the data in Phase 3 of the research?
3. If the proposal is not accepted, what alternative designs should be considered?



CASE 11-1  
National Kitchens

For several years the management of National Kitchens, a diversified packaged-foods manufacturer, had been watching the rapid growth in sales of microwave ovens. They were particularly interested in the prospects for ready-to-eat soup in glass jars. The attraction of glass packaging was that the soup could be heated in a microwave oven in its original container. However, a single-serving, ready-to-eat soup in a glass jar was expected to cost \$1.10 as compared to \$0.90 for a comparable canned soup. While the price premium for glass was thought to be excessive, there were some new data on the acceptability of this price premium that had just been provided by a glass manufacturer.

The Research Study

The glass manufacturer had designed a brief questionnaire to evaluate consumer attitudes to glass packaging for a variety of microwave-oven cooking jobs. This questionnaire was mailed to 600 names obtained from the warranty cards returned to one microwave oven manufacturer. The results had just been tabulated and were being shown to National Kitchens.

The questionnaire obtained information on microwave usage. Two key questions addressed the issue of ready-to-eat soup in glass directly:

15. Would you purchase ready-to-eat soup in a single-serving container (approximately 10 ounces) that could be put directly into your microwave oven and poured into a bowl after heating? Assume the same price per serving as canned soup.
- ☐ Yes About how many individual servings per month? \_\_\_\_\_
- ☐ No Why not? \_\_\_\_\_
16. Please review question 15 and indicate below whether or not you would be willing to pay 20 cents more per individual serving for the product.
- ☐ Yes
- ☐ No

Of the 600 questionnaires, 312 were returned. The responses to questions 15 and 16 that related to soup in glass are summarized in Table 11-4.

TABLE 11-4  
Summary of Question Responses

Number of servings per month	Q. 15: No. of responses	Q. 16: No. responding that they would pay 20 cents more per serving
0 ("No")	103	185 = would not pay 20 cents more
2	12	7
3	5	3
4	26	19
5	9	6
6-10	31	14
11-15	19	9
16-20	56	38
21-30	11	9
31-40	17	8
41-50	14	10
50+	1	1

Questions for Discussion

1. What have you learned about the potential market for soup in glass jars?
2. What else would you like to know?
3. How else would you assess people's attitudes toward this concept?

### CASE 12-1 Wine Horizons

Wine Horizons was a medium-sized New York State winery that emphasized sparkling wines. The company was not known to the public as a producer of good-quality domestic champagne because all of their output was sold to well-known hotels and restaurants, which put their own labels on the bottles. However, their still (nonsparkling) wines were sold under the Wine Horizons label and were moderately well known.

The management of the company had been planning for some time to launch a line of champagnes under their own brand name. They were seriously considering whether the launch should be based on a packaging innovation. The specific proposal was to package their champagne in six-packs of 7-ounce bottles in an easy-to-carry container, at a retail price of approximately \$9.00. The 7-ounce quantity was chosen because it was the equivalent of two average-sized champagne glasses, thus making one bottle a convenient serving for one or two people. This size and price were expected to make the champagne an attractive alternative to imported beers in a variety of social situations.

Before a decision could be made, the management team had to be satisfied that there was an adequate market for the new packaging. They also wanted to know the occasions during which the target market would be likely to use the product, and whether these people would expect to find it in the imported beer or wine section of their retail outlet. To answer these questions, the firm Ritchey and Associates was retained to conduct a market study. A meeting to review their attitude questionnaire was just beginning.

#### Developments in the Wine Industry

The wine industry had enjoyed significant growth in recent years. The growth of white wines had been especially strong, but sparkling wines had also experienced an upward trend. Champagne sales had grown, but less than sparkling wines in general. The reason for the increased popularity of white wines was not known, but many in the industry believed it was due to a general trend toward “lightness” on the part of consumers, as reflected in their increased use of light beers, light wine, bottled mineral water, health foods, and low-tar

cigarettes. Whatever the reason, wine was being chosen more frequently as a beverage alternative to beer and liquor in various formal and informal social situations. It was also believed that champagne was not sharing in wine’s growth because of the difficulty in keeping champagne fresh after the bottle was opened—a large, opened bottle of champagne would lose all its carbonation in a few hours and “go flat.”

Two wineries had recently begun test-marketing wine in small packages. One winery was offering chablis, rosé, and burgundy in six-packs of cans, with each can containing six ounces of wine. Another winery was test-marketing chablis in six-packs of 6.5-ounce bottles. The new packaging seemed to be selling reasonably well in test areas, and retailers reportedly had a favorable attitude toward the new packaging. Compared with “single” small bottles or cans of wine—which were considered a nuisance—retailers felt that the six-packs were more profitable and more convenient to stack and display.

#### The Research Study

The objectives of the study were to (1) measure consumers’ acceptance of wine in six-packs, (2) identify the type of person who was a potential purchaser and user of champagne in six-packs, (3) determine where in the store he or she would expect to find such champagne, and (4) determine the size of the potential market. The sample would be champagne drinkers who were 21 years of age or older. Also, the research would be limited to markets where the six-packs of wine were already being tested. It was further decided that the data would be collected with personal interviews using a shopping mall intercept method. This would permit the interviewer to show a picture of the proposed six-pack and to use cards to list answer categories in complex questions. Only malls that contained liquor stores would be selected. The interviewers would be located in the vicinity of the liquor store and would attempt to interview adults leaving the stores.

A six-part questionnaire (see Marketing Research in Action 12-5) was designed to obtain the desired information. The major issues to be resolved were whether this questionnaire and the mall intercept design would identify potential users and yield a valid estimate of the potential market for the six-packs.

### Questions for Discussion

1. Will the proposed questionnaire and research design achieve the research objectives?
2. What alternative questions could be used to assess attitudes and intentions-to-buy? Which approach would yield the most valid responses?

Hello! My name is \_\_\_\_\_. I'm an interviewer with the marketing research firm of Ritchey and Associates, and we are conducting a study concerned with certain alcoholic beverages. Would you please take a few minutes to answer some questions? I assure you that your answers will be kept *completely confidential*.

1. Are you 21 years of age or older? (ASK ONLY IF NECESSARY)  
☐ Yes ☐ No (TERMINATE)
  2. Do you drink any alcoholic beverages?  
☐ Yes ☐ No (TERMINATE)
  3. What different kinds of alcoholic beverages do you drink?  
☐ Beer ☐ Liquor (any kind)  
☐ Wine ☐ Other  
☐ Champagne (to Q5)
  4. Do you drink champagne?  
☐ Yes ☐ No (TERMINATE)
  5. About how often do you drink champagne? (CLARIFY RESPONSE IF NECESSARY)  
☐ Once a week or more often ☐ About once in 2–3 months  
☐ About twice a month ☐ About twice a year  
☐ About once a month ☐ About once a year  
☐ DK
  6. On what types of occasions do you drink champagne?  
☐ Dinner for two ☐ Picnics  
☐ Small dinner party ☐ After athletic activities  
☐ Parties ☐ Just relaxing  
☐ Special holidays ☐ Other (specify) \_\_\_\_  
☐ Dinner
  7. Do you consider champagne to be an appropriate beverage to serve at informal occasions, or is it only for formal occasions?  
☐ Appropriate for informal occasions  
☐ Only for formal occasions ☐ For both occasions
- EXPLAIN: I'm now going to ask you some questions about wine, not champagne. These are questions about some new packaging that has recently been used by some brands of wine.
8. Are you aware that some wine is now being sold in packages consisting of six small cans and bottles, each containing about 6 ounces?  
☐ Yes ☐ No (to Q10) ☐ DK (to Q10)
  9. Have you ever purchased wine sold in such packaging or drank wine from one of these small containers?  
☐ Purchased ☐ Both  
☐ Drank ☐ Neither
  10. Do you think it's a good idea to sell wine in packages consisting of six small cans or bottles—that is, are you in favor of it?  
☐ A good idea, in favor of ☐ Indifferent (to Q12)  
☐ Not a good idea ☐ Undecided (to Q12)
  11. Why?
- EXPLAIN: Wine Horizons is one of the largest private-label bottlers of champagnes in the United States. For example, it supplies well-known hotel chains and restaurants with their own brand of champagne. Wine Horizons is planning to market this package (SHOW PICTURE) of six small bottles of champagne.
12. Do you think it's a good idea to sell champagne in packages consisting of six small bottles—that is, are you in favor of it?  
☐ A good idea, in favor of (to Q14) ☐ Indifferent (to Q14)  
☐ Not a good idea ☐ Undecided (to Q14)
  13. Why not?
  14. Would you consider purchasing such a package of champagne at the retail price of \$9.00?  
☐ Yes (to Q16) ☐ No  
☐ Maybe, possibly (to Q16) ☐ DK

15. Why not?
16. For what kinds of occasions would you use these small bottles of champagne?
 

<input type="checkbox"/> Dinner for two	<input type="checkbox"/> Picnics
<input type="checkbox"/> Small dinner party	<input type="checkbox"/> After athletic activities
<input type="checkbox"/> Parties	<input type="checkbox"/> Just relaxing
<input type="checkbox"/> Special holidays	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Dinner	
17. Would you use them for any of the occasions shown on this list? (SHOW CARD)
 

<input type="checkbox"/> Dinner for two	<input type="checkbox"/> Picnics
<input type="checkbox"/> Small dinner party	<input type="checkbox"/> After athletic activities
<input type="checkbox"/> Parties	<input type="checkbox"/> Just relaxing
<input type="checkbox"/> Special holidays	
<input type="checkbox"/> Dinner	
18. In what types of retail stores would you expect to find this product being sold?
 

<input type="checkbox"/> Liquor stores	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Supermarkets	
19. In what section of the store would you expect to find this package of champagne, that is, what other products would you expect to find alongside it?
 

<input type="checkbox"/> Other champagnes	<input type="checkbox"/> Beer
<input type="checkbox"/> Wine	<input type="checkbox"/> Other (specify) _____

## CASE 12-2

### Smith's Clothing (A)

John Simpson, the head of Simpson Research, was attempting to design a marketing research study that would address the research questions posed by Jim Andrews, the president of Smith's Clothing, during their morning meeting. The research questions seemed rather well defined:

1. Which women's clothing stores compete with Smith's?
2. What is the image of Smith's, and how does this image compare with that of its competitors? In other words, how is Smith's positioned with respect to its competitors?
3. Who is the Smith customer and how does she differ from that of Smith's competitors?

Although no final judgment had been made, Andrews was leaning toward an in-home, self-administered questionnaire. He was not certain, however, whether a questionnaire could be developed that would be responsive to the research questions. The population of interest was operationally defined to be those women whose family income exceeded the median income. Simpson's immediate task was to draft a questionnaire and to develop a tentative sampling plan.

Smith's was a six-store chain of women's clothing stores located in Bayview, a large, growing city in the southwestern United States. The chain had provided fine clothing for the upper class of Bayview for over 40 years. Twenty years previously, Smith's had opened its first suburban store. Having closed its downtown store 10 years ago, it now had five suburban stores and one in a nearby community of 60,000 people. Smith's had avoided trendy

fashions over the years, in favor of classic, lasting designs. During the last 10 years a set of five or six aggressive, high-fashion retailers had expanded into or within Bayview. Thus, despite the fact that the market for fine women's clothes had expanded enormously during the past decade, the competition had grown much more intense.

Andrews was justifiably concerned about the performance of his stores. Profits at five of the six stores had fallen during each of the past four years. The sixth store had been opened only 18 months before and had not achieved its target growth rate. Although the chain was still profitable, if the existing trend continued it would soon be losing money.

This performance had stimulated Andrews to engage in serious reappraisal of the whole operation. In particular, he was reviewing the chain's rather conservative policy toward the product line, advertising, store decor, and store personnel. He felt that it might be time to consider stocking some trendy fashions and attempting to increase the store's appeal to women in their teens and twenties. A working hypothesis was that Smith's had a higher appeal relative to other stores to women over 40 and was less attractive to younger women. He realized that any such move was risky in that it would jeopardize the existing customer franchise without any guarantee that new customers would compensate. Before making any such move he felt that it was critical to learn exactly how Smith's was now positioned. He also felt that he needed a much more reliable fix on the current Smith customers in terms of their age, the stores in which they shop, their preferences, and their purchase profile. With such information he would be in a much better position to identify alternatives and evaluate them.

## Assignment

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Develop a research design including:

1. The type of survey to be employed
  2. A questionnaire
- 

### CASE 12-3 Compact Lemon

Ben Johnson, a marketing research staff member, has been asked to provide a quantitative estimate of the demand for a new product concept, tentatively called *Compact Lemon*. The concept involves a powerful spray cleaner with a lemon scent to be used to clean trash compactors. The product will involve a heavy-duty cleaner that will clean more easily than current competitors, which are not in a spray form, and that will provide the added benefit of a deodorizer.

Johnson has a research proposal for a telephone survey—a national random sample of 600 homeowners screened to be owners of compactors would be phoned via a WATS line. Johnson wonders (1) whether the proposed questionnaire will deliver the necessary information and (2) what improvements could be made.

#### Proposed Questionnaire for Telephone Survey

1. Do you own a compactor?
2. How often do you use your compactor?
3. Is it satisfactory?
4. Any problems?
5. Have you noticed any odor problems? (Skip if covered in question 4.)

Our client is considering a new product. The concept involves a powerful lemon-scented cleaner in a convenient spray container to be used to clean trash compactors. This heavy-duty cleaner will clean more easily because it is in spray form, and it will provide the added benefit of a deodorizer.

6. Which of the following would describe your likelihood to buy the product?

Would buy it

Would very likely buy it

Would not very likely buy it

Would not buy it

7. What is your reaction to this idea? (Probe—any other reactions?)

8. How often do you use deodorizers in the home?

9. How many people are living in your home?

10. What is your age?

11. Do you have children under eight years old?

12. Which are you?

a. Home owner?

b. Home renter?

c. Apartment renter?

### CASE 12-4 Project DATA: An Urban Transportation Study

The Downtown Agency for Transportation Action project (Project DATA) was a collaborative approach to the problem of improving the high-density movement of people and goods within downtown Cleveland.<sup>1</sup> In August 1996, the survey researcher employed by Project DATA was wondering how to collect downtown origin and destination (DOD) data for input to a comprehensive model of traveler behavior in downtown Cleveland. Problems had been compounded by a poor response rate to a recent test of the preferred method of data collection, a mail-back questionnaire distributed to rapid-transit users, bus patrons, and automobile travelers. Consequently, the researcher had to decide in a short

time whether to stay with the mail-back questionnaire method or try some other, more costly, procedure. Not to change would involve persuading the other members of the research team that the problems encountered in the pretest could be overcome and that the mail-back method would yield sufficiently accurate results.

#### Background

Downtown Cleveland represented one of the most important concentrations of people in the Midwest. It generally was defined as an area encircled by the Cuyahoga River Valley, the Innerbelt Freeway, and Lake Erie. For the purposes of Project DATA, this definition was modified slightly to include the downtown-oriented activity centers adjacent to the southeast corner of the area outside the Innerbelt Freeway. These centers include the future location of Cuyahoga

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<sup>1</sup>Funds and assistance for the project were provided by Case Western Reserve University, Battelle Memorial Institute, City of Cleveland, Cleveland-Seven County Transportation-Land Use Study, Cleveland Transit System, Cuyahoga County, and U.S. Department of Housing and Urban Development.



Community College and the St. Vincent Hospital and its parking area.

There had been considerable progress in making downtown Cleveland more accessible through rail rapid transit and freeways; however, facilities to expedite the movement of people and goods within the downtown area were being installed at a much slower rate. Transportation planners had tended to treat downtown Cleveland as a terminus point for regional line-haul transportation, yet the downtown covered a broad land area with several separate activity centers and a solid network of business, commercial, and entertainment facilities. Except for a downtown loop bus system, there was little transportation among these centers.

The lack of transportation was regarded as a contributing factor in the deterioration of downtown Cleveland and many other urban areas. After the Hough riots, Cleveland was chosen by the U.S. Department of Transportation as the site of the first large-scale effort to design a comprehensive central urban transportation network. A number of systems were under consideration, including: (1) train-type systems, (2) small automatic taxis, and (3) continuous systems. Each was to be evaluated by a model that would simulate the decision processes of different user segments. The model would consider where and how users move from one place to another for various trip purposes within the downtown area. The DOD data being collected by Project DATA were to be the base for the calibration of the simulation model. In addition, the data would be used in the development of interim projects to improve the existing downtown transportation system. Thus, there was considerable urgency behind the request for the data.

### Designing the DOD Study

The first step was to establish the purpose of the study. After extensive discussions, it was agreed that the following types of information were needed:

1. The numbers and socioeconomic characteristics of people who move to, from, and within downtown Cleveland
2. The locations of the activity centers within downtown Cleveland to which these people are moving
3. The methods of travel used to move these people to, from, and within downtown
4. The trip purposes of the people movements

5. The time distribution of the people-movement patterns throughout a 24-hour period

A number of alternative methods for collecting the DOD information were considered. These included mail-back questionnaires distributed to people at key locations within the downtown area, personal interviews conducted at these same key locations, telephone surveys, trip diaries distributed to people to complete over extended periods of time, mail-back questionnaires sent to houses, personal home interviews, newspaper coupons to be completed and returned by mail, and a system of distributing and collecting precoded computer cards to reflect origins and destinations of trips within the downtown area.

An evaluation of the various survey designs was made by the Project DATA staff. It decided that a mail-back questionnaire distributed at key locations within the downtown area was the most realistic approach to collecting the needed information, taking into account the time and financial constraints of the project. To test this decision, a pilot survey was conducted. The objectives were:

1. To evaluate the ability of the survey forms and questions to obtain the required data
2. To determine the approximate survey response rates that could be expected from the various categories of people so that a proper data sampling frame could be formulated
3. To ascertain where in the downtown area the survey questionnaires should be distributed
4. To determine the best procedures for distributing the questionnaires to the users of various modes of transportation

The pilot survey utilized the questionnaire shown in Figure 12-3. Four hundred were distributed to rapid-transit users as they went through the turnstiles in Terminal Tower. Another 600 were given to bus riders as they passed an imaginary downtown cordon line. Those questionnaires were distributed only during the A.M. and P.M. peak traffic periods. A final 400 questionnaires were distributed within two major parking lots by placing them under windshield wipers after the automobiles had been parked. The results of the pilot survey are summarized in Figures 12-4, 12-5, and 12-6.

## Questions for Discussion

1. Critique the questionnaire. Does it provide the required data?
2. Evaluate the overall research design with respect to possible sources of bias in the results and the reasons for the poor response rate.
3. Specify how you would improve this mail-back survey.
4. Suggest an alternative design and cite its advantages and shortcomings.

1. Please list ALL trips you made downtown TODAY. We are especially interested in short walking trips such as: going to lunch, coming from lunch, a walk from the parking lot to the office, etc.

