**Running Case with Real Data**

**Case 1.1**

**Dell Direct**

**Chapter 1**

1. Marketing research can help Dell to gain an understanding of how households and small businesses make decisions regarding personal computer purchases. This will help Dell to formulate targeted marketing strategies and thus maintain and build on its leadership position in the personal computers market.
2. The problem-identification research Dell should undertake consists of market potential, market share, Image, market characteristic, forecasting, and business trends research.
3. The problem-solving research Dell should undertake consists of segmentation, product, pricing, promotion and distribution research.
4. Yes, I would like to pursue a marketing research career with Dell. With its focus on marketing and customer satisfaction, Dell undertakes a lot of marketing research and has an exciting marketing research emphasis within the company.
5. Dell can make use of social networks, and the open-source social computing tools from which they are built, to extend the boundaries of its marketing research. These social communities open new avenues for understanding, explaining, influencing, and predicting the behaviors of consumers in the marketplace. Thus, they can be used in a variety of marketing research applications including segmentation, idea generation, concept testing, product development, brand launches, pricing, and integrated marketing communications.

**Chapter 2**

1. Several different answers are possible. However, the students should cover all the factors denoted by the first letter acronym PROBLEM.

1. What should the management do to maintain and build on its leadership position in the consumer segment of the personal computer market? (Note, although Dell markets its products and services to consumers, businesses and governments, to keep the scope of the problem manageable, it has been confined to the consumer segment for personal computers. Alternatively, the student can select any or all of the other segments.)

3. The marketing research problem is to determine consumer preferences for personal computers. More specifically,

* 1. What criteria do consumers use for evaluating personal computers?
  2. How do consumers evaluate the various brands of personal computers in terms of the choice criteria?
  3. What is the demographic and psychographic profile of customers loyal to Dell?
  4. What demographic, psychographic, and product usage characteristics differentiate Dell loyalists from consumers loyal to other brands?

4.

4.

# Purchase

of

Personal

Computers

# National

# Brand

# Name

Private Label/

Store Brand

# Choice

# Criteria

## Image

# Performance

## Price

# Other

# Factors

# Selection of a

Brand/Model

1. Describe three research questions, with one or more hypotheses associated with each.

RQ1: Is customer service more important than price in selecting a PC?

H1: For consumers who are loyal to Dell, customer service is more important than price.

RQ2: Is Dell evaluated more favorably than HP on customer satisfaction.

H2: Dell is evaluated more favorably than HP on customer satisfaction.

RQ3: Which is more important, performance or price?

H3: For one segment of consumers, performance is more important than price.

H4: For another segment of consumers, price is more important than performance.

**Chapter 3**

1. The research should be conducted in two phases. Exploratory research followed by descriptive research. Dell should use exploratory research to determine what variables are the most important to consumers and to understand the consumer decision making process and then use descriptive research to determine how the variables are related or correlated to one another.

The Exploratory phase should include analysis of internal and external secondary data, syndicated data, talking with experts and focus groups. These will offer you the best information about where the market is today as well as where the market is going in the next couple of years. The focus groups should be used to collect information from both consumers and retailers. Conducting focus groups with both consumers and retailers will allow Dell to compare the results against one another to make sure the information is as accurate as possible. Projective techniques should be used by the focus group moderators to extract sensitive information about price and feature trade-offs. Cool new features might elicit a more favorable reaction in a focus group environment when the consumers don’t have to make an actual purchase decision versus when consumers are buying their notebook or desktop PC at a store like Best Buy. If focus groups with retailers turn out to be difficult to schedule then depth interviews with retailers can be used instead.

2. The descriptive phase would consist of a single cross-sectional survey. This should involve comparing the results from the focus groups with known data about price points and consumer buying patterns. This would allow Dell to see if the tradeoffs of price versus performance, established in the focus groups, are in line with the behavior consumers’ exhibit when buying notebook PCs. It would also be important to segment the target market for notebook PCs by price sensitivity to determine how many people will likely be swayed to buy a cheaper notebook PC that doesn’t include an Intel processor. In a resource constrained situation Dell must know what effect the inevitable tradeoffs it will be making will have on sales.

3. Causal research is used to assess cause-effect relationships and can be used by