	Name of Place Where Trip Starts and Address if Possible	Time Trip Starts	Name of Place Where Trip Ends and Address if Possible	Time Trip Ends	Purpose of Trip (Please use codes below)	Method of Travel
Trip TO the downtown area					<input type="checkbox"/>	<input type="checkbox"/>
First Trip IN downtown area					<input type="checkbox"/>	<input type="checkbox"/>
Second Trip in downtown area					<input type="checkbox"/>	<input type="checkbox"/>
Third Trip					<input type="checkbox"/>	<input type="checkbox"/>
Fourth Trip					<input type="checkbox"/>	<input type="checkbox"/>
Fifth Trip					<input type="checkbox"/>	<input type="checkbox"/>
Sixth Trip					<input type="checkbox"/>	<input type="checkbox"/>
Trip FROM the downtown area					<input type="checkbox"/>	<input type="checkbox"/>

2. How many persons accompanied you downtown today? ☐  
How many of these persons were children under 12? ☐

3. How often do you usually come downtown? (Please Check One)

1. Every Weekday (Mon-Fri) <input type="checkbox"/>	<p>"Purpose of Trip"</p> 1. work 2. personal business 3. shopping 4. social-recreation 5. school 6. eat 7. medical or dental 8. serve passenger 9. to home 10. other	<p>"Method of Travel"</p> 1. auto driver 2. auto passenger 3. bus 4. rapid transit 5. taxi 6. walk 7. other
2. Several Times a Week <input type="checkbox"/>		
3. Once a Week <input type="checkbox"/>		
4. Once a Month <input type="checkbox"/>		
5. Other (Please Specify) <input type="checkbox"/> _____		

4. Name \_\_\_\_\_  
Address \_\_\_\_\_

(Number) (Street) (City) (Zip)

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5. Male ☐ Female ☐: Number of Persons in Your Household? ☐ Your Age? ☐ No. of Autos in Household? ☐

6. Approximate Family Yearly Income: (Please Check One)

Under \$3,500 ☐; \$3,500-6,500 ☐; \$6,500-9,500 ☐; \$9,500-12,500 ☐; \$12,500-15,500 ☐; Over \$15,500 ☐

7. What could be done to make your trips within downtown Cleveland easier, faster, or more pleasant?

\_\_\_\_\_

\_\_\_\_\_

8. We would appreciate any suggestions you may have for making this questionnaire clearer or easier to answer. For instance, were any of the questions confusing? Why?

\_\_\_\_\_

\_\_\_\_\_

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Mode	Number of Questionnaires Returned	Number of Questionnaires Handed Out	Percentage Return
CTS Rapid Transit	20 (A.M.) 19 (P.M.)	100 100	20 19
Shaker Rapid Transit	23 (A.M.) 16 (P.M.)	100 100	23 16
CTS Bus Route 32 (suburban express)	23 (A.M.) 15 (P.M.)	100 100	23 15
CTS Bus Route 9 (suburban local)	22 (A.M.) 16 (P.M.)	100 100	22 16
CTS Bus Route 14 (low-income inner-city area local)	5 (A.M.) 1 (P.M.)	100 100	5 1
Department Store Parking Lot (relatively high parking turnover rate)	10	200	5
Muny Parking Lot (caters primarily to all- day parkers)	16	200	8
Totals	186	1,400	

**FIGURE 12-4**  
Distribution and response of pilot survey.

1. A common error for rapid transit respondents was that they failed to record Terminal Tower as their first destination in the central business district (CBD).
2. A common error for all respondents was that they often failed to record return trips, especially the return lunch trip.
3. It appears that a relatively large number of people (especially bus riders) do not leave the building they work in during the day. Or, these people did not understand how to fill out the form.
4. The people that returned the questionnaire can be generally categorized into two major groups: (a) those that completely understood how to fill out question 1, and (b) those that completely misunderstood how to fill out question 1.
5. A few people recorded "work," "restaurant," and so on as their origin and destination points, rather than an address or the specific name or the place or location.
6. Several people did not record the number of the home address; only street, city, and Zip Code.
7. A relatively large number of respondents failed to answer question 2.
8. For the majority of the respondents, filling in the trip purpose and method of travel codes presented no problems. In fact, many people improvised on the questionnaire to provide additional data.
9. In a few instances people did not record trip times. Again, it appears that these cases were oversights. Generally, people recorded this information accurately. For example, walking trips lasting two or three minutes were being recorded. The longer the trip—usually the trips to and from the CBD—the more tendency there was to round off the trip time to 15- or 30-minute intervals.
10. The majority of respondents filled out the income question with no comments. However, several people residing in higher income areas questioned the necessity of the information in relation to transportation. Eleven of the 180 respondents failed to answer this question.
11. There is some confusion on the income question. For example, there were many 20- and 21-year-olds making over \$15,000 annually, based on the result of the survey.
12. A few respondents (seven) did not record their age.

(continued)

**FIGURE 12-5**  
Analysis of problems by Project DATA staff.

13. Public transportation respondents receiving the questionnaire on the outbound trip (P.M.) had a tendency to record only that trip. In addition, the (P.M.) return rate of the questionnaire was considerably less than the (A.M.) (inbound) trip.
14. Several bus-rider respondents obviously failed to record their first trip in the CBD between the bus stop and their first CBD destination. In other cases, this error was difficult to identify, since it is unknown to us how far it is from the bus stops to their first CBD destinations on Euclid Avenue. (Bus routes surveyed were Euclid Avenue routes.)
15. Many bus respondents misunderstood question 2 and recorded the total number of people on the bus.
16. A surprisingly large number of people enter the CBD via one mode and exit using another mode.
17. Bus riders are very concerned about trips to and from the CBD and wonder why we are concerned with only downtown transportation needs.

**FIGURE 12-5 (continued)**

1. Question #1 refers to "today," while #3 refers to "usual" habits. I go downtown every day, but I do not always drive. Also, times of leaving and arriving vary.
2. I think this questionnaire is easily followed.
3. Good questionnaire—easy to answer.
4. The first group of questions could be made more explicit.
5. They were confusing on many trips because I don't do the same thing every day at lunch time.
6. Question #2.
7. Everything is clear.
8. Very good—not confusing.
9. If answers must be confined to the blocks, it might be well to point this out.
10. Questionnaire seems clear enough.
11. Not confusing.
12. Add a few more lines for #7 and place a line for the date.
13. Could not be made any clearer.
14. No provision of alternates—sometimes walk/bus; no space allowed for total trip home as buses connecting with rapid for suburbs cannot be included in "downtown area" trips. I need two bus trips plus rapid to get home.
15. Understand as is.
16. Question #4 is revelatory; you should ask for nearest intersection.
17. Question #2a could be reworded—glad you're interested!
18. Question #2 doesn't make it possible to answer if one has not made a bus trip and/or is unaware of survey. Question #7—why discuss only downtown? The trip to town is depressing.
19. All questions clear enough.
20. No clearcut place for occasional trips.
21. It was difficult for me to answer Question #1.
22. It is fine.
23. Clarify Question #1 and #2—add extra part to "from downtown area" for intermediate trip, e.g., Terminal-Windemere-home (one trip or two?)
24. Home address—why necessary?
25. Use of "grid" and block number instead of address would make the form easier and more meaningful.
26. The questionnaire was very simple to fill out. I hope you get as many back as you gave out.
27. My family does not reside in Cleveland, therefore, perhaps question #6 is irrelevant.
28. You didn't provide for combined bus and rapid or car and rapid use.

(continued)

**FIGURE 12-6**  
Survey criticisms by respondents (unedited responses to Question 8).



29. No confusion.
30. Questionnaire was clear.
31. Upper right-hand corner should have more blocks for more than one method of travel or purpose of trip.
32. Method of travel does not indicate if more than one method is used; i.e., bus, transfer to rapid, transfer to bus again, or walk.
33. Provide a way of indicating more than one method of travel for the same trip, such as transfers to and from a bus or rapid transit.
34. Why worry about short walking trips? Alleviate the problems of getting into and out of the downtown area from the suburban residential sections.
35. I should like to know the purpose of this questionnaire and whether something constructive will come of it. I think the questionnaire is clear—I hope useful.
36. Believe inquiry as to whether or not service from home to downtown was frequent enough at hour necessary to leave would be pertinent.
37. Referring back to Question #1—List trips within downtown area for a 30-day period giving people more of an opportunity to use “Purpose of Trip” and “Method of Travel.”
38. Much more time could be spent in the organization of this questionnaire.
39. What does the yearly family income have to do with the transportation problem?
40. Very specific and clear.
41. Why income of family?
42. Not confusing, but embarrassing and totally unnecessary, i.e., why the question of sex (male and female) necessary? Also, why the interest about incomes? Or if a person is alone or how many in the household? These, to me, seem totally irrelevant questions.
43. I found the questionnaire clear enough.
44. It seems a much better questionnaire than the usual.
45. Perfectly clear.
46. No distinction between going to work and business calls during day.
47. Method of travel and purpose should indicate that more than one answer is okay. Also more space for multiple answers.
48. Complication where two travel modes are used—see Question #1 “Trip”—definition not immediately clear.
49. Design a way to emphasize that you are only interested in a certain part of downtown.
50. Question #7 might be worded as below to eliminate unwanted responses. This may, however, confuse your strictly ambulatory respondents. (Question #7 reworded: What could be done to *our transportation system* to make your trips within downtown Cleveland easier, faster, and more pleasant?)
51. Extremely amateurish from a professional standpoint—too detailed, too time-consuming, too personal (address, identify with income).
52. Question #4 is not necessary.
53. Question #1 doesn’t indicate whether you mean total trip or first or second leg—to my office is two steps.
54. It would seem easier to ask approximately how long a trip took than the times. I never pay much attention to timing my trips by the clock—especially shopping.
55. Questions were all clear.
56. Good questionnaire—okay.

**FIGURE 12-6 (continued)**

CASE 13-1

Evaluating Experimental Designs

A description of a variety of experimental designs follows. For each design: (1) indicate the type of experiment that is being used, (2) briefly discuss the threats to *internal* and *external validity* and identify those you regard as the most serious, and (3) describe how you would improve the design to overcome the problems you have identified.

1. In the Bayer deceptive advertising case an issue was whether people were influenced by some Bayer advertisements to believe that Bayer was more effective than other aspirins in relieving pain. In an experiment designed to address that issue, a Bayer print advertisement was shown to 428 people projectable to the U.S. adult population, and two television advertisements were shown to 240 people recruited from local organizations (which received \$1.00 for each participant) in nine communities in Massachusetts, Missouri, and Georgia. After being exposed to the advertisements, respondents were asked to identify the main points of the advertisement, what the advertisement meant by its major claim, and whether the advertisement suggested that Bayer is more effective at relieving pain than any other brand of aspirin. The percentage of respondents were tabulated who, in response to the open-ended questions, said (1) that Bayer is best and (2) that Bayer is better than other aspirins. Whether the respondents made explicit reference to effectiveness also was noted. These percentages were used to address the issue. For example, across all surveys it was found that 10 percent felt that a main point of the advertisement was that Bayer is best or better than other aspirins *in effectiveness*. Also across all surveys, 71 percent felt that the advertisement suggested that Bayer works better than any other aspirin.
2. In 1982, the instrument group of National Chemical decided to change from a modest advertising effort aimed at generating leads for its sales force to a more substantial program aimed at increased awareness and preference. A major vehicle for this campaign was *Chemical Process Instrumentation*, a leading trade magazine. To evaluate the advertising, a survey was made of the readers of that magazine before and after the one-year campaign. In each case a systematic sample of 2,500 readers was sent questionnaires. Responses were obtained from 572 for the before

sample and 513 for the after sample. Among the questions were

- List the companies you consider to be the leading manufacturers of the following products.
- Check the one manufacturer (for each product) that you would first consider when purchasing the item.

The results showed

	Before	After
Percentage aware of National Chemical	23	46
Percentage prefer National Chemical	8	11

The results were averaged across the major products carried by National Chemical.

3. An account executive notices that a client is sponsoring a program that will be shown on about three-fourths of the network's station lineup. This provides a possibility for testing the effectiveness of the new commercials being used. The executive's letter to the research supervisor reads, in part: "What if we picked several markets that will receive the program and several that won't? Then within each of these we can measure attitudes and purchasing among a randomly selected group of consumers. After the broadcast we can interview other randomly selected groups on the same questions."
4. A manufacturer of products sold in food stores wished to find out whether a coupon good for 10 cents off the purchase price of its product could win new users. Coupons were mailed to half the households in the city's upper-80-percent income groups. Ten days before mailing, phone interviews were conducted with 200 randomly selected households scheduled to receive the coupon and 200 randomly selected who would not receive it. Whoever answered the phone was questioned about brand awareness and past purchasing within the product category. One month later, callbacks were made to 400 households. Of the original group, 165 coupon receivers and 160 nonreceivers were asked the awareness and purchase questions again. In addition, 100 coupon recipients and 100 nonrecipients who were not previously questioned were interviewed on this occasion. The latter also were picked randomly from the receiver and nonreceiver populations.

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## CASE 13-2

### Barrie Food Corporation

Al Blankenship (of Carter-Wallace) has just given an enthusiastic account of a new technique for evaluating television commercials. Your boss—the marketing research manager for a large food manufacturer—who is in the audience with you, wants you to analyze the technique carefully and make a recommendation on the use of the technique. The transcript of Blankenship's remarks follows:

*Jim stopped in my office one day early this year, bursting with an idea he had to test the effectiveness of television commercials. He told me that in fall, 1976, WCAU-TV had telecast a program which discussed the pros and cons of the proposed roofed-over sports stadium for the city. Viewers were asked to telephone their reactions to a special number to indicate whether they were in favor of or opposed to the sports palace. Jim and his group had been assigned the job of keeping a running total of the vote.*

*He had become intrigued, he said, that this sort of approach might be used to measure the effectiveness of television commercials. In a balanced experiment, you could have an announcer, immediately following the test commercial, ask people to telephone in to request a sample of the product. Differences in rate of response between different commercials would measure their effectiveness.*

*My reaction was immediate and positive. This was really getting close to a behavioral measurement of response to advertising. But it lacked a crucial control. How could you be sure that the same number of people had been exposed to each commercial? The technique required a measurement of the size of audience exposed to each test commercial.*

*In this situation, I thought of C. E. Hooper, since one of Hooper's specialties is measurement of audience size. If audience size could be built in as a control, it seemed to me that the technique was solid. I got Jim together with Bruce McEwen, Executive Vice President of Hooper. Bruce was just as excited as I had been.*

*However, following our discussion, I began to cool off. I was afraid that the audience size measurement made the whole thing too cumbersome, and that the cumbersomeness*

*might somehow introduce error. There was something a bit sloppy about the methodology. I did not warm up to the idea, the more I thought about it, that the viewer was going to get a free sample merely by a telephone call. This was not real life. I was afraid that the free offer bit would result in such a high level of response that it would be impossible to differentiate between commercials.*

*Several weeks later it hit me. What we needed was an easy method of controlling audience size and who received the special offer, and a way to make the viewer pay at least something for his [or her] product. Couponing, properly designed, could provide the solution.*

*A simple method was devised, and pretesting was conducted on the couponing aspects to make sure that the price level was right. The entire test procedure required four steps: a screening telephone call, a coupon mailout, a telephone postcall, and measurement of coupon redemption.*

*The precall is made within a stated time period in advance of the television show that is to carry the test advertising. The respondent is asked about his or her viewing plans for the forthcoming period. The last brand purchased of each of several product groups is asked about. The product group for the brand of the test commercial is included.*

*Immediately following screening, each person stating that he or she intended to watch the test vehicle is sent a special coupon, good for the product advertised at a special, low price. This coupon is sent in the manufacturer's envelope, and so far as the recipient knows, has no connection with the survey. This is not a store coupon. To be redeemed, it must be sent to the manufacturer. However, it is made as easy as possible to redeem. A postage-paid return envelope is included, and all the recipient must do is insert the proper coins in a card prepared for this purpose, which includes his name and address. The coupon has an expiration date of one week from date of mailing, to prevent responses that are meaningless trickling in over a long time period. The procedure makes it possible to consider coupon responses only from those who viewed the program, which is crucial.*

*The day following the telecast, a call is made to each person who has said that he or she expected to view the particular program. The only purpose of the call is to determine whether the person has actually viewed the particular show. No question about advertising or about brands is asked.*

### CASE 14-1

#### Exercises in Sample Design

In each of the following situations, make recommendations as to the type of sample to be used, the method of selecting the sample, and the sample size.

1. The manager of the appliance department of a local full-line department store chain is planning a major one-day nonprice promotion of food processors, supported by heavy advertising in the two local newspapers. The manager asks you to recommend a method of sampling customers coming into the department. The purpose is to assess the extent to which customers were drawn by the special advertisement, and the extent to which the advertisement influenced their intentions to buy. A pretest of the questionnaire indicates that it will take about 3 minutes to administer. The manager is especially interested in learning whether there are significant differences in the response to the questionnaire among (a) males versus females, (b) gift buyers versus other buyers, and (c) age groups.
2. A major airline wants to run a preliminary study on the attitudes of university students toward air travel. The company's research director already has submitted an interview plan and has estimated that, on average, each interview will require between an hour and an hour-and-a-half to administer. It is

estimated that the cost of interviewing and interpreting the interview will be roughly \$75.00 per respondent.

3. A small Caribbean island relies heavily on tourist income. There is a need to develop a study so that an estimate can be provided each month as to
  - a. The number of tourists
  - b. The length of stay
  - c. Their activities
  - d. Their attitudes toward some programs and activities

The plan is to conduct a short interview with each respondent and to leave with them a short questionnaire to be completed and mailed after returning home.

Several sampling plans are being considered. One is to generate a random sample of hotel rooms and to interview each occupant. Another involves sampling every  $n$ th person that passes a predetermined point in the city. Still another is to sample departing planes and ships. About six planes and three ships depart each day. Design a sampling plan so that each month 500 tourists are obtained in the sample.

4. A sample of homeowners in the state of Illinois is desired for a major segmentation study conducted by a large financial institution. A lengthy personal interview lasting over 1 hour will be conducted with each respondent. A sample size of 3,000 is targeted.

### CASE 14-2

#### Talbot Razor Products Company

One of the products marketed by Talbot Razor Products Company is an after-shave lotion called Enhance. This brand is sold through drugstores, supermarkets, and department stores. Sales exceed \$30 million per year but are barely profitable because of advertising expenses that exceed \$9 million. For some time the company and its advertising agency have felt the need to undertake a study to obtain more data on the characteristics of their users as contrasted to those of other leading brands. Both the company and the agency believe that such information would help them find better ways to promote the Enhance brand.

Preliminary discussions between the advertising department and the research department of the advertising agency resulted in the following study objectives.

1. To determine the characteristics of Enhance users versus competitors by such factors as age, income, occupation, marital status, family size, education, social class, and leisure-time activities.
2. To determine the image of the Enhance brand versus competitors on such attributes as masculinity, expensiveness, and user stereotypes (such as young men, factory workers, young executives, and men living in small towns).
3. To discover the meaning to consumers of certain words that were used to describe after-shave lotions.
4. To examine the media habits of users by television programs, magazines, and newspapers.

In discussing the sampling universe, the advertising manager thought the study results should be broken down by heavy versus light users of Enhance. In the manager's opinion, as few as 15 to 20 percent of the users might account for 60 percent of the total purchases.

It was not clear how many containers a user would have to buy during a specified time period to qualify as a heavy or a light user. The research director and the advertising manager disagreed on a definition of user: The research director thought that anyone who had used the Enhance product within the past year should qualify as a user and therefore be included in the study, while the advertising manager thought that a user should be defined as one who had purchased the product within the past three months. In fact, the advertising manager went on to say, "I am really interested only in those people who say that the Enhance brand is their favorite brand or the brand that they purchase more than any other."

After much discussion about what constituted or should constitute a user, the research director pointed out that the advertising manager was being unrealistic about the whole sampling problem. A pilot study was conducted to determine how many qualified users could be obtained out of every 100 persons interviewed in Sacramento, California. While the findings were not completely representative, they did provide a crude estimate of the sampling problem and the costs that would result from using any kind of a probability sample. The research director said:

*In the Sacramento study we were interested only in finding out how many males 18 years of age or older used after-shave, what brands they had purchased during the past year and the past three months, and what brand they bought most frequently. All interviewing took place during the evening hours and the weekend. The findings revealed that only about 70 percent of the male respondents were at home when the interviewer made the call. Of those who were home and who agreed to cooperate, only 65 percent were users of after-shave: that is, affirmatively answered the question: "Do you ever use after-shave?" Of those who used after-shave, only 7 percent had purchased the Enhance brand within the past three months, while 15 percent reported having purchased it within the past year. The costs of the Sacramento job figured out to about \$6.00 per contact including the not-at-homes, refusals, and completed interviews, all as contacts. The sample size for the Sacramento pilot study was 212 male respondents, and the field costs were \$1,272. These costs will be increased substantially if the sample includes smaller towns and farm interviews.*

The research director believed that the best sample size they could hope for would be one that provided about 100 interviews with Enhance users plus 100 interviews with users of other brands in each of 10 to 15 metropolitan areas. This would provide a total sample size of 2,000 to 3,000 and would require contacts

with between 40,000 and 50,000 respondents. The research director indicated that this size sample would permit breakdown of the results for the United States by heavy versus light users.

The advertising manager, who did not think this would be an adequate national sample, said:

*I can't present these results to my management and tell them that they are representative of the whole country, and I doubt if the sample in each of the 10 to 15 metropolitan areas is big enough to enable us to draw reliable conclusions about our customers and noncustomers in that particular area. I don't see how you can sample each metropolitan area on an equal basis. I would think that the bigger areas such as New York and Chicago should have bigger samples than some of the smaller metropolitan areas.*

The research director explained that this way of allocating the sample between areas was not correct since the size of the universe had no effect on the size of the sample. According to the director:

*If we do it the way you are suggesting, it will mean that in some of the big metropolitan areas we'll end up with 150 to 200 interviews, while in some of the smaller ones, we'll have only 50 or 75 interviews. Under such conditions it would be impossible to break out the findings of each metropolitan area separately. If we sample each area equally, we can weigh the results obtained from the different metropolitan areas so as to get accurate U.S. totals.*

When the discussion turned to costs, the advertising manager complained:

*I can't possibly tell my management that we have to make 40,000 to 50,000 calls in order to get 2,000 to 3,000 interviews. They're going to tell me that we're wasting an awful lot of money just to find users. Why can't we find Enhance users by selecting a sample of drugstores and offering druggists some money for getting names and addresses of those men who buy after-shave? We could probably locate Enhance users for maybe 35 to 50 cents each.*

The research director admitted that this would be a much cheaper way, but pointed out that it is not known what kind of sample would result, and therefore it would be impossible to tell anything at all about the reliability of the survey. The advertising manager thought management would provide no more than \$30,000 for the study. The research director estimated that the results could be tabulated, analyzed, a report written, and the results presented to management for about \$7,000, thus leaving around \$23,000 for fieldwork.



1. How should the sampling universe be defined?
2. How large a sample should be collected?
3. How should the sample be distributed geographically?

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## CHAPTER 15—CASE

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### CASES FOR PART II

#### Data Collection

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#### CASE II-1 Currency Concepts International<sup>1</sup>

Dr. Karen Anderson, Manager of Planning for Century Bank of Los Angeles, settled down for an unexpected evening of work in her small beach apartment. It seemed that every research project Century had commissioned in the last year had been completed during her 10-day trip to Taiwan. She had brought three research reports home that evening to try to catch up before meeting with the bank's Executive Planning Committee the next day.

Possibly because the currency exchange facilities had been closed at the Taiwan Airport when she first arrived, Dr. Anderson's attention turned first to a report on a project currently under consideration by one of Century Bank's wholly owned subsidiaries, Currency Concepts International (CCI). The project concerned the manufacture and installation of currency exchange automatic teller machines (ATMs) in major foreign airports.

CCI had been responsible for the development of Century Bank's very popular ATM ("money machine"), now installed in numerous branches of the bank, as well as in its main location in downtown Los Angeles. The current project was a small part of CCI and Century Bank's plan to expand electronic banking services worldwide.

As she started to review the marketing research effort of Information Resources, Inc., she wondered what she would be able to recommend to the Executive Planning Committee the next day regarding the currency exchange project. She liked her recommendations to be backed by solid evidence, and she looked forward to reviewing results of the research performed to date.

#### Activities of Information Resources, Inc.

Personnel of Information Resources, Inc., had decided to follow three different approaches in investigating the problem presented to them: (1) review secondary statistical data; (2) interview companies that currently engage in currency exchange; and (3) conduct an exploratory consumer survey of a convenience sample.

**Secondary Data.** The review of secondary data had three objectives:

1. To determine whether the number of persons flying abroad constitutes a market potentially large enough to merit automated currency exchange
2. To isolate any trends in the numbers of people flying abroad
3. To determine whether the amount of money that these travelers spend abroad is sizeable enough to provide a potential market for automated currency exchange

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<sup>1</sup>This case is printed with permission of the author, Grady D. Bruce of the California State University, Fullerton.

The U.S. Department of Transportation monitors the number of people traveling from U.S. airports to foreign airports. These statistics are maintained and categorized as follows: citizen and noncitizen passengers, and civilian and military passengers. Since this study was concerned only with Americans who travel abroad, only citizen categories were considered. Furthermore, since American military flights do not utilize the same foreign airport facilities as civilian passenger flights, the military category was also excluded. The prospect that non-Americans might also use these facilities causes the statistics to be somewhat conservative. The figures for 2001 were summed for each foreign airport; the results by geographic area are shown in Marketing Research in Action II-1. The top 10 gateway countries from all American ports are shown in Marketing Research in Action II-2.

The second objective, to determine any growth trends in air travel, was addressed by studying the number of Americans flying abroad in the last five years. Marketing Research in Action II-3 shows the number of American travelers flying to various geographic areas and the associated growth rates in each of those areas. Europe clearly has the greatest number of travelers. Generally, the growth rates in overseas air travel have been negative since 2000 due to the slowing economy and terrorist attacks.

In order to address the third objective, whether the amount of money spent by American travelers abroad constitutes a potential market, per-capita spending was examined. Marketing Research in Action II-4 shows per-capita spending, by geographic area, for 1997–2001 as well as yearly percentages of growth. These figures indicate that Americans are spending increasing amounts of money abroad; even when inflation is taken into consideration, these figures are positive.

## MARKETING RESEARCH IN ACTION II-1

### American Citizens Flying Abroad in 2001 to Major Foreign Ports of Entry

Region/Country	Number of Travelers (in thousands)
Mexico	17,153
Canada	15,561
Europe	11,438
Caribbean	4,141
South America	2,247
Central America	1,414
Africa	505
Middle East	1,010
Asia	4,318
Oceania	1,187

SOURCE: U.S. Department of Commerce, International Trade Administration, Office of Travel and Tourism Industries, January 2003.

Information Resources, Inc., concluded, therefore, that Europe holds the greatest market potential for the new system. As Dick Knowlton, coordinator of the research team, said, “Not only are all of the statistics for Europe high, but the short geographic distances between countries can be expected to provide a good deal of intra-area travel.”

**Company Interviews.** In an attempt to better understand the current operations of currency exchange in airports, four major firms engaged in these activities were contacted. While some firms were naturally reluctant to provide information on some areas of their

## MARKETING RESEARCH IN ACTION II-2

### Most Frequented Foreign Countries of Entry from All American Ports in 2000 and 2001

Country	2000 Travelers (in thousands)	Percent Change	2001 Travelers (in thousands)
Mexico	18,849	–9%	17,153
Canada	15,188	2%	15,561
U.K.	4,189	–19%	3,383
France	2,927	–10%	2,626
Italy	2,148	–10%	1,944
Germany	2,309	–18%	1,894
Dominican Republic	779	72%	1,338
Jamaica	886	48%	1,313
Japan	1,262	–16%	1,060
Spain	1,262	–20%	1,010

SOURCE: U.S. Department of Commerce, International Trade Administration, Office of Travel and Tourism Industries, January 2003.

## MARKETING RESEARCH IN ACTION II-3

### Growth in Numbers of U.S. Citizens Flying Abroad 1997–2001 (in thousands)

Regions	1997	Percent Change 1997–1998	1998	Percent Change 1998–1999	1999	Percent Change 1999–2000	2000–2001	Percent Change 2000–2001	2001
Europe	10,099.50	8.90%	10,995.40	6.10%	11,665.80	12%	13,121.67	–7%	12,137.83
Caribbean	4,108.10	1.50%	4,170.40	8.70%	4,533.50	3%	4,681.87	–5%	4,432.90
Asia	3,399.60	1.80%	3,459.50	5.10%	3,635.60	10%	4,000.62	–5%	3,819.87
South America	1,681.50	8.50%	1,824.20	–0.60%	1,812.80	4%	1,879.96	0%	1,873.43
Central America	1,104.00	19.90%	1,323.80	10.80%	1,466.80	10%	1,606.71	0%	1,601.55
Oceania	613.5	8.80%	667.6	22.00%	814.6	9%	885.9	–8%	816.79
Middle East	449.8	–3.90%	432.2	2.90%	444.9	0%	446.59	–25%	334.55
Africa	177.9	10.30%	196.2	4.50%	205	12%	230.04	1%	232.12
Total overseas	21,633.90	6.60%	23,069.20	6.50%	24,579.10	9%	26,853.35	–6%	25,249.03
Mexico	4,333.50	2.50%	4,442.60	7.80%	4,788.60	4%	4,992.49	–2%	4,909.34
Canada	3,192.40	13.50%	3,622.80	5.10%	3,806.70	2%	3,871.89	–3%	3,767.08
Grand total	29,159.80	6.80%	31,134.60	6.60%	33,174.40	–3%	32,123.15	5%	33,625.45

SOURCE: U.S. Department of Commerce, International Trade Administration, Office of Travel and Tourism Industries.

operations, several were quite cooperative. These firms, and a number of knowledgeable individuals whose names surfaced in initial interviews, provided the information that follows.

In both New York and Los Angeles, there is only one bank engaged in airport currency exchange: Deak-Perera.

American Express, Bank of America, and Citibank, as well as Deak-Perera, are engaged in airport currency exchange in a variety of foreign locations. Approval of permits to engage in airport currency exchange activity rests with the municipal body that governs the airport, and is highly controlled. It appears that foreign currency

## MARKETING RESEARCH IN ACTION II-4

### Per-Capita Spending by Americans Traveling Abroad 1997–2001 (US\$)

Region	1997	Percent Change	1998	Percent Change	1999	Percent Change	2000	Percent Change	2001
Europe	63	15%	73	3%	75	2%	76.6	2%	78
Latin America	30	85%	56	6%	59	1%	59.6	1%	60
South and Central America	-	-	41	3%	43	2%	43.7	2%	45
Asia and Pacific	-	-	42	3%	44	0%	43.6	0%	43
Overseas total	142	12%	158	6%	167	0%	167.0	0%	167
Canada	17	17%	20	7%	22	3%	22.4	3%	23
Mexico	23	–1%	23	–9%	21	8%	22.2	7%	24
Total	182	10%	201	5%	210	1%	211.6	1%	214

SOURCE: U.S. Department of Commerce, International Trade Administration, Office of Travel and Tourism Industries, January 2003.

exchange is a highly profitable venture. Banks make most of their profits on the spread in exchange rates, which are posted daily.

Both Citibank and Bank of America indicated that they attempt to ensure their facilities' availability to all flights. The more profitable flights were found to be those that were regularly scheduled, rather than chartered. The person more likely to use the facilities was the vacationer rather than the businessperson. Neither bank could give an exact figure for the average transaction size; estimates ranged from \$85 to \$100.

It was the opinion of bank/Deak employees, who dealt with travelers on a daily basis, that the average traveler was somewhat uncomfortable changing money in a foreign country. They also believed it to be particularly helpful if clerks at the exchange counter converse with travelers in their own language. A number of years ago Deak attempted to use a type of vending machine to dispense money at Kennedy Airport. This venture failed; industry observers felt that the absence of human conversation and assurance contributed to its lack of success.

Most of the exchanges performed the same types of services, including the sale of foreign currency and the sale of travelers checks. The actual brand of travelers checks sold varies with the vendors.

American Express has recently placed automated unmanned travelers check dispensers in various American airports. This service is available to American Express card holders and the only charge is 1 percent of the face value of the purchased checks; the purchase is charged directly to the customer's checking account. As yet, the machines have not enjoyed a great deal of use, although American Express has been successful in enrolling its customers as potential users.

Methods of payment for currency purchases are similar at all exchanges. Accepted forms of payment include: actual cash, travelers checks, cashier checks drawn on local banks, and MasterCard or Visa cards. When using a credit card to pay for currency purchases, there is a service charge added to the customer's bill, as with any cash advance.

**Traveler Interviews.** To supplement and complement the statistical foundation gained by reviewing secondary data sources, the consumer interview portion of the study was designed to elicit qualitative information about travelers' feelings toward current and future forms of exchanging currency. Approximately 60 American travelers were interviewed at both the San Francisco and Los Angeles International Airports, due to the accessibility of these locations to Information Resources' sole location. An unstructured, undisguised questionnaire was developed to assist in channeling the interview toward specific topics (see Appendix A). Questions were not fixed and the question order was dependent on the respondent's answers. Basically, the guide served to force the interview conversation around the central foreign currency

exchange theme. The interviews were conducted primarily in the arrival/departure lobbies of international carriers and spanned over four weeks. A deliberate attempt was made to include as many arriving as departing passengers to neutralize the effect of increasing holiday traffic. Additionally, to reduce interviewer bias, three different interviewers were used. Interviews were intentionally kept informal. And Dick Knowlton cautioned the interviewers to remain objective and "not let your excitement over the product concept spill over into the interview and bias the responses."

The interviews were divided almost evenly between those who favored the concept and those who did not. Those who did perceive value in the concept tended also to support other innovations such as the automated teller machine and charging foreign currency on credit cards. Those who would not use the currency exchange terminals wanted more human interaction and generally did not favor automation in any form; a fair proportion also had had previous problems exchanging foreign currency. However, even those who did not favor the currency exchange idea did seem to prefer the system of having 24-hour availability of the machines, and of using credit cards to get cash under emergency situations.

The respondents represent a diverse group of individuals ranging in age from 18 to 80 years, holding such different positions as oil executive, photographer, housewife, and customs officer. Primarily bound for Europe, Canada, and Mexico, the interviewees were mainly split between pleasure-seekers and those on business. Only three individuals interviewed were part of tour groups, and of these three, only one had previously traveled abroad. The majority of the others had been out of the United States before and had exchanged currency in at least one other country. Many had exchanged currency in remote parts of the world, including Morocco, Brazil, Australia, Japan, Tanzania, and Russia. Only five individuals had not exchanged money in airports at one time or another. The majority had obtained foreign currency in airports and exchanged money in airports, primarily in small denominations for use in taxi cab fares, bus fares, phones, and airport gift shops, as well as for food, tips, and drinks. Most respondents agreed a prime motive for exchanging money in airports was the security of having local currency.

Exchanging currency can become a trying ordeal for some individuals. They fear being cheated on the exchange rate; they cannot convert the foreign currency into tangible concepts (for example, "how many yen should a loaf of bread cost?"); they dislike lines and associated red tape; and many cannot understand the rates as posted in percentages. Most individuals exchange money in airports, hotels, or banks, but sometimes there are no convenient facilities at all for exchanging currency.

People like to deal with well-known bank branches, especially in airports, because they feel more confident

about the rate they are receiving. However, major fears of individuals are that money exchange personnel will not understand English and that they will be cheated in the transaction. Furthermore, a few people mentioned poor documentation when they exchange currency in foreign airports.

The travelers were divided as to whether they exchange currency before or after they arrive in the foreign country, but a few said that the decision depended on what country they were entering. If a currency, such as English pounds, could easily be obtained from a local bank before leaving the United States, they were more likely to exchange before leaving. However, in no case would the traveler arrange for currency beyond a week in advance. Most preferred to obtain the foreign currency on relatively short notice—less than three days before the trip. Of the individuals on tours, none planned to obtain currency in the foreign airport. Apparently, the tour guide had previously arranged for the necessary transportation from the airport to the hotels, and there would be only enough time to gather one's luggage and find the bus before it would depart, leaving no time to enjoy the facilities of the airport that required foreign currency. All three tour individuals did mention that they planned to obtain foreign currency once they arrived at the hotel. All individuals mentioned that they had secured their own foreign currency, but a few of the wives who were traveling with their husbands conceded that their spouses usually converted the currency in the foreign airport.

Very few of the interviewees had actually used an automated teller machine, but the majority had heard of or seen the teller machines on television. Those who had used the automated machines preferred their convenience and were generally satisfied with the terminal's performance. Many of those who had not used the automated teller machines mistrusted the machine and possible loss of control over their finances. Concerns about security and problems with the machines breaking down were also expressed. One woman described the teller machines as being "convenient, but cold." Apparently, many people prefer having human interaction when their money is concerned.

As noted earlier, approximately 30 of the respondents would favor the exchange terminals over their

normal airport currency exchange routine, while the same number would have nothing to do with the machines. However, the majority of potential users qualified their use by such features as competitive rates, knowing the precise charges, or knowing they could get help if something went wrong. Individuals who indicated no preference were included in the favorable category, simply because they would not refuse to try the machine. Most of the indifferent people seemed to indicate they would try such a machine if some type of introductory promotional offer was included, such as travel information, currency tips, or a better rate.

With virtual unanimity, the respondents felt that 24-hour availability made the currency exchange machines more attractive, yet that alone would not persuade the dissenters to use the terminals. Some individuals felt that a machine simply could not give the travel advice that could be obtained at the currency exchange booths.

The opportunity to charge foreign currency against a major credit card, such as MasterCard or Visa, was a definite plus in the minds of most respondents. One individual clearly resented the idea, however, feeling that he would "overspend" if given such a convenient way to obtain cash. Respondents offered a number of suggestions concerning implementations of the product concept and a number of specific product features:

1. Add information about the country.
2. Provide small denominations, and include coins.
3. Have it communicate in English.
4. Put in travelers checks to get cash.
5. Put in cash to get foreign currency.
6. Post rates daily.
7. Keep rates competitive and post charges.
8. Have television screen with person to describe procedure.
9. Place the machines in hotels and banks.
10. Have a change machine nearby that can convert paper money.
11. Place machine near existing currency exchange facilities for convenience when normal lines become long.
12. Demonstrate how to use the machine.
13. Use all bank credit cards.



### CASE 17-1

#### Medical Systems Associates: Measuring Patient Satisfaction<sup>1</sup>

Between 1975 and 1994, per-capita consumer expenditures for nursing home services grew at a faster rate than any other health-service category. During this period serious doubts were raised as to the quality of nursing-home care and service. These concerns were confirmed by the U.S. Department of Health, Education and Welfare (HEW) investigation in 1996 that led to substantial adverse publicity. Ray Baxter, of Medical Systems Associates (MSA), felt that most of the problems stemmed from the “product orientation” of the nursing homes; that is, they were “more concerned with selling the services and facilities they had than with providing a service mix designed to satisfy the needs and wants of the patients.” A study grant was received from HEW to test this broad proposition, and in particular (1) to study the process by which patients chose nursing homes and (2) to identify the determinants of patient satisfaction. In early 1997 Baxter had completed the fieldwork and was wondering what he could conclude about the latter objective from the relationships he had observed in the data.

#### Study Design

The primary vehicle for data collection was a 12-page personal interview questionnaire containing more than 200 variables. The questionnaire was generally divided into six major conceptual areas as follows:

1. Socioeconomics
2. Lifestyle measures (past and present)
3. Attitudes, interests, and opinions
4. Nursing-home selection process
5. Evaluation of nursing-home environment
6. Perceived health

Questionnaire development required considerable trial and revision. Questions had to be worded to be compatible with low educational levels because the median school grade attained by patients was under eight years. Five-point rating scales did not work, because the respondents rejected the supplied category descriptions and substituted broader descriptions of favorable, neutral, and negative. Standard projective techniques did not work well, apparently because many of the respondents were highly introspective.

The final questionnaire was administered in late 1996 to a stratified random sample of 122 patients in 16 nursing homes in Wisconsin. These homes were

selected from a universe of 93 homes. The sampling plan was designed to insure representativeness along the following dimensions:

1. Type of ownership (individual, partnership, corporate, nonprofit)
2. Level of care (skilled, limited, personal)
3. Type of assistance approval (Medicare and Medical Assistance, Medical Assistance only, and no assistance)
4. Size (small—less than 100 patients; medium—100 to 200 patients; and large—more than 200 patients)

In order to maintain approximate proportionate representativeness of the sample with the universe, the number of patients randomly selected from each sample-member nursing home was based on the size of the home.

Prior to the contact of respondents by the field interviewers, telephone calls or visits were made to the administrators of each nursing home in the sample, eliciting their cooperation. In general, administrators proved to be highly cooperative.

In contacting respondents, the interviewer was provided with a prearranged random sampling procedure, which he or she was instructed to follow. Upon completion of the basic interview, the interviewer requested that the respondent sign two “release forms” permitting the researchers subsequently to obtain financial data and to discuss medical details with the respondent’s doctor.

#### Analysis

The issue of the measurement of patient satisfaction and identification of determining variables was complicated by the special nature of the respondents. As Baxter noted, “Very few persons not in nursing homes want to be in a nursing home. And how satisfied are people with nursing homes when they have given up an established lifestyle because they now need services they would prefer not to need? Most persons, in and out of nursing homes, would opt for good health and independence. Because a nursing home represents an undesired portion of a life cycle, the problem, then, is to measure the satisfaction level of people who are, in an important sense, dissatisfied.”

Three approaches were used to measure “conditional satisfaction,” as it was termed. One was the *acceptance* of the necessity of entering a nursing home. The second was their *adjustment* to the disruption of established routines. The third was the patients’ direct *evaluation* of their physical (medical), attitudinal, and environmental satisfaction. Each of the elements in the evaluation measure was represented by a separate

TABLE 17-4

**Cross-Classification Results: Environmental Rating Index versus Selected Variables<sup>a</sup>**

Variable	Environmental Rating Index		
	Low	Medium	High
Nursing home religious affiliation			
Church-supported	15.8%	34.1%	45.9%
Nonsectarian	84.2	65.9	54.1
	100.0	100.0	100.0
Sample size	(19)	(41)	(61)
"Have you made any new friends here?"			
Yes	84.2	71.8	96.7
No	15.8	28.2	3.3
	100.0	100.0	100.0
Sample size	(18)	(39)	(60)
Number of friends			
"Just a couple"	31.2	21.4	5.1
"Just a few"	31.2	14.3	20.3
"Quite a few"	37.6	64.3	74.6
	100.0	100.0	100.0
Sample size	(16)	(28)	(59)

<sup>a</sup>All variables are associated with the ERI at a level of .05 or greater using the  $\chi^2$  test of significance.

index, based on combinations of responses to various questions, as follows:

1. An Environmental Rating Index (ERI) was based on answers to 14 questions involving satisfaction with such aspects of the nursing home as room size, physical layout, staff courtesy, medical care, cleanliness of facilities, food preparation, and so forth.
2. A Psychological Adjustment Index was based on a series of attitudinal questions involving such issues as perceived self-usefulness, self-perceived level of activity, perceived lifestyle change, self-perceived reaction of others to nursing-home patients, perceived difficulty in adjusting to nursing-home life (upon arrival), desire to relocate, and so on.
3. A Physical Well-Being Validity Index was based on a comparison of patients' self-perceived level of health with that indicated by medical records.

The focus of the initial analysis was on the determinants of the Environmental Rating Index (ERI). Cross-classification analyses with chi-square tests of significance were run for combinations of many variables with the ERI. Only three of the variables showed any statistical significance. (These variables, and the strength of the relationships, are summarized in Table 17-4.)

None of the other variables, such as the modernity of the home, size of the home, reasons for being in the nursing home, selection process, or patient mobility, were found to be significantly associated with the ERI. As Ray Baxter reviewed these results, he was wondering what conclusions he could draw, and whether other analyses would be required to examine the basic "product orientation" hypothesis with the ERI.

## Question for Discussion

1. How can you help Ray Baxter develop some implications based on the analyses?

CASE 18-1  
American Conservatory Theater

The American Conservatory Theater (ACT), a major repertory theater located in San Francisco, was completing its tenth season. The management team at ACT decided to conduct a major research study, intended to help their planning effort. A questionnaire was developed and mailed to their approximately 9,000 season subscribers. A return rate of 40 percent was obtained. A sample of 982 of these returned questionnaires was selected for analysis.

One of the major interests of ACT management was in developing an understanding of the dynamics of the process whereby individuals became ACT subscribers. To assist in this process the sample was divided into four groups according to their behavior pattern over the past five seasons:

- 1. Continual subscribers (32 percent)—subscribed all 10 seasons
- 2. Gradual subscribers (31 percent)—one or more seasons of attendance followed by becoming a subscriber
- 3. Sudden subscribers (21 percent)—became a subscriber without attending prior performances
- 4. Miscellaneous patterns (16 percent)

The existence of a substantial “sudden subscriber” group was surprising and ran counter to conventional belief among theater managers that people were first enticed to attend a few performances at a particular theater and only after they had had some positive experiences with this theater would they become subscribers.

The next step in the research study was to attempt to identify characteristics of the continual, gradual, and sudden subscriber groups that might be of use in understanding the segment differences and as inputs in the development of audience building and retention programs. Five variables appeared to be useful in this regard:

- 1. Years resident in the San Francisco Bay Area, measured on a scale ranging from 1 = two years or less to 5 = more than 20 years.
- 2. Age of subscriber, measured on a scale ranging from 1 = 25 years old or less to 5 = more than 65 years old.
- 3. Household income, measured on a scale ranging from 1 = \$15,000 per year or less to 4 = more than \$50,000 per year.
- 4. Whether the subscriber spent more than 20 hours a week watching TV, measured as a dummy variable: 1 if yes, 0 if no.
- 5. Attendance at six other cultural institutions (that is, ballet, Civic Light Opera, DeYoung Museum, Museum of Modern Art, opera, and symphony) in San Francisco. The attendance score is the number of the six different activities that the respondent attended at least once in the previous year.

Table 18-5 shows the differences between the mean scores for the three groups for these five variables.

Each respondent was asked which two benefits from a list of eight were the best reasons for purchasing a subscription. One of the benefits listed was the subscription price discount (ACT offered subscribers seven plays for the price of six). The percentage of each subscriber group that mentioned each benefit is shown in Table 18-6.

TABLE 18-5  
Subscriber Groups

	Mean Scores		
	Continual	Gradual	Sudden
Years resident (1 to 5 scale) <sup>a</sup>	4.32	3.68	3.53
Age (1 to 5 scale) <sup>a</sup>	3.34	2.74	2.86
Income (1 to 4 scale)	2.54	2.39	2.38
Cultural activities (0 to 6 scale) <sup>a</sup>	2.84	2.95	2.08
Twenty hours of TV (0 to 1 dummy variable)	0.31	0.26	0.38
Sample size	314	304	206

<sup>a</sup>Indicates that the differences between means are significant at the .01 level.

**TABLE 18-6**  
**Benefits Obtained by Subscribing to ACT**

Subscriber Group	Benefit <sup>a</sup>								
	Ease of Ordering (%)	Guaranteed Ticket (%)	Price Discount (%)	Priority Seating (%)	Discount on Special Plays (%)	More Certain to Attend (%)	New Play Series (%)	Support for Art (%)	Total Mentions
Continual subscriber	7.5	16.4	12.4	22.0	1.1	25.9	2.9	11.8	549
Gradual subscriber	8.2	16.5	12.5	22.2	1.1	28.5	3.0	7.9	558
Sudden subscriber	11.0	13.9	10.4	25.7	1.6	30.7	1.6	5.1	374
Total sample	8.6	15.8	12.0	23.0	1.2	28.1	2.6	8.6	1,481

<sup>a</sup>Each respondent could check a maximum of two benefits. Percentages are based on total number of benefits checked.

# Questions for Discussion

1. Does it surprise you that there are so many “sudden subscribers”? Why would a person subscribe (at a cost that could be as high as \$50 per person) instead of first trying it out? After reviewing Table 18-5, in what aspects would you say that such a person differed from other subscribers? Interpret the footnote in Table 18-5.
2. What does Table 18-6 say about the difference between the three groups? What are the other implications of Table 18-6 for ACT?

Prepared by Adrian B. Ryans, Charles B. Weinberg, and David A. Aaker as a basis for class discussion.

## CASE 18-2 Apple Appliance Stores

An experiment using a randomized design was conducted by the Apple Appliance chain of 300 retail stores. Four levels of advertising provided the experimental treatment: none, low, medium, and high. In addition, the stores were divided by store size into small, intermediate, and large. A random sample of eight stores was taken from each of the three store-size groups. Each set of eight stores was divided randomly

into four groups of two stores for the experimental treatment, as summarized in Table 18-7.

Stores sales were measured during the six-month period after the experiment started. Sales also were determined during the same period in the previous year. The difference between the sales during the two periods was the variable of interest. A plot of the sales change is shown in Figure 18-7.

In Table 18-8, an analysis of variance is shown. Exactly what statistical questions are answered by the table? What additional, unanswered questions may be of interest?

TABLE 18-7  
Research Design

		Store Size			
		Small	Medium	Large	Total
Advertising level	None	2	2	2	6
	Low	2	2	2	6
	Medium	2	2	2	6
	High	2	2	2	6
	Total	8	8	8	

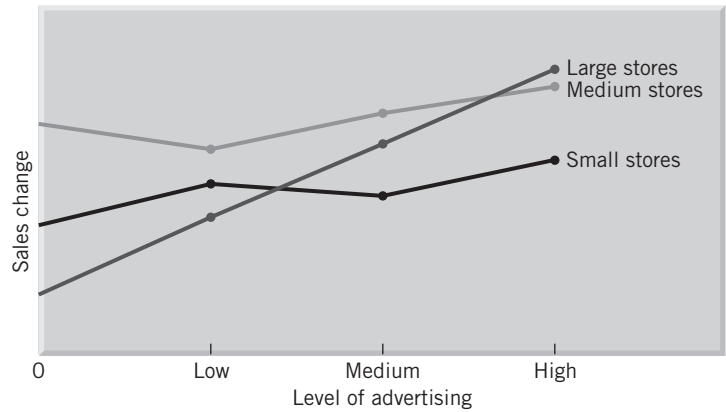


FIGURE 18-7  
Effect of advertising on sales.



**TABLE 18-8**  
**Analysis of Variance of Sales Changes**

Source of Variation	Sum of Squares	Degrees of Freedom (df)	Mean Sum of Squares	F-ratio
Advertising	360	3	120	3.0 <sup>a</sup>
Store size	88	2	44	1.1
Interaction	984	6	164	4.1 <sup>b</sup>
Unexplained variation	480	12	40	
Total	1,912	23		

<sup>a</sup>Significant at the .10 level.

<sup>b</sup>Significant at the .05 level.

## CASES FOR PART III

### Data Analysis

#### SPSS®

#### CASE III-1 The Vancouver Symphony Orchestra<sup>1</sup>

Daniel Gardiner and Charles Weinberg

At an afternoon meeting at the Vancouver Symphony Orchestra (VSO) offices, three executives, concerned with the marketing of the VSO, were discussing some of the challenges they currently faced.<sup>2</sup>

- Ed Oscapella: We've got to do something, and do it fast, to get out of this difficult situation. Time is running out of the 1987/88 season.
- Jane Corbett: From my point of view, I've got to find out who wants what: Do subscribers want something different than nonsubscribers? If so, what? We've got all this information that needs analyzing and I'm hoping it will be useful in marketing the 1987/88 season.
- E. Douglas Hughes: I've got to decide on an appropriate theme or themes to communicate to the segment(s) we go after. We've got to give the printers sufficient lead time to get our brochures out, so I need to know what to focus on in the promotion.

Armed with the computer data from a recent audience survey completed January 6, 1987 (four weeks earlier), the three knew that they had to sift through all the information very carefully. Within two weeks, they had to come up with a set of specific and actionable recommendations. The VSO's Board had already voted to cancel many concerts in June so as to lower its deficit.

All three agreed that perhaps their immediate task was to build ticket sales for the remaining four months of the 1986/87 season. The guest artist and concert schedule from February through June is shown in Marketing Research in Action III-1. During this time period, two subscription series were offered. The first was a six-concert "Seagram Pops" series. The second was a five-concert celebration series. In the prior year, a "Musically Speaking" series and "Jubilee" series were both offered.

#### Background

Situated midway between Asia Pacific countries and the United Kingdom and approximately 40 miles north of the United States, Vancouver is Canada's third largest city. Home to more than 1.3 million people, Vancouver is the largest metropolitan area in Western Canada and is an emerging center of international trade and investment.

Vancouver is rated one of the five most beautiful cities in the world, and in addition to varied recreational and sports attractions, Vancouver has many cultural and theatrical attractions as well. These include

<sup>1</sup>Ed Oscapella, Executive Director; Jane Corbett, Director of Marketing; and E. Douglas Hughes, Director of Communications for the Vancouver Symphony Orchestra.

<sup>2</sup>The data for this case are available; see your instructor.

### VSO Guest Artist and Concert Schedule February–June 1987

Date	Series	Conductor <sup>a</sup>	Soloist
Feb. 7, 9	CS#1	R. Barshai	I. Kipnis, harpsichord
Feb. 13	Recital		V. Ashkenazy, piano
Feb. 15, 16, 17	J#8	R. Barshai	C-L Lin, violin
Feb. 19, 20, 21(2)	Bal #2		P. N. Balet Vanc-Cantata Singers
Feb. 24(2)	School	P. McCoppin	K. Rudolph, pic., E. Volpe, hp.
Feb. 27, 28, Mar. 2, 3	POP#2	S. Dankworth	No soloists
Mar. 8, 9, 10	J#9	H. Holliger	Cond & ob soloist
Mar. 12	Recital		M. Perahia, piano
Mar. 14, 16	CS#2	G. Sebastian	B. Tuckwell, hn
Mar. 18	Benefit Concert		M. J. Fox, T. Banks, B. Zarankin, piano/ E. Northcott
Mar. 19, 20, 21(2)	Bal #3	E. Stafford	Royal Winnipeg Ballet
Mar. 24	SP Bal	P. McCoppin	R. Nureyev and Friends
Mar. 29, 30, 31	J#10	Y. P. Tortelier	W. Klien, piano
April 3, 4, 6, 7	POP#3	R. Hayman	The Cambridge Buskers
April 6	Tea & Trumpets	P. McCoppin	E. Northcott, sop, O. Lowry, host
April 12, 13, 14	J#11	K. Akiyama	L. Lortie, piano
April 18, 20	CS#3	T. Otaka	A. de Larrocha, piano
April 21	SP	P. McCoppin B. Buckley	Visions: Mission Andromeda
Apr. 24, 25, 27, 28	POP#4	M. Miller	No soloists
May 3, 4, 5	J#12	R. Barshai	Bach Choir: J. Coop, piano: M. Collins, sop; S. Graham, mezzo; G. Evans, tnr; D. Garrard, bass
May 9, 11	CS#4	R. Barshai	E. Mathis, sop
May 22, 23, 25, 26	POP#5	J. Everly and Bach Choir	S. Woods, sop/M. Paris, mezzo D. Eisler, tnr/B Hubbard, bari
May 30, June 1	CS#5	K. Akiyama	C. Parkening, guitar-May 30 Norbert Kraaft, guitar-June 1
May 31	F. Pops#3	P. McCoppin	Jarvis Benoit Quartet
June 5, 6, 8, 9	POP#6	K. Akiyama	M. Martin, soprano; B. Zarankin, piano Y. Guilbert, piano

<sup>a</sup>Rudolf Barshai is Music Director and Principal Conductor and Kazuyoshi Akiyama is Conductor Laureate of the VSO.

SOURCE: VSO files.

the Vancouver Museum, the Queen Elizabeth Playhouse, the Arts Club, the Vancouver Art Gallery, the Vancouver Opera Society, and the Vancouver Symphony Orchestra.

The VSO is one of the oldest cultural institutions in Vancouver, with its inaugural concert held in 1897. Regular seasons were offered in the 1930s when the orchestra came under the patronage of Mrs. B. T. Rogers. The orchestra's original repertoire included mostly big band

music. Over the years, the repertoire expanded to reflect more classical and romantic symphonic works, changing in response to the tastes of the various musical directors. As well, the regular season was lengthened and the number of scheduled programs and series increased.

The orchestra, among the 10 largest in North America, has been plagued with financial, managerial, and artistic problems over the past two years.

Subscription revenue has steadily declined in the last five years, putting pressure on the symphony to emphasize sales of single tickets and to heavily promote each event. With 122 scheduled performances in the 1986/87 season, a 15 percent decrease in regular subscribers (to the "Jubilee" and "Musically Speaking" series), the sluggish economic climate in Vancouver post-Expo '86, and a deficit of \$811,000, the Vancouver Symphony Orchestra faced an enormous challenge just to maintain the status quo, let alone reduce its deficit.

While small consolation, symphony orchestras throughout North America were going through difficult times (*Newsweek*, January 5, 1987, pp. 54–56). In September 1986, the Oakland Symphony declared bankruptcy and closed its doors; others, such as the San Diego Symphony and the one in Halifax, Nova Scotia, had suspended operations for a season or more. The Chicago Symphony, despite playing to a 98 percent capacity, was able to pay back only 62 percent of its \$20 million operating budget. On the other hand, the symphonies in Montreal and Hamilton were enjoying record attendance levels and renewed financial support.

### **Decline in Attendance**

At one point in the 1970s, the VSO enjoyed the largest subscription base of any orchestra in North America. However, the number of subscribers has been steadily declining. In 1985/86, subscriptions dropped by 18 percent. In 1986/87, the decrease in subscriptions could approach 20 percent, for an overall decline since 1984/85 of over 30 percent. Plans were being made to revise the

subscription packages for the 1987/88 season in order to reverse this trend. However, the program for the current season was set.

Single-ticket sales had also been decreasing, but at a slower rate than subscriptions and were becoming relatively more important in terms of total attendance. They accounted for 36,701 tickets sold in the 1985/86 season. In 1984/85, regular subscribers accounted for 79 percent of the total attendance. However, the proportion of subscribers for 1986/87 was projected at only 70 percent of total attendance.

### **The Free Concert**

One of the ways to offset declining revenues may be to focus on nonsubscribers. After a date to make a recording of the VSO was postponed, it was decided in early December that a "free concert" be given in order to obtain "trial" by the nonsubscriber group. This concert was held in the evening on Tuesday, January 6, 1987. People had to go to the VSO's administrative office located three miles away from the Orpheum Theater (where the VSO performed) to pick up tickets. After being heavily promoted on a local FM radio station, the concert was an immediate "sellout" with all 2,761 tickets distributed. So as to obtain information about the concertgoers in a cost-effective manner, a questionnaire was developed and given to audience members. Because of time constraints, an initial draft of the questionnaire was pretested only on VSO office employees. A photoreduced copy of the survey is shown in Marketing Research in Action III-2 along with relevant response

## **MARKETING RESEARCH IN ACTION III-2**

### **Audience Questionnaire VANCOUVER SYMPHONY**

Audience Questionnaire

Dear Patron,

We at the Vancouver Symphony Orchestra want very much to provide the best possible musical experience for our audiences and the Vancouver community as a whole. In our continuing efforts to improve our performances and make your concert-going as satisfying and enjoyable as possible, we ask that you take a little time to answer the following questions. Your opinions and suggestions are extremely important and will be most useful in helping us to evaluate our programs, as well as our manner of presentation.

When you leave tonight's concert, please be so kind as to place the completed questionnaire in one of the special boxes located near the exits and the VSO Gift Shop. If you do not have time to complete it this evening, we would request that you mail it to us at your convenience. On behalf of the members of the orchestra and the staff, thank you very much for your assistance.

Edward Philip Oscapella  
Executive Director  
Vancouver Symphony Orchestra

400 East Broadway, Vancouver, B.C., V5T 1X2—875-1661

1.<sup>a</sup> Are you a subscriber (i.e., purchase series tickets) to the VSO?

19%	1-1	___ Yes, currently
29	1-2	___ No, but formerly
51	1-3	___ Never subscribed

2. Have you ever purchased tickets to an individual VSO event?

22%	2-1	___ Yes, since September 1986
51	2-2	___ Yes, but only before September 1986
26	2-3	___ No

3. Since September 1986, how many times have you attended a VSO performance?

56%	3-1	___ I haven't attended a VSO performance since September 1986
18	3-2	___ Attended once
12	3-3	___ Attended 2-3 times
7	3-4	___ Attended 4-5 times
5	3-5	___ Attended more than 5 times

4. If you have ever attended previous VSO performances, we would like to know why. Please indicate the THREE most important reasons from the list below. (1 = Most Important, 2 = Second-Most Important, 3 = Third-Most Important). Write 1, 2, or 3 on the appropriate lines.

i. <sup>b</sup>	ii.	iii.	
42% <sup>a</sup>	19%	39%	(4- ) ___ I wanted to see and hear classical music performed live
2	16	81	(5- ) ___ The VSO under Maestro Rudolf Barshai is an excellent orchestra
7	44	49	(6- ) ___ I think the Orpheum is an excellent setting for great music
13	31	54	(7- ) ___ The choice of music appealed to me
13	37	50	(8- ) ___ I wanted to see famous guest artists and conductors

Please list any additional reasons below:

(9- ) \_\_\_\_\_

(10- ) \_\_\_\_\_

(11- ) \_\_\_\_\_

5. Overall, what is your rating of the VSO on the following characteristics? Put a checkmark on the appropriate lines.

	EXCELLENT (4)	GOOD (3)	FAIR (2)	POOR (1)	
___ Performance of Orchestra	65% <sup>a</sup>	33%	1%	0%	(12- )
___ Guest Artists	43	53	2	2	(13- )
___ Music Selection	22	59	10	8	(14- )
___ Acoustics in Orpheum	56	39	3	1	(15- )
___ Prices of Tickets	13	46	35	6	(16- )
___ Convenience of Parking	12	41	33	13	(17- )
___ General Atmosphere of Orpheum	63	34	2	1	(18- )
___ Service from VTC-CBO	26	57	13	4	(19- )

6. Please give us your opinion about the amount of each type of music played by the VSO.

	TOO MUCH (3)	ABOUT RIGHT (2)	TOO LITTLE (1)	
___ Classical (e.g., Bach, Mozart)	6% <sup>a</sup>	72%	22%	(20- )
___ 20th century music (e.g., Debussy, Stravinsky)	14	71	14	(21- )
___ Pops (e.g., Mantovani, Williams)	20	62	18	(22- )
___ Canadian (e.g., Schaeffer)	24	60	16	(23- )

## MARKETING RESEARCH IN ACTION III-2 (continued)

7. Below are presented eight pairs of events characterized by reputation of performer, seating arrangements, and single ticket prices. Assuming everything else about each pair is identical, please check your preference in each case.

International Performers & \$20 price	$\frac{44\%}{24-1}$ vs. $\frac{56\%}{24-2}$	New, Promising Performers & \$8 price	Orchestra & \$20 price	$\frac{26\%}{28-1}$ vs. $\frac{74\%}{28-2}$	Balcony & \$8 price
Orchestra & \$20 price	$\frac{30}{25-1}$ vs. $\frac{70}{25-2}$	Balcony & \$14 price	International Performers & \$20 price	$\frac{63}{29-1}$ vs. $\frac{37}{29-2}$	New, Promising Performers & \$14 price
International Performers & \$14 price	$\frac{77}{26-1}$ vs. $\frac{23}{26-2}$	New, Promising Performers & \$8 price	Orchestra & \$14 price	$\frac{46}{30-1}$ vs. $\frac{54}{30-2}$	Balcony & \$8 price
International Performers & Balcony	$\frac{67}{27-1}$ vs. $\frac{33}{27-2}$	New, Promising Performers & Orchestra	International Performers & Orchestra	$\frac{59}{31-1}$ vs. $\frac{41}{31-2}$	International Performers & Balcony

8. What concert times do you prefer?

12% <sup>a</sup>	32-1	___ Matinees (2:30 P.M.)
34	32-2	___ 7:30 P.M.
55	32-3	___ 8:00 P.M.
7	32-4	___ 8:30 P.M.

9. What day of the week do you prefer to attend concerts?

18% <sup>a</sup>	33-1	___ Sunday
21	33-2	___ Monday
27	33-3	___ Tuesday
17	33-4	___ Wednesday
17	33-5	___ Thursday
25	33-6	___ Friday
32	33-7	___ Saturday

10. From where do you get most of your information about VSO events?

47% <sup>a</sup>	34-1	___ From VSO mailings
46	34-2	___ From ads in daily newspapers (e.g., <i>Sun</i> , <i>Province</i> )
3	34-3	___ From ads in community newspapers
32	34-4	___ From radio ads
3	34-5	___ From television ads
10	34-6	___ From reviews and feature stories
	34-7	___ Other—please specify $\frac{\text{word-of-mouth } 9\%}{\text{nonword-of-mouth } 3}$

11. Which daily newspaper do you read most often?

71% <sup>a</sup>	35-1	___ <i>Vancouver Sun</i>
24	35-2	___ <i>Province</i>
7	35-3	___ <i>Globe and Mail</i>
6	35-4	___ Other—please specify _____

12. Are you

39% <sup>a</sup>	36-1	___ Male
61	36-2	___ Female



## MARKETING RESEARCH IN ACTION III-2 (continued)

13. To which age group do you belong?

- |                 |      |                 |
|-----------------|------|-----------------|
| 2% <sup>a</sup> | 37-1 | ___ Under 18    |
| 6               | 37-2 | ___ 18-24       |
| 16              | 37-3 | ___ 25-34       |
| 17              | 37-4 | ___ 35-44       |
| 21              | 37-5 | ___ 45-54       |
| 22              | 37-6 | ___ 55-64       |
| 19              | 37-7 | ___ 65 and over |

14. Please specify your postal code V\_\_\_ \_\_\_ \_\_\_ See EXHIBIT  
38 39 40 41 42

15. If you prefer to purchase tickets to individual events (as opposed to subscription tickets), why is this so? Please indicate below.

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16. All things considered, what would it take to get you to attend VSO performances on a regular basis?

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THANK YOU FOR YOUR COOPERATION IN COMPLETING THIS QUESTIONNAIRE, AND  
THANK YOU FOR YOUR PATRONAGE OF THE VANCOUVER SYMPHONY.

When you leave tonight's concert, please place the completed questionnaire in one of the special boxes located near the exits and the VSO Gift Shop. If you do not have time to complete it this evening, we would request that you mail it to us at your convenience.

Audience Survey  
c/o Vancouver Symphony Society  
400 East Broadway  
Vancouver, B.C.  
VST 1X2

<sup>a</sup>Percentages given in questionnaire are for all respondents.

<sup>b</sup>i = most important; ii = 2nd or 3rd most important; iii = not ranked in top 3.

frequencies for each question for the entire sample. Respondents had the choice of dropping off the instrument at various places in the Orpheum or mailing it in later. A total of 614 completed questionnaires from the 2,400 people actually in attendance were returned. Since almost everyone attended in groups of two or more, this was considered a good response rate by management.

The data from the survey is in a file called VSO. Marketing Research in Business III-3 provides a sequential listing of the variables in the file and each variable corresponds to a specific question in the survey. For example, SUBSCRBR is the first variable and corresponds to Question 1 on the questionnaire. POSTCOD5 is the last variable and refers to the sixth digit of the respondent's postal code as asked by Question 14.

Variable Listing							
Variable	Rec	Start	End	Variable	Rec	Start	End
SUBSCRBR	1	1	1	MATINEE	1	32	32
INDPURCH	1	2	2	SVNTHRTY	1	33	33
ATTEND	1	3	3	EIGHT	1	34	34
LIVEMUS	1	4	4	EGHTHRTY	1	35	35
VSOGOOD	1	5	5	SUNDAY	1	36	36
ORPGOOD	1	6	6	MONDAY	1	37	37
CHOICE	1	7	7	TUESDAY	1	38	38
FAMOUS	1	8	8	WEDNESDAY	1	39	39
OTHER1	1	9	9	THURSDAY	1	40	40
OTHER2	1	10	10	FRIDAY	1	41	41
OTHER3	1	11	11	SATURDAY	1	42	42
ORCHSTRA	1	12	12	VSOMAIL	1	43	43
GUESTS	1	13	13	PAPERADS	1	44	44
SELETION	1	14	14	COMMPAPR	1	45	45
ACOUSTIC	1	15	15	RADIOADS	1	46	46
PRICES	1	16	16	TVADS	1	47	47
PARKING	1	17	17	STORIES	1	48	48
ATMSPERE	1	18	18	OTHRSRCE	1	49	49
SERVICE	1	19	19	VANCSUN	1	50	50
CLASICAL	1	20	20	PROVINCE	1	51	51
TWENTITH	1	21	21	GLBEMAIL	1	52	52
POPS	1	22	22	OTHRPAPR	1	53	53
CANADIAN	1	23	23	GENDER	1	54	54
PAIR1	1	24	24	AGEGROUP	1	55	55
PAIR2	1	25	25	POSTCOD1	1	56	56
PAIR3	1	26	26	POSTCOD2	1	57	57
PAIR4	1	27	27	POSTCOD3	1	58	58
PAIR5	1	28	28	POSTCOD4	1	59	59
PAIR6	1	29	29	POSTCOD5	1	60	60
PAIR7	1	30	30	RESPID	1	61	61
PAIR8	1	31	31				

RESPID refers to respondent identification and was inserted after receiving the research instruments. It is to be noted that no quantitative analysis can readily be performed on Questions 15 and 16.

Given all this information, Ed, Jane, and Doug sat down to analyze it and work on a report for the Board of Directors. They knew that any recommendation(s) they make must be supported by the data.

## Questions for Discussion

1. What are the strengths and weaknesses of this market research project?
2. What information can you derive from the data? State *specifically* the managerial questions you are

hoping to resolve and how the data would help you. Make at least one specific recommendation based on the results of this research.

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## CASE III-2 POPULAR PIZZAS

### Identifying Consumer Preferences

Popular is a local pizza joint with outlets at two locations in Hartford, Connecticut. Apart from a wide range of pizzas, it also serves an indigenously blended fruit smoothie: Rejoice. The managers of Popular were of the opinion that understanding customer preferences and building customer profiles would provide them with better scope for business expansion along with added revenues and profits.

Having reached a unanimous decision to hire an external marketing consultant, the management invited Dr. K, the president of IMC, a local marketing firm, to its board meeting. Dr. K was provided a report on the shop's current operations and informed of their need to establish a profile of their customers and their preferences. Dr. K suggested that in order to win new customers and, in turn, to expand their customer base, a study had to be conducted on the customers of the competition. Also, the option of converting Popular into a pizza and smoothie shop was decided to be explored, laying stress on the Rejoice brand.

Prior to his second meeting with the management, Dr. K gathered some background information on the pizza industry, current trends, and preferences for various varieties of pizzas. He also talked informally with some of his friends who had visited pizza shops. With this background, he was ready to discuss preliminary research purposes and objectives, which could be used as a guide to the design of the study.

During the second meeting with the Popular management, a quick agreement was reached. The primary purpose of the study was to find the preference patterns of Popular's customers and customers of the competition and to establish a profile of a typical customer. The following research objectives consist of a research question and a statement of the study scope:

#### Research Objective 1

**Question:** Study consumption habits of pizza and smoothie by Popular customers and by customers of competition.

**Scope:** Customers of Popular and competition

The customers of competition were included in the study to identify Popular's strengths and weaknesses with respect to competition and also to win customers from competition.

#### Research Objective 2

**Question:** Develop demographic and lifestyle profile of the customers of Popular and customers of competition.

**Scope:** Customers of Popular and competition

The demographic and lifestyle activities of the customers help in establishing a typical profile of the

customers of Popular; this helps in direct marketing and changing the atmosphere and décor of its shops to suit its customer lifestyle.

#### Research Objective 3

**Question:** Identify relevant strategies for growth of Popular in the city and neighboring towns.

**Scope:** Customers of Popular

This helps in exploring the possibility of a smoothie shop and new locations for Popular shops in the city and neighboring towns.

#### Choosing a Research Approach for the Popular Study

Seldom is a data collection method perfectly suited to a research objective. A successful choice is one that has the greatest number of strengths and the fewest weaknesses relative to the alternatives. Often this is achieved by combining several methods to take advantage of their best features and minimize their limitations. This was what Dr. K. had to do to get the amount of information required by the research objectives and still remain within the budget.

From the beginning it was clear that the overall research approach would involve preliminary qualitative research, followed by a survey, to understand the current trends in pizza and smoothie consumption and test the specific hypotheses. Dr. K proposed to use magazines such as Pizza Reporter and financial reports of leading pizza companies to identify the current trends in the industry. An executive summary was then prepared based on this secondary research. The problem was to decide the method of data collection.

The principal survey options were to mail questionnaires, use personal or telephone interviews, or use focus-group discussions. Each, however, had a serious drawback. Personal interviews using trained interviewers were simply too costly and would have been feasible only with a sample that was too small. Focus-group discussions would have provided only qualitative information. The questionnaire could have been administered by mail, but experience suggested that the response rates would be low unless substantial incentives and follow-ups were used. The solution was a purchase intercept technique in which customers who visited the Popular shop were asked to fill out a questionnaire. An incentive was used to boost the response rate of the respondents. The advantage of the telephone in reaching large samples economically was utilized to establish contact with the customers of competition in areas surrounding the locations of competing pizza shops in that city.

The research approach was successful in achieving a high response rate at a low cost per completed interview. The key to success was in matching the approach to the

study objectives and the characteristics of the population, notably, the presence of an up-to-date listing, the limited geographic area to be covered, and the participants' inherent interest in the subject of the survey.

It was just another pleasant afternoon in Hartford, Connecticut. Catherine Jones, president of Popular Pizza, a local pizza shop with two outlets in the city, had closed her shop early, as her employees were long requesting a half-day off to do some Christmas shopping. On her way back home, Catherine Jones was giving a cursory look at the financial report of her shops over the past six months. It was business as usual, but the growth rate had fallen and the profits were stagnant during the last two years. Popular's exotic toppings helped it differentiate itself in a highly competitive market. Popular's business picked up at a steady pace and Catherine Jones was able to break even in the first two years. But after that, entry of new players in the market and changing consumer preferences stymied the growth rate, and profits have remained the same for the past two years. Catherine Jones felt the urgent need to make some changes in the shop's atmospherics and menu to bring the growth rate back to a steady pace.

Catherine Jones decided to consult a local marketing firm, Innovative Marketing Consultants (IMC), to find the consumer's preferences and trends in the pizza industry and to get a clear idea of her consumer base. She also wanted to explore the option of having a smoothie shop inside Popular. Catherine Jones had observed that pizza-smoothie combinations were popular among families with kids, but the indigenously blended fruit smoothie had appeal for the health conscious single customer or groups taking a break from office work as well. Catherine Jones also wanted to implement changes by spring, to realize profit gains at the earliest.

Taking into consideration Catherine Jones's urgency, Dr. K, the president of IMC, decided to use the Internet for his secondary data search. He used different search engines—Infoseek, Lycos, and Alta Vista—to get a wide coverage of the 'Net. The Internet was very useful in gathering information about the current trends and

preferences in the pizza industry. He used customized search services to get financial reports of pizza companies. This gave him an estimate of the size of the market. Several online periodicals (for example, Pizza Marketing Quarterly) allowed Dr. K to search for articles on specific topics. This helped him save time, compared to the laborious process of scanning periodicals manually. The Internet was also used to gather information about the trends in the smoothie industry. Census data on retail trade came in very handy in giving an estimate of the smoothie market in Hartford.

Using his information from the Internet, Dr. K was able to prepare an executive summary on the pizza industry in a couple of days. He divided the summary into subcategories that included size of the market, trends, and future estimates. The executive summary formed the basis for formulating the issues to be addressed specific to Popular during primary data collection. The usage of the Internet for secondary data collection helped Dr. K save time and complete the research before spring, in spite of his busy schedule.

### Choice of Survey Methods for Popular's Study

A market intelligence effort to gather information through surveys was undertaken over a five-week period in each store. The customers who visited Popular over a period of time (purchase intercept technique) formed a sample for the survey. This sample was a good prospect for accurate information. Sample sizes of 200 and 100 consumers were selected from the two locations A and B, respectively. To obtain information about customers of the competition, a telephone survey was conducted in the city. Random samples of respondents having different prefixes were selected. The sample targeted residents in and around locations of competing pizza joints in the city. A sample of 400 respondents was selected at random from the preselected prefixes. The respondents were asked about their frequency of visits to pizza shops, the factors influencing their choice of pizza joints, the service they expect at the pizza

## Research Objectives for the Popular Study

Research Objectives	Information Requirements
1. What are the consumption habits of pizza and smoothie by Popular customers and competition?	General attitudes and preferences of customers of Popular and strengths and weaknesses of Popular with respect to competition.
2. Develop demographic and lifestyle profile of the customers of Popular and customers of competition.	The demographic details such as age, number of family members, and income. Lifestyle activities of customers such as hobbies.
3. Identify relevant strategies for growth of Popular.	The strengths and weaknesses of Popular with respect to competition, the preferences of customers and trends in the industry.

shop, demographics, and lifestyle activities. Datasets for Popular Pizzas in Excel and SPSS formats, along with a copy of the questionnaire used for customers of Popular and customers of competition and a coding sheet is also available in the diskette accompanying this book as well as the website accessible using the link [http://www.drvkumar.com/books/book\\_mr9.html](http://www.drvkumar.com/books/book_mr9.html).

Figures III-1, III-2, III-3, and III-4 show the results of the data analysis of the Popular study. Figure III-1 shows the frequencies and percents obtained about the age of people visiting Popular. It can be seen that more than 70 percent of the respondents lie within the 19–34 age group. This implies that Popular’s customer base is predominantly young and that ambience inside Popular and the menu should reflect the young generation’s preferences.

It can also be seen from Figure III-2 that there does not exist significant gender differences with regard to

patronage of Popular. Figure III-3 shows that a majority of the customers are very satisfied with the product range and the product quality of Popular. However, the figure also indicates that the customers are not happy about the price of Popular Pizza. Location, room, and waiting time are also considered satisfactory, while cleanliness has a very high rating by most of the customers.

Figure III-4 shows the cross-tabulations of the intentions of the customers to revisit and the age and gender of the respondents, respectively. It can be seen that the people in the age group of 19–34 who are also Popular’s major customers, are also more likely to revisit. These facts enable Popular to plan its future course of action.

**FIGURE III-1**

Age (years)	Age		Cumulative Frequency	Cumulative Percent
	Frequency	Percent		
<18	7	13.5	7	13.5
19–24	24	46.2	31	59.6
25–34	14	26.9	45	86.5
35–44	2	3.8	47	90.4
45–64	5	9.6	52	100.0
Frequency missing = 1				

**FIGURE III-2**

Gender	Gender		Cumulative Frequency	Cumulative Percent
	Frequency	Percent		
Male	27	52.9	27	52.9
Female	24	47.1	51	100.0
Frequency missing = 2				



**FIGURE III-3**

Rating of Popular on Product Range				
Satisfaction Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	4	7.7	4	7.7
3	22	42.3	26	50.0
4	26	50.0	52	100.0
Frequency missing = 1				
Rating of Popular on Product Quality				
Satisfaction Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	1	1.9	1	1.9
3	17	32.7	18	34.6
4	34	65.4	52	100.0
Frequency missing = 1				
Rating of Popular on Price				
Satisfaction Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	4	8.2	4	8.2
2	13	26.5	17	34.7
3	21	42.9	38	77.6
4	11	22.4	49	100.0
Frequency missing = 4				
Rating of Popular on Location				
Satisfaction Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	5.9	3	5.9
2	4	7.8	7	13.7
3	16	31.4	23	45.1
4	28	54.9	51	100.0
Frequency missing = 2				
Rating of Popular on Room for Dine-in				
Satisfaction Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	1	2.0	1	2.0
2	6	12.2	7	14.3
3	22	44.9	29	59.2
4	20	40.8	49	100.0
Frequency missing = 4				
Rating of Popular on Waiting Time				
Satisfaction Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	6	11.8	6	11.8
3	13	25.5	19	37.3
4	32	62.7	51	100.0
Frequency missing = 2				

FIGURE III-3 (Continued)

Satisfaction Level	Rating of Popular on Clean Atmosphere		Cumulative Frequency	Cumulative Percent
	Frequency	Percent		
1	2	4.0	2	4.0
2	4	8.0	6	12.0
3	7	14.0	13	26.0
4	37	74.0	50	100.0
Frequency missing = 3				
4—Very satisfied				
3—Quite satisfied				
2—Somewhat satisfied				
1—Not satisfied				

FIGURE III-4

Table of Revisit Intention (Q8) by Age (Q18)						
Q8 Frequency Percent	Q20					
	1	2	3	4	5	Total
1	0	1	0	0	0	1
	0.00	1.96	0.00	0.00	0.00	1.96
2	0	0	1	0	0	1
	0.00	0.00	1.96	0.00	0.00	1.96
3	0	1	0	0	0	1
	0.00	1.96	0.00	0.00	0.00	1.96
5	7	21	13	2	5	48
	13.73	41.18	25.49	3.92	9.80	94.12
Total	7	23	14	2	5	51
	13.73	45.10	27.45	3.92	9.80	100.00
Frequency Missing = 2						
Table of Revisit Intention (Q8) by Gender (Q21)						
Q8 Frequency Percent	Q21					
	1	2	Total			
1	1	0	1			
	2.00	0.00	2.00			
2	0	1	1			
	0.00	2.00	2.00			
3	0	1	1			
	0.00	2.00	2.00			
5	26	21	47			
	52.00	42.00	94.00			
Total	27	23	50			
	54.00	46.00	100.00			
Frequency Missing = 3						

## CASE 19-1 The Seafood Grotto

A study involving 158 families, selected randomly from a large New England city, was designed to help The Seafood Grotto, operators of several fine seafood restaurants, to determine who their customers were. Four segmentation variables were explored: age, income,

social class, and life-cycle stage. Social class was determined using Warner's Index of Status Characteristics, which uses the variables of occupation, income source, house type, and dwelling area. Life cycle was based on four categories: under 40 without children, under 40 with children, 40 and over with children in the household, and 40 and over without children in the household.

**TABLE 19-8**  
**Correlation Coefficients for the Use/Nonuse and Frequency of Use of an Entertainment Activity**

Entertainment Activity	Use/Nonuse				Frequency of Use			
	Income	Social Class	Age	Life Cycle	Income	Social Class	Age	Life Cycle
Bowl	-.08	-.15 <sup>b</sup>	.28 <sup>a</sup>	.38 <sup>a</sup>	.12	-.04	.35	.25 <sup>b</sup>
Movies	.25 <sup>b</sup>	.01	.38 <sup>a</sup>	.46 <sup>a</sup>	-.14	.35 <sup>a</sup>	-.44 <sup>b</sup>	-.49 <sup>a</sup>
Ski	.18 <sup>b</sup>	-.02	.27 <sup>a</sup>	.36 <sup>a</sup>	-.05	-.25 <sup>b</sup>	-.08	-.07
Golf	.43 <sup>a</sup>	.06	-.08	.04	.06	.32	.15	.15
In-state travel	-.20 <sup>a</sup>	-.02	.26 <sup>a</sup>	.25 <sup>a</sup>	.09	.06	.14	.05
Out-of-state travel	-.24 <sup>b</sup>	.10	-.07	.06	.13	-.05	-.03	-.07
Foreign travel	.14	.09	-.01	.01	— <sup>c</sup>	— <sup>c</sup>	— <sup>c</sup>	— <sup>c</sup>
Dine at expensive restaurant	.27 <sup>a</sup>	.02	.08	.17 <sup>b</sup>	.12	.23 <sup>a</sup>	.13	.17 <sup>b</sup>
Dine at moderately priced restaurant	-.22 <sup>a</sup>	-.03	.17 <sup>b</sup>	.20 <sup>a</sup>	.19 <sup>b</sup>	-.12	.17 <sup>b</sup>	.08
Dine at inexpensive restaurant	-.14	-.16 <sup>b</sup>	.25 <sup>b</sup>	.31 <sup>a</sup>	.10	-.25 <sup>a</sup>	-.07	-.07
Nightclubs	.12	.08	.32 <sup>a</sup>	.41 <sup>a</sup>	.28 <sup>a</sup>	.11	-.42 <sup>a</sup>	-.34 <sup>a</sup>
Cocktail parties	-.23 <sup>a</sup>	.03	.03	.16 <sup>b</sup>	.15	-.02	.05	.01
Professional athletic events	-.32 <sup>a</sup>	.01	.21	.33 <sup>a</sup>	-.13	.07	-.09	-.12
College/high school athletic events	-.25 <sup>a</sup>	-.06	.11	.17 <sup>b</sup>	.35 <sup>a</sup>	.23 <sup>b</sup>	-.12	-.22 <sup>b</sup>

<sup>a</sup>Significant at 0.1 level or better.

<sup>b</sup>Significant at .05 level or better.

<sup>c</sup>Foreign travel was excluded from this part of the analysis because it rarely occurs more than once a year.

Each segmentation variable was correlated with frequency-of-use descriptions of various entertainment activities, ranging from about once a year to more than once a week, and with a variable that simply noted whether the selected entertainment activities were used

during the past year. Using Table 19-8, answer the following questions.

Source: Prepared by Robert D. Histrich, Michael P. Peters, and David A. Aaker as a basis for class discussion.

## Questions for Discussion

1. Can you say which segmentation variable is the most relevant for expensive restaurants?
2. Looking at the data across activities, which variables are the most relevant?
3. Explain the statistical test that is reported.

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## CASE 19-2

### Ajax Advertising Agency

As a model builder in the marketing services group of a large advertising agency, you are pondering your latest assignment. The task is to develop a model that will predict the success of new, frequently purchased consumer products. Many clients rely heavily on new products and need to be able to predict the likelihood of success before undertaking expensive test markets. They also need guidance in developing products and marketing programs that will be successful in the test market and, ultimately, in national distribution.

Preliminary discussions with a set of client representatives and other agency people already have provided some tentative conclusions:

1. It has been decided that to support the model developing and testing process, a panel of 1,200 households would be established in a city often used as a test market. Thus, as new products were introduced into this city, the panel could be used to monitor their performance. Over a period of three years it was expected that 50 or 60 products could be observed.
2. It was suggested that product success depends on obtaining consumer knowledge of the product, enticing people to try the product, and then achieving respectable levels of repurchase. Thus, it was concluded that a useful model would be one that was capable of predicting and explaining the following three variables: (1) product knowledge, (2) trial, and (3) repeat purchase.

### Assignment 1

Develop a model of product knowledge. Specify variables, indicating precisely how they should be measured in any test application of the model. Indicate how

Operationally, these variables would be measured by taking a consumer survey covering 250 homemakers randomly selected from the 1,200-member panel. These homemakers would be contacted by telephone. The variables would be defined as follows:

1. *Product knowledge*: Percentage who were able to recall advertising claims accurately at the end of 13 weeks.
2. *Trial*: Percentage who made one or more purchases of the product during the first 13 weeks.
3. *Repeat purchases*: Percentage who had purchased and used the product who repurchased it or planned to do so.

The immediate task was to develop three sets of explanatory or independent variables that would explain and predict the three dependent variables. In addition, it would be necessary to specify the nature of the causal relationship—whether it would be, for example, additive or multiplicative and/or linear or nonlinear.

One variable seemed obvious. Product knowledge should depend on the level of advertising. Advertising could be measured in several ways. It would be possible, by monitoring local and national media, to estimate the average number of media impressions (advertisement exposures) per household. It was not clear, however, if advertising's impact on product knowledge was linear.

Several other tasks must be faced eventually. For instance, the model will need to be tested and validated. The database to be collected could be used for this purpose. The variables to be included in the database will need to be specified soon. Also, thought will have to be given to how and when managers should use the model.

such a model could be tested. Prepare a one-page paper summarizing your model.

### Assignment 2

Develop a model of trial purchase and a model of repeat purchase. Indicate how you would use such a

set of models if you were coming out with a new type of packaged cake mix.

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## CASE 19-3

### Election Research, Inc.

Election Research, a marketing research firm specializing in political campaigns, did an analysis on the 1996 California state legislature elections. Data were obtained

for 72 districts and included the total number of registered voters by district, their party affiliation, the number of votes received by each candidate, the campaign expenditures of each candidate, and the identity of the incumbent, if one existed.

Of the 72 districts used, 27 had Republican winners and 45 had Democratic winners. There were 55

incumbent winners and 17 nonincumbent winners. The winners received an average of 66.6 percent of the votes cast and incurred 63.2 percent of the advertising expenses. The winner's advertising expenditure averaged \$18,031 per district (\$22,805 without an incumbent and \$10,710 with an incumbent).

The following are the results of three regression runs (the numbers in parentheses are the  $t$ -values):

All districts:

$$\begin{aligned} WSV &= 0.240 + 0.174WSTE(4.82) \\ &\quad + 0.414WSRV(4.60) + 0.751(7.01) \\ r^2 &= .535 \\ N &= 72 \end{aligned}$$

Incumbent districts:

$$\begin{aligned} WSV &= 0.329 + 0.157WSTE(3.67) \\ &\quad + 0.409WSRV(6.07) \end{aligned}$$

$$r^2 = .440$$

$$N = .55$$

Nonincumbent districts:

$$\begin{aligned} WSV &= 0.212 + 0.234WSTE(3.39) \\ &\quad + 0.399WSRV(3.21) \\ r^2 &= .615 \\ N &= 17 \end{aligned}$$

where

$WSV$  = winner's share of total votes cast  
 $WSTE$  = winner's share of total advertising expenditures  
 $WSRV$  = proportion of registered voters that are registered to the winner's political party  
 $I$  = winner's incumbency dummy variable. A dummy variable is a 0–1 variable. In this case  $I = 1$  for an incumbent district and  $I = 0$  for a nonincumbent district.

## Questions for Discussion

1. Interpret the regression coefficients. For all districts, what exactly does the coefficient 0.174 mean? Interpret the coefficients 0.414 and 0.75 as well. Why is the coefficient for the  $WSTE$  variable different in the three equations?
2. Explain exactly what the  $t$ -value means. Determine the  $p$ -value associated with each. Interpret  $r^2$ . Why is  $r^2$  different for each equation?
3. Why does the incumbency dummy variable appear only in the first equation?
4. Could this model be used productively to predict? What insights could a candidate get from the model?

Source: Prepared by Scott Vitell and David A. Aaker of the University of California at Berkeley as the basis for class discussion.

## CHAPTER 20—CASE

### CASE 20-1 Southwest Utility

In view of the problem of pollution from energy sources it was felt that a need existed for an in-depth baseline study of consumer attitudes and perceptions of energy-related issues. As a result, a study was conducted in February 1994 (at the peak of the pollution problems) on a variety of energy-related issues.

A mail questionnaire was sent to 2,500 residents of three medium-sized cities. A total of 922 respondents returned the questionnaire. A sample of 574 of the respondents was selected for the initial analysis. One key question asked if the respondent would be willing to give up degrees of heat in the home in order to achieve less air pollution, assuming that such a trade-off were possible. One analysis was to determine how

those willing to give up some heat in their homes differed from those who were not willing. Accordingly, the two groups are profiled in Table 20-7 on the basis of 10 variables.

The table shows the mean values for each group, the  $F$ -ratio, which reflects the statistical significance of the difference between the means, and the standardized discriminant coefficients.

Interpret the table elements. What is the appropriate interpretation of each term? Which variables are the most helpful in identifying the characteristics of the group? What are the appropriate hypothesis tests to be used in the analysis?

Source: Prepared by David J. Barnaby, Richard C. Reizenstein, and David A. Aaker as a basis for class discussion.



**TABLE 20-7**  
**Discriminant Analysis for Two Home Heat Preference Groups**

Variable <sup>a</sup>	F-Ratio	Group 1	Group 2	Standardized Discriminant Coefficients
		Prefer Less Heat n = 171 Mean (Standard Deviation)	Prefer Same Heat n = 378 Mean (Standard Deviation)	
Family member 15–19 years	5.87	0.39 (0.69)	0.25 (0.58)	.35
Paid family members	3.81	2.16 (1.31)	1.93 (1.28)	.28
Education	14.34	4.05 (1.30)	3.55 (1.48)	.31
Income	5.67	3.64 (1.59)	3.28 (1.66)	−.08
Television	4.42	2.64 (1.04)	2.43 (1.09)	.14
Magazines	7.08	2.05 (1.16)	1.76 (1.20)	−.03
Civic clubs	7.68	1.44 (1.22)	1.14 (1.16)	.28
Spouse	4.80	1.27 (1.14)	1.04 (1.14)	.18
Amount each family should pay	16.94	3.55 (2.87)	2.57 (2.42)	−.05
Amount family is willing to spend	18.29	3.98 (3.13)	2.89 (2.61)	.12
Mean discriminant score (significant at .001 level)		0.44	−.20	

<sup>a</sup>Nonsignificant (at the .05 level) variables include the following demographics: sex, marital status, family size, age distribution of persons 0–14 and over 20 living at home, mobility, race, age (of respondent), and length of time as area resident. Only variables with an F-ratio included at the .05 level of significance are displayed.

## CASE 20-2 Store Image Study

Table 20-8 shows the output of a factor analysis conducted on the ratings of 82 respondents who were asked to evaluate a particular discount store using 29 semantic-differential, seven-point scales. The same respondents were asked to evaluate a supermarket.

A second factor analysis was conducted on the supermarket data, and the results are shown in Table 20-9.

Source: Based on a study by John Dickson and Gerald Albaum, “A Method for Development of Tailormade Semantic Differentials for Specific Marketing Content Areas,” *Journal of Marketing Research*, 8, February 1977, pp. 87–91.

1. Label the factors. Compare these factors with those found in the discount store analysis of Table 20-8. Why should they be different? Hint: It isn't because a discount store is different from a super-market.
2. Analyze the communalities. Which are low? What are the implications? Contrast with Table 20-8.

**TABLE 20-8**  
**Factor Loadings for a Discount Store (Varimax Rotation)**

Scale	I	II	Factor III	IV	V	Communality
1. Good service	.79	−.15	.06	.12	.07	.67
2. Helpful salespersons	.75	−.03	.04	.13	.31	.68
3. Friendly personnel	.74	−.07	.17	.09	−.14	.61
4. Clean	.59	−.31	.34	.15	−.25	.65
5. Pleasant store to shop in	.58	−.15	.48	.26	.10	.67
6. Easy to return purchases	.56	−.23	.13	−.03	−.03	.39
7. Too many clerks	.53	−.00	.02	.23	.37	.47
8. Attracts upper-class customers	.46	−.06	.25	−.00	.17	.31
9. Convenient location	.36	−.30	−.02	−.19	.03	.26
10. High quality products	.34	−.27	.31	.12	.25	.36
11. Good buys on products	.02	−.88	.09	.10	.03	.79
12. Low prices	−.03	−.74	.14	.00	.13	.59
13. Good specials	.35	−.67	−.05	.10	.14	.60
14. Good sales on products	.30	−.67	.01	−.08	.16	.57
15. Reasonable value for price	.17	−.52	.11	−.02	−.03	.36
16. Good store	.41	−.47	.47	.12	.11	.63
17. Low pressure salespersons	−.20	−.30	−.28	−.03	−.05	.18
18. Bright store	−.02	−.10	.75	.26	−.05	.61
19. Attractive store	.19	.03	.67	.34	.24	.66
20. Good displays	.33	−.15	.61	.15	−.20	.57
21. Unlimited selections of products	.09	.00	.29	−.03	.00	.09
22. Spacious shopping	.00	.20	.00	.70	.10	.54
23. Easy to find items you want	.36	−.16	.10	.57	.01	.49
24. Well-organized layout	−.02	−.05	.25	.54	−.17	.39
25. Well-spaced merchandise	.20	.15	.27	.52	.16	.43
26. Neat	.38	−.12	.45	.49	−.34	.72
27. Big store	−.20	.15	.06	.07	−.65	.49
28. Ads frequently seen by you	.03	−.20	.07	.09	.42	.23
29. Fast checkout	.30	−.16	.00	.25	−.33	.28
Percentage of variance explained	16	12	9	8	5	
Cumulative variance explained	16	28	37	45	50	
Possible Factor Interpretations:						
Factor I	Good service—friendly	Factor IV	Spaciousness			
Factor II	Price level	Factor V	Size			
Factor III	Attractiveness					

**TABLE 20-9**  
**Factor Loadings for a Supermarket (Varimax Rotation)**

Scale	I	II	Factors III	IV	V	Communality
1. Well-spaced merchandise	.73	.10	-.11	.02	.12	.57
2. Bright store	.63	-.08	.45	-.11	.06	.62
3. Ads frequently seen by you	-.04	.08	-.02	-.12	.58	.36
4. High-quality products	.50	.32	.24	.01	-.03	.41
5. Well-organized layout	.70	.08	.05	-.00	.12	.51
6. Low prices	-.09	.64	-.02	.19	.18	.49
7. Good sales on products	.27	.73	-.00	-.10	-.01	.62
8. Pleasant store to shop in	.63	.36	.09	.12	.01	.55
9. Good store	.73	.37	.26	.19	-.06	.78
10. Convenient location	.18	.01	.59	-.10	.36	.52
11. Low pressure salespersons	-.15	.05	.40	-.06	-.11	.20
12. Big store	.08	-.02	.42	-.00	.14	.20
13. Good buys on products	.35	.73	.04	.18	-.10	.70
14. Attractive store	.68	.28	.38	.10	-.10	.70
15. Helpful salespersons	.43	.16	.34	.34	.45	.64
16. Good service	.60	.19	.21	.35	.01	.56
17. Too many clerks	-.06	.03	-.01	.62	-.08	.40
18. Friendly personnel	.48	.11	.17	.47	.36	.62
19. Easy to return purchases	.39	.10	.01	-.10	.43	.36
20. Unlimited selection of products	.10	.09	.48	.17	-.18	.31
21. Reasonable prices for value	.24	.71	.04	.01	.13	.58
22. Neat	.87	-.00	.11	.07	.04	.78
23. Spacious shopping	.72	.02	-.26	-.01	.18	.62
24. Attracts upper-class customers	.38	-.37	-.17	-.06	.06	.32
25. Clean	.83	.11	.16	.12	.03	.74
26. Fast checkout	.22	.12	-.07	.68	-.13	.55
27. Good displays	.73	.19	.07	.14	.13	.61
28. Easy to find items you want	.57	.23	-.08	.03	-.01	.39
29. Good specials	.37	.62	.08	.06	.32	.63
Percentage of variance explained	26	11	6	5	5	
Cumulative variance explained	26	37	43	48	53	

## CASE 20-3

### Behavioral Research

A considerable amount of the nation's resources are spent handling and replacing discarded products. Thus, it would be useful to modify the consumer's behavior, encouraging product maintenance and repair and discouraging style-oriented replacement decisions.

Before addressing the task of modifying current consumer behavior regarding product disposal decisions, it seemed appropriate to researchers at Behavioral Research to conduct a study determining current behavioral patterns. They therefore proposed and received government funding for a study with an

ultimate objective to use segmentation procedures to identify and describe the type of person who has "throwaway" tendencies and to contrast this consumer type with others who have different tendencies.

#### Description of the Research

In-home interviews were conducted with 311 residents of the city of Santa Monica, California. To be an eligible respondent, some member of their household had to have disposed of one of a selected list of 12 small electric appliances during the past year. The product list included appliances characterized by rapid technological innovation (for example, toaster ovens), those for which style innovation is rapid (for example, electric

toothbrushes), and those considered “stable” (for example, vacuum cleaners).

Respondents were asked how they disposed of the product. The following are the choices offered and the number of respondents in each category.

	Number of Respondents
Discarded the product	65
Stored the product	128
Sold, donated, or traded in the product	62
Gave the product to a friend	56
Total	311

Thus, a total of 65 of the 311 respondents discarded the product, whereas 246 of the respondents selected one of the alternate choices.

The research objective was to identify variables that would distinguish between individuals who chose different means of disposing of small electric appliances. Two sets of variables were included in the study. The first was a standard set of demographic variables including age, marital status, education, occupation, and family income. The second was a set of lifestyle or psychographic variables which were developed exclusively for this study. A total of 65 (5-point agree–disagree) statements were drawn from a review of the literature of consumers’ opinions on matters such as product durability, the repair industry and the like and from statements made by participants in three focus groups conducted during the exploratory phase of the project. The lifestyle statements were thus all related to disposition behavior as opposed to being general lifestyle statements.

A factor analysis was conducted on the 65 lifestyle variables. The results are shown in Table 20-10.

**TABLE 20-10**  
**Factor Loadings of the Lifestyle Statements**

	Factor 1
Products break down too soon these days.	.719
Products are built so cheaply today that they are meant to be thrown out rather than repaired.	.595
Today greater attention is devoted by manufacturers to performance standards and durability.	–.593
Products aren’t built like they used to be.	.592
I am often disappointed with the durability of products I buy.	.541
Too many products are built in such a way that they can’t be easily repaired.	.529
Today’s products are vast improvements over products of the past.	–.461
TOTAL VARIANCE EXPLAINED	11.6%
	Factor 2
I like to have “the latest thing” in appliances.	.602
I like modern, stylish things.	.580
I sometimes replace a perfectly usable product with one that is more stylish.	.486
I sometimes replace a product even though it is still useful.	.473
Style changes in products are unimportant.	–.467
I am convenience oriented.	.400
TOTAL VARIANCE EXPLAINED	9.5%
	Factor 3
I don’t pay much attention to the use and care booklets that come with products.	.608
I read product labels and instruction booklets carefully.	–.596
I don’t take care of products the way I should.	.459
I look for products with good warranties.	–.452
In general, I make wise purchase decisions.	–.409
TOTAL VARIANCE EXPLAINED	5.4%
	Factor 4
If a product costing less than \$40 breaks down I’m likely to discard it without much hesitation.	.694

**TABLE 20-10 (continued)**

If a product costing less than \$60 breaks down I'm likely to discard it without much hesitation.	.596
If a product costing less than \$20 breaks down I'm likely to discard it without much hesitation.	.594
Once something on a product breaks, you might as well throw it away.	.491
I feel a responsibility to have a product repaired rather than replaced whenever feasible.	-.390
I often buy less expensive products so that I can throw them away without feeling guilty.	.370
It is often cheaper to buy a new product than to have an old one repaired.	.350
TOTAL VARIANCE EXPLAINED	4.8%
<b>Factor 5</b>	
It takes too long to have a product repaired.	.705
It is really hard to get a product repaired these days.	.613
Getting an item repaired is usually very inconvenient.	.514
The repair industry is a "rip-off."	.502
It is too expensive to get many smaller products repaired.	.430
You can't trust most repair shops.	.414
TOTAL VARIANCE EXPLAINED	3.6%
<b>Factor 6</b>	
I am a "pack rat."	.523
I often keep old appliances around the house rather than get rid of them.	.462
I often give away old products to relatives or friends.	.420
I like to fix things.	.400
I tend to keep old products until I move—then I throw or give them away.	.364
I always buy "new" rather than "used."	.350
TOTAL VARIANCE EXPLAINED	3.3%
<b>Factor 7</b>	
Consumers are more price conscious today than ten years ago.	.508
Labels on products should be more informative.	.459
Advertisements should be more informative.	.394
The repair industry should be regulated.	.349
TOTAL VARIANCE EXPLAINED	3.0%

## Questions for Discussion

1. Label and describe the factors.
2. Assume that a national probability sample was going to be obtained in a follow-up study. Identify two of three variables to represent each factor.
3. How many of these factors should be considered for subsequent analysis?
4. What analysis would you now recommend?
5. What set of variables do you feel will be more useful in identifying those who discard products: the demographic or the lifestyle variables?
6. Which of the factors will be the best predictors of disposal behavior? Which demographic variables? Be specific in your hypotheses.

Source: Written by Marian Burke, W. David Conn, Richard J. Lutz, and David A. Aaker as a basis for class discussion.



CASE 21-1  
Nester's Foods

Nester's Foods is evaluating a group of concepts for new diet products. To evaluate the positioning of these new products, an MDS study was conducted. The respondents, women who were on a diet, were asked

to group 38 food products, including 10 of the new diet concepts. The output of the MDS, based on these similarity ratings, is shown in Figure 21-10. "L.C." stands for low calorie, and "M/S" stands for meal substitute.



**FIGURE 21-10**  
**Two-dimensional perceptual configuration of 38 food products.**  
SOURCE: Adapted from Yoram Wind and Patrick J. Robinson, "Product Positioning: An Application of Multidimensional Scaling," in Russell L. Haley (ed.), *Attitude Research in Transition*, Chicago: American Marketing Association, 1972.

Questions for Discussion

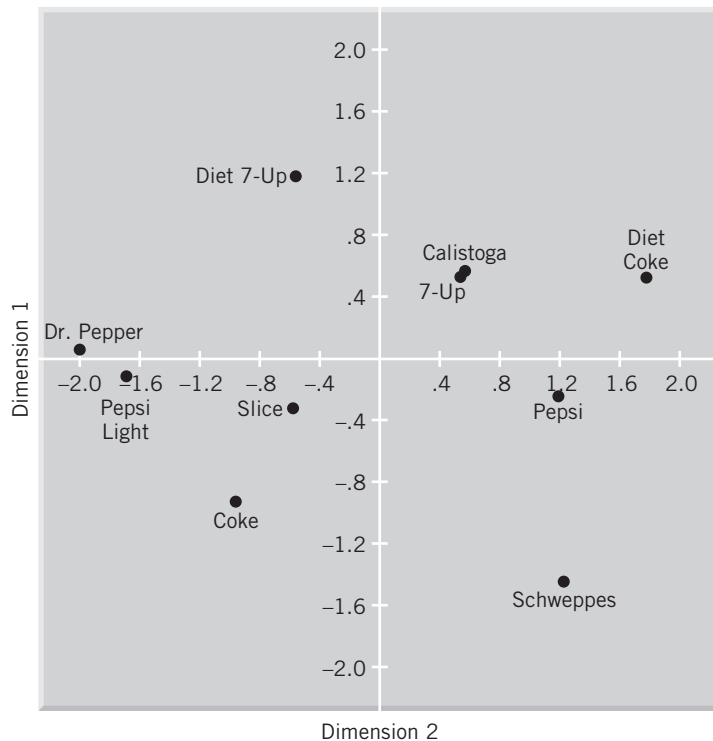
1. Label the dimensions.
2. Group the products into clusters visually and describe the different clusters. What are the positioning implications?
3. What other information would you collect, and how would you use it in the analysis?

## CASE 21-2 Pepsi-Cola

Ed Sturdley, the marketing research manager for Pepsi, had commissioned a perceptual mapping study of Pepsi in the college market. He had been concerned with the fact that perceptual maps tended to be sensitive to the approach used. Therefore, he had insisted that the data contain information so that perceptual maps could be conducted using similarity, preference, or attribute data.

The study involved the following questionnaire, distributed to a representative sample of 64 undergraduates from U.S. colleges. Ten objects were included:

1. Pepsi
2. Diet 7-Up
3. Calistoga Natural Orange
4. 7-Up
5. Slice 10% Fruit Juice
6. Schweppes Sparkling Water
7. Dr. Pepper



**FIGURE 21-11**  
Perceptual map using preference data.

8. Diet Coke
9. Coke
10. Pepsi Light

The analysis of the similarity data is shown in Figure 21-5. A perceptual map based on the preference

data is shown in Figure 21-11. The two-dimensional fit was extremely good for both. If anything, the preference-based map had a slightly higher fit.

## Questions for Discussion

1. Critique the questionnaire. Was it complete? Would you have asked the questions the same way?
2. Compare the preference map with the similarities map. What differences do you see? What are their implications? Which is the "correct" map?
3. Conduct any other analysis that you believe would be useful. Interpret the results. Among the analyses that could be run would be analyses to compare perceptual maps obtained from
  - Attribute, similarity, and preference data.
  - Factor analysis vs. discriminant analysis of the attribute data.

- Subsets of the data such as males, those preferring a cola, those preferring a diet drink, or the heavy drinkers.
- Subsets of the objects such as the subset excluding all diet drinks or the subset excluding the nondiet colas.
- Converting the attribute data to binary by indicating whether the attribute rating was

three or above and using correspondence analysis.

- Conducting a cluster analysis of the drinks using the attribute data and again using the similarity data.
- Conducting a cluster analysis of the respondents.

The questionnaire consisted of six sets of questions:

I. Please rate the following pairs of drinks as to how similar they are. Circle the appropriate number.

	Very Similar							Very Different		Coded Column
Pepsi-Diet 7-Up	1	2	3	4	5	6	7	8	9	1
Pepsi-Calistoga Natural Orange	1	2	3	4	5	6	7	8	9	2
Pepsi-7-Up	1	2	3	4	5	6	7	8	9	3
Pepsi-Slice 10%	1	2	3	4	5	6	7	8	9	4
					.					.
					.					.
					.					.
Dr. Pepper-Diet Coke	1	2	3	4	5	6	7	8	9	40
Dr. Pepper-Coke	1	2	3	4	5	6	7	8	9	41
Dr. Pepper-Pepsi Light	1	2	3	4	5	6	7	8	9	42
Diet Coke-Coke	1	2	3	4	5	6	7	8	9	43
Diet Coke-Pepsi Light	1	2	3	4	5	6	7	8	9	44
Coke-Pepsi Light	1	2	3	4	5	6	7	8	9	45

II. Indicate your attitude toward the following drinks.

	Dislike Strongly		Dislike			Like			My Favorite	Coded Column
Pepsi	1	2	3	4	5	6	7	8	9	46
Diet 7-Up	1	2	3	4	5	6	7	8	9	47
Calistoga Natural Orange	1	2	3	4	5	6	7	8	9	48
7-Up	1	2	3	4	5	6	7	8	9	49
Slice 10% Fruit Juice	1	2	3	4	5	6	7	8	9	50
Schweppes Sparkling Water	1	2	3	4	5	6	7	8	9	51
Dr. Pepper	1	2	3	4	5	6	7	8	9	52
Diet Coke	1	2	3	4	5	6	7	8	9	53
Coke	1	2	3	4	5	6	7	8	9	54
Pepsi Light	1	2	3	4	5	6	7	8	9	55

III. From the above list, circle the drink you bought last. (56) (10 brands coded 0 to 9 in order of question 2)

IV. Indicate your agreement or disagreement with the following statements.

	Agree Strongly							Disagree Strongly		Coded Column
Pepsi is:										
Refreshing	1	2	3	4	5	6	7	8	9	57
Sweet Tasting	1	2	3	4	5	6	7	8	9	58
Fruity	1	2	3	4	5	6	7	8	9	59
Full-Bodied	1	2	3	4	5	6	7	8	9	60
For the Young and Active	1	2	3	4	5	6	7	8	9	61
Fattening	1	2	3	4	5	6	7	8	9	62

(continued)

Diet 7-Up is:										
Refreshing	1	2	3	4	5	6	7	8	9	63
Sweet Tasting	1	2	3	4	5	6	7	8	9	64
Fruity	1	2	3	4	5	6	7	8	9	65
Full-Bodied	1	2	3	4	5	6	7	8	9	66
For the Young and Active	1	2	3	4	5	6	7	8	9	67
Fattening	1	2	3	4	5	6	7	8	9	68
					.					.
					.					.
					.					.
Pepsi Light is:										
Refreshing	1	2	3	4	5	6	7	8	9	111
Sweet Tasting	1	2	3	4	5	6	7	8	9	112
Fruity	1	2	3	4	5	6	7	8	9	113
Full-Bodied	1	2	3	4	5	6	7	8	9	114
For the Young and Active	1	2	3	4	5	6	7	8	9	115
Fattening	1	2	3	4	5	6	7	8	9	116
V. What is the number of times during the last week that you consumed one of these beverages _____ (117–118)										
VI. I am a male _____ I am a female _____ (119)										
(coded a 1 if male and 2 if female)										
Identification Number (120–121)										

## CASE 21-3

### The Electric Truck Case

John Hirsch of Central Utility was attempting to develop conclusions from a conjoint analysis study of electrically powered trucks. The study objectives were (1) to determine the number of commercial applications that were compatible with the limitations of electric vehicles, and (2) to assess the perceived importance of those technical requirements as compared to other vehicle characteristics, such as initial costs and pollution levels.

In the first phase of the study, a sample of truck owners was interviewed and the nature of their applications was determined. They found that 11 percent of commercial truck applications could get along with the electric vehicle limitations of a 4-mile range, a maximum of 40 stops, a load limit of 1,500 pounds payload, and “seldom” freeway travel. The most sensitive

dimension was freeway travel. If that limitation were removed, the electric vehicle could be used for 19 percent of applications. In the second phase of the study, people responsible for purchases of commercial trucks were invited to an “electric vehicle seminar at which an operating electric truck was available for inspection and test driving.” During the seminar they discussed the advantages and disadvantages of electric vehicles and participated in a conjoint analysis study.

As Table 21-2 indicates, the conjoint study involved five attributes, each of which had two levels associated with it. For example, the initial price was either \$5,000 or \$8,000. The respondents were those attending the electric vehicle seminars. Each respondent was asked to rank 16 alternative truck designs, based on the attributes shown in Table 21-2. The rankings of the respondents were averaged and provided the inputs to a conjoint analysis program. The output utilities also are shown in Table 21-2.

TABLE 21-2

**Relative Utilities of Conventional versus Electric Vehicles**

Attribute	Conventional Vehicle	Utility	Electric Vehicle	Utility
Speed and range	Unlimited	+1.426	40 mph and 40 miles	-1.426
Operating costs	Standard: 20 cents/mile	-0.928	Reduced: 10 cents/mile	+0.928
Initial price	Standard: \$15,000	+0.901	Premium: \$18,000	-0.901
Pollution levels	Standard: Gasoline engine	-0.544	Zero	+0.544
Propulsion system	Conventional: Gasoline engine	-0.019	New propulsion system	+0.019
	Net utility	+0.836	Net utility	-0.836

**Questions for Discussion**

Evaluate the study. Do you feel the attributes and the attribute levels were well selected? Interpret Table 21-2.

1. What information does it contain?
2. What are the underlying assumptions?
3. What additional analysis might be useful to do?

Source: Prepared by George Hargreaves, John D. Claxton, Frederick H. Siller, and David A. Aaker as a basis for class discussion.

**CASE 21-4****Fargo Instruments**

Ed Heedam was an account executive for the marketing research firm, Boyle Research, and was designing a study for Fargo Instruments, makers of private-label calculators for major retailers. One of Fargo's retail chain customers wanted to review its line of calculators. The need was to determine what types of features to offer in the next generation of models. Among the features that could be included in a model were rechargeability, financial functions, statistical functions, warranty, and algebraic parentheses to assist calculation. The study needed to estimate how much the target customer group, college students, would pay for the various features. The tentative plan was to use a telephone interview.

One option was clearly conjoint measurement. If conjoint was used, there would need to be a decision

as to whether a two-by-two trade-off or the full-profile approach should be used. However, Ed wondered if there might be alternatives to conjoint that may work in this case, alternatives that may be more amenable to telephone interviewing and provide the same information. In particular, he was considering two alternatives, a constant-sum approach and a dollar-metric approach.

In the constant-sum approach the respondent would allocate 10 points over the five attributes proportional to the attribute's importance to him or her. In the dollar-metric approach, the respondent would be asked to indicate what attribute level would be least preferred (unless the answer was obvious) and how much he or she would pay to receive another attribute level. Both would force the respondent to choose between attributes and would thus address the "I like all the features" problem of simply asking directly for the importance of each attribute.

**Questions for Discussion**

1. What are the similarities and differences between the constant-sum and dollar-metric approaches to conjoint? Which are best suited to telephone interviewing? Which would you select in this case? Under what circumstances would conjoint tend to be preferred? What about the dollar metric? What about the constant sum?
2. Would you select the full-profile or the trade-off approach?
3. What other changes would you consider making in the design?

### CASES FOR PART IV

#### Special Topics in Data Analysis

#### CASE IV-1 Smith's Clothing (B)

In the Smith's Clothing (A) case a research project was developed in which the following types of information were gathered:

1. Image data using 20 attributes for four different stores, including Smith's.
2. Patronage data: where respondents shopped and where they last bought.
3. A bank of 30 lifestyle questions relating to shopping and women's clothing.
4. A 10-question scale that measures opinion leadership in women's fashions and the tendency to discuss women's fashions.
5. A set of importance weights on the 20 attributes used in the image question bank.
6. Demographic variables.

Develop an analysis strategy using the various multivariate techniques that have been covered. The sample size is 1,000.

#### SPSS®

#### CASE IV-2 NewFood<sup>1</sup>

Mr. Conrad Ulcer, newly appointed New Products marketing director for Concorn Kitchens, was considering the possibility of marketing a new highly nutritional food product with widely varied uses. This product could be used as a snack, a camping food, or as a diet food. The product was to be generically labeled Newfood.

Because of this wide range of possible uses, the company had great difficulty in defining the market. The product was viewed as having no direct competitors. Early product and concept tests were very encouraging. These tests led Mr. Ulcer to believe that the product could easily sell 2 million cases (24 packages in a case) under the proposed marketing program involving a 24-cents package price and an advertising program involving \$3 million in expenditures per year.

Sales	2.00 million cases
Revenue retail	\$8.06 million (assumes 70% of the price is revenue to the manufacturer)
Manufacturing costs	\$3.00 million (\$1 million fixed manufacturing costs plus \$1 per case variable)
Advertising	\$3.00 million
Net margin	\$2.06 million

The projected P & L for the first year national was There were no capital expenditures required to go national, since manufacturing was to be done on a contract pack basis. These costs were included in the projected P & L. Concorn has an agreement with the contract packer requiring that once a decision to go national is made, Concorn is obligated to pay fixed production costs (\$1 million per year) for three years even if the product is withdrawn from the market at a later time.

Even though there are no capital requirements, it was the company's policy not to introduce new products with profit expectations of less than \$.5 million per year (a three-year planning horizon was usually considered). Because there was considerable uncertainty among Concorn management as to either probable first-year or subsequent-year sales, or the best introductory campaign, it was decided that a six-month market test would be conducted. The objectives of the test were to

- Better estimate first-year sales.
- Study certain marketing variables to determine an optimal—or at least better—introductory plan.
- Estimate the long-run potential of the product.

These objectives were accomplished through the controlled introduction of the product into four markets. Conditions were experimentally varied within the grocery stores in each of the four markets. Sales were measured with a store audit of a panel of stores. Preliminary results had been obtained. Now it was up to Mr. Ulcer to decide what they meant for the introductory strategy of Newfood.

<sup>1</sup>Reproduced with permission from Prof. Gerald Eskin and the Board of Trustees, Leland Stanford Junior University, Stanford, CA.



## Design of Experimental Study

The three variables included in the experimental design were price, advertising expenditures, and location of the product within the store. Three prices were tested (24 cents, 29 cents, 34 cents); two levels of advertising (a simulation of a \$3 million introduction plan and a \$6 million plan); and two locations (placing the product in the bread section versus the instant breakfast section). Prices and location were varied across stores within cities while advertising was varied across cities. The advertising was all in the form of spot TV. The levels were selected so that they would simulate on a local basis the impact that could be achieved from national introduction programs at the \$3 million and \$6 million expenditure levels. Due to differential costs between markets and differential costs between spot and network (to be used in national introduction), an attempt was made to equate (and measure) advertising inputs of gross advertising impressions generated, normalized for market size. Unfortunately, it was not possible to achieve exactly the desired levels. This was due to the problem of nonavailabilities of spots in some markets and discrepancies between estimate of TV audiences made at the time the test was being planned and the actual audiences reached at the time the commercials were actually run.

The advertising plan and actual gross rating points (GRPs) achieved, by city, are as follows:

City	Advertising Plan—Simulation of First-Year National Program	Desired GRPs per Week	Actual GRPs Achieved
3	\$3.0 million	100	105
4	\$3.0 million	100	110
1	\$6.0 million	200	165
2	\$6.0 million	200	190

Complete information is not available on the distribution of spots over the six-month period, but it is known that about as many spots were run in the first two months as in the next four months combined.

The test design is summarized below. Treatment was held constant over the entire six-month period. Each cell contained three stores. Each store was audited monthly.

City	ADV Level	P = 24 cents		P = 29 cents		P = 34 cents	
		L1	L2	L1	L2	L1	L2
3	Low						
4	Low						
1	High						
2	High						

P = Price  
L = Location  
3 stores per cell

	Per Month	Total for Six Months
Per price	24	144
Per location	36	216
Per adv. level	36	216
Per city	18	108
Total	72	432

The design generated the following sample sizes:

The data were analyzed on a bimonthly basis. The response measure used in the analysis was average unit sales per month per experimental cell.

## Control Measures

In the selection of cities and stores for the tests, attempts were made to match cells and cities on such variables as store size, number of checkout counters, and characteristics of the trading area. Because it was not certain that adequate matches had been achieved, it was decided to obtain measurements on some of these variables for possible use in adjusting for differences in cell characteristics. It was also felt that it might be possible to learn something about the relationships between these variables and sales, and that this information would be of assistance in planning the product introduction into other markets.

The data are listed in Exhibit IV-1. Exhibit IV-2 presents a matrix of simple correlation coefficients. Thus the correlation between the first two months sales (S1) and price was  $-.70$ .

## Questions for Discussion

1. The correlation between price and sales is large and negative for all three time periods. What does this say about how price works?
2. Explain the correlations between advertising and sales. What is happening to the advertising effect over time?
3. Note that the intercorrelations between advertising location and price are all zero. Why?
4. Run regressions for each of the three sales variables (S1, S2, S3) using P, A, and L as independent variables. What do these regressions imply about the effect of price? Of advertising? Of location?

5. Rerun the regressions adding the variables *I* and *V*. Do your judgments about the effects of price, advertising, and location change? Why?
6. If possible, obtain an output of residuals (differences between the model predicted *Y* and the actual *Y*). Check the residuals to identify observations that do not seem to fit the model. Why don't they fit? For example, the residual for the second observation of the *S1* variable would be the difference between 323

- (the observed value) and the prediction made by the model, that is, the intercept  
 plus *P* (24) times the price regression coefficient  
 plus *A* (0) times the advertising regression coefficient  
 plus *L* (0) times the location regression coefficient  
 plus *I* (8.3) times the income regression coefficient  
 plus *V* (41) times the store regression coefficient
7. What additional regression runs, if any, should be made to complete the analysis of this data?

#### EXHIBIT IV-1

Average Unit Sales Per Month								
First 2 Months <i>S1</i>	Second 2 Months <i>S2</i>	Last 2 Months <i>S3</i>	Price <i>P</i>	Adv. (1 if High, 0 Otherwise) <i>A</i>	Location (1 if Instant Breakfast, 0 Otherwise) <i>L</i>	Income (000) <i>I</i>	Store \$ Vol. (000) <i>V</i>	City #
225	190	205	24	0	0	7.3	34	3
323	210	241	24	0	0	8.3	41	4
424	275	256	24	1	0	6.9	32	1
268	200	201	24	1	0	6.5	28	2
224	190	209	24	0	1	7.3	34	3
331	178	267	24	0	1	8.3	41	4
254	157	185	24	1	1	6.9	23	1
492	351	365	24	1	1	6.5	37	2
167	163	145	29	0	0	6.5	33	3
226	148	170	29	0	0	8.4	39	4
210	134	128	29	1	0	6.5	30	1
289	212	200	29	1	0	6.2	27	2
204	200	175	29	0	1	6.5	37	3
288	171	247	29	0	1	8.4	43	4
245	120	117	29	1	1	6.5	30	1
161	116	111	29	1	1	6.2	19	2
161	141	111	34	0	0	7.2	32	3
246	126	184	34	0	0	8.1	42	4
128	83	83	34	1	0	6.6	29	1
154	122	102	34	1	0	6.1	24	2
163	116	116	34	0	1	7.2	32	3
151	112	119	34	0	1	8.1	36	4
180	100	75	34	1	1	6.6	29	1
150	122	101	34	1	1	6.1	24	2
Mean								
236	164	171	29	.5	.5	7.0	32	

### Matrix of Simple Correlation Coefficients

		(S1)	(S2)	(S3)	(P)	(A)	(L)	(I)	(V)
(S1)	1	1							
(S2)	2	.88	1						
(S3)	3	.92	.90	1					
(P)	4	-.70	-.73	-.77	1				
(A)	5	.12	.03	-.16	0	1			
(L)	6	.01	-.04	.04	0	0	1		
(I)	7	.18	.00	.34	-.13	-.75	0	1	
(V)	8	.39	.30	.54	-.18	-.74	-.04	.81	1

## CHAPTER 24—CASE

### CASE 24-1 Brown Microwave

Brown Microwave was one of the leaders in the area of microwave ovens for the home, with about 15 percent of the market in 1997. Although microwave cooking had been around for many years, its use in homes was in a major growth stage due to the replacement market.

Brown was considering two new cabinet designs for its 1999 line of countertop microwave cookers. Both represented a sharp departure from the modern chrome designs that had been available from Brown and its competitors. One was an "early American" design and the other was made out of heavy dark wood and was more of a Mediterranean design. The concept was to add charm, warmth, and style to a product that had a "chrome-computer" image. The new design would add about 15 to 20 percent to the price of the unit.

The new designs would have to provide a net increase of Brown's sales of 15 to 20 percent to be considered worthwhile. There would be a substantial investment required to produce them, and their introduction would require a large percentage of the marketing budget and sales effort.

Before committing the company to one or both of these designs, a product test was proposed. The concept was to modify a large van so that half of it would simulate three kitchen segments. The segments would differ in the type of paneling and cabinets used. One was dark, Mediterranean in appearance, another was light-oak "early American," and the third had a contemporary look. In this setting five counter-top

microwave ovens were displayed: two were competitive models, one was the existing Brown design, and the remaining two were the proposed Brown designs. Each had very comparable features and specifications. The major difference was the cabinet.

The plan was to bring the van into five cities throughout the eastern United States, and in each city to recruit 100 women. The women would be recruited from shopping areas near or connected to office buildings. The hope was to obtain a reasonable number (like 25 percent of the sample) of working women who would be on a lunch break or would be shopping after work. The women would be asked to help evaluate some new kitchen appliances. A gift was promised for participants. The cities would be selected from cities frequently used as test markets.

Each woman would be shown each of the five models. The common performance capabilities would be explained, but it would be emphasized that the major difference was appearance and price. The price of each would be noted on an attached sign. After the women saw the five models, they would be asked to indicate their first, second, and third choices, assuming they were buying such an appliance now. The following information also would be obtained regarding the respondents' status prior to exposure to the new models:

1. Did the respondents own a microwave oven?
2. If so, what type and make?
3. If not, were they familiar with microwaves and did they plan to purchase one during the next year?

After exposure to the new models:

1. What were their intentions of buying a microwave oven during the next year?
2. What were their age, education, income, and family size?
3. Size of home or apartment? Rent or own?
4. Occupation?
5. What type of outlet would they go to if they were considering buying a microwave oven?

## Assignment

Evaluate the research design. Would you make any changes? Plan a data analysis strategy.

### CASE 24-2 National Chemical Corporation

The Tiger-Tread spray product designed to free cars stuck in ice or snow had been delayed due to problems with packaging. In the summer of 1996, the problems were solved and the product was ready to go. There were, however, a host of basic decisions that needed to be made, and Charley Omsrud was considering the value of delaying a national introduction of the product and running a test market.

One issue involved the amount of production capacity to plan both for the 5-oz can (good for two or three use occasions) and the 10-oz can (good for four to six use occasions). Although the 200 people from the Toledo lab that tried product samples did not seem to have problems using it, there was always the lingering concern that unanticipated product problems could materialize in a broader test.

An issue that had recently emerged was whether the market should be restricted to fleets of cars. A colleague of Charley Omsrud, the marketing manager, had observed that for every fleet car there were well over 10 other potential customers. If a consumer effort were mounted, the nature of the marketing program needed to be decided. In the test market used in 1970, extensive information on advertising and

distribution was obtained. Charley felt that a middle course might make sense. His idea was to distribute the product through service stations and support it with point-of-purchase display stands and brochures. After all, the consumer did rely on the service station to provide antifreeze and other winterization services.

Charley was evaluating a proposal from a local marketing research firm to conduct a test market through the coming winter in a snowbelt city of around two million people. The plan was to reach fleet owners with the existing sales force and to reach individual car owners through service stations supported by point-of-purchase advertising. The cost would be \$500,000 for running the test and evaluating the results. Among the outputs would be:

1. The percentage of households that
  - Were aware of the product
  - Purchased the product
  - Made a repeat purchase
2. The number and size of fleets that
  - Were aware of the product
  - Were aware but did not order the product
  - Ordered the product
  - Ordered the product and made repeat purchases
3. The type and incidence of any product problem

### Questions for Discussion

1. What will be learned from the test?
2. What would you add or change about the test?
3. What else would you like to know before making a decision about the test?

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## CASE 24-3

### U.S. Department of Energy (B)

The U.S. Department of Energy wanted to determine public attitudes toward six different windmill designs, including the familiar old Dutch windmill design and more futuristic designs such as the Darrieus (eggbeater)

design. One proposal was to show 300 adult respondents slides of the six designs. Each design was to be shown in three different scenes, a flat-land setting, a setting of hills, and a shore setting. The respondents were to be recruited from six locations, one of which was near a large working windmill.

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### Questions for Discussion

1. Evaluate the research design. How would you select the cities and recruit the respondents?
  2. How would you have them evaluate the six designs (actually the 18 different slides)?
  3. Would you use an evaluative scale or a paired or triad comparison?
- 

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## CASE 24-4

### Hokey Pokey is Born in India

It was a foggy Monday morning in early February 2008. As Rohan walked into the breakfast cafe of the Leela Hotel in Bangalore, he was deep in thought about the email he had just received from his boss back in the United States. He had been in Bangalore, India for a week and was conducting due diligence for an investment in a recycling factory in the outskirts of town. He gazed at the email on his laptop. The email and an attached report were from Raj, The Ross Group's Chief Operating Officer and Rohan's boss: "Please pack up and get on the next flight to Mumbai."

To: Rohan  
From: Raj  
Subject: *Hokey Pokey ice cream*

As a private investment group, you know that we have been actively looking to pick up a stake in the Indian Food & Beverage (F&B) sector. I went through the research report on the Indian F&B sector compiled by our colleagues in Mumbai. The team had also analyzed a business plan by a local Indian Chef's new start-up company that would focus on opening up ice cream parlors all over the nation. The goal is to establish outlets throughout a metropolitan city and then rapidly expand all over India. I see this as a valuable opportunity to enter this segment. I'm sure this opportunity to enter into the F&B sector would not only provide an excellent ROI possibility, but also enable us to diversify into the other product categories within

the F&B sector. As of now, the recycling project in Bangalore has been put on hold. Please pack up and get on the next flight to Mumbai. I'll expect a memo with concrete suggestions within a week.

Even in his previous job, Rohan had always wanted to see how new products are developed and launched. With The Ross Group being one of the leading private equity firms in India, and with operations across several countries, he got hooked onto this challenge as he knew this would be a good canvas to see how things work. However, he didn't know where to get started from. He then turned his attention to the attached report.

#### *Food & Beverage Industry Background*

The Indian Food & Beverage sector is an estimated Rs. 4.66 trillion market (US\$105 billion), of which the ice cream industry is an estimated Rs. 22 billion market (US\$500 million) growing at a rate of 12 percent since 2001. Ice cream consumption in India is much lower than other countries with a yearly per capita consumption of 0.12 liters. However, the majority of growth is attributed to an emerging middle class equipped with spending power.

The industry is divided into an unorganized and organized sector with 50 percent attributed to each. Within the industry, there are two types of models, whole-sale boxed and parlor retail, of which wholesale boxed makes up the majority of the organized sector. Amul, Kwality, and Vadilal are the three brands that dominate the fragmented wholesale boxed sector, which has yet to see an international player successfully enter. The parlor retail model is divided amongst neighborhood parlors like Bachelor's ice cream in Mumbai, comprising the

unorganized sector and international chains such as Baskin Robbins. Pricing in the parlor retail model varies drastically as the unorganized parlors tend to price their product at a very cheap price due to lower quality in the range of 10–15 Rupees. On the other end of the spectrum, offering higher priced items due to better quality are gelato parlors, some of which are organized chains, and Baskin Robbins. Initially, when Baskin Robbins entered the marketplace, their price point was averaging 80 Rupees. However, due to lack of success, they have revamped their pricing structure to now average 55 Rupees.

### **Key Product Attributes**

Product quality was a key focus and the goal was to make super premium ice cream locally. Ice cream quality is primarily characterized by the percentage of fat content and percentage of overrun that exists. Overrun is defined as the amount of air that is trapped within the ice cream during the production process. When more air is trapped, there is more overrun and the quality of ice cream is lower. The four main categories of ice cream quality are economy, standard, premium, and super-premium. Economy brands tend to have minimal fat content, in the range of 8–12 percent fat, and very high overrun (larger amount of trapped air), around 120 percent. On the other end, super premium brands have average fat content in the range of 15–18 percent and overrun that ranges from 25–40 percent.

### **The Business Plan**

The business plan stated that there was great potential for growth in the Indian ice cream industry, specifically in retail parlor outlets. The USP (unique selling proposition) was to offer high grade super premium ice cream in a distinct fashion from the way it had been traditionally served in the country. The ice cream would be mixed at the parlors on a frozen stone with mix-ins (assortments of nuts, candy bars, cookies,

brownies, fudge, etc.) and customers would have the option to design their own creations. This concept had seen success in international markets such as the United States and even other countries with similar spending habits, such as the United Arab Emirates and Singapore. Additionally, the concept would be served in a new age “lounge-like” atmosphere. During the recent growth in the economy, Indian consumers have spent more of their disposable income towards eating out than ever before. “Lifestyle concept” eateries such as coffee shops were gaining in popularity and catered to the new emerging middle class. The business plan focused on creating lifestyle parlors where a family or group of young adults could “hang-out.” This type of lifestyle parlor did not exist in a multi-chain format.

### **The Product Launch**

The business plan called for the parlors to launch in Mumbai and then rollout to the rest of the country. As part of a brand building exercise, the cosmopolitan city of Mumbai was chosen due to its significance as the source of trendy and high quality products in India. Many brands are viewed upon as favorable when they have success in Mumbai. Therefore, it was imperative that the brand be “born” in Mumbai. Hokey Pokey was selected by the Chef in a brief survey he did with industry peers. He came up with a list of numerous names and asked his network of associates within the F&B sector to vote. The winner was “Hokey Pokey,” inspired by a slang term used in several areas of the United States and parts of Great Britain in the 19th and early-to-mid 20th centuries, to describe ice cream sold by street vendors. Ice cream street vendors were colloquially referred to as “Hokey Pokey Men.”

As Rohan sat wondering about the efficacy of the business plan, a lot of questions emerged. For his memo to Raj he knew he needed answers to the following questions

## **Questions for Discussion**

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1. Is there a market for ice cream in India? How can I identify the market for a combined product—lifestyle and ice cream? Is the industry growth viable?
2. What is the current competition in the Indian ice cream industry? Is this an industry that can be penetrated?
3. What is the scope for lifestyle eateries, will the Indian audience be receptive to such a concept? How can I assess the opportunity?
4. What other cities within India should I looking at as a market for this product?
5. Is Hokey Pokey a good brand name for this venture? Is the Chef’s process of selecting the brand name correct? What other product names can I suggest to Raj?

This case was prepared by Rohan Mirchandani for the purpose of classroom discussion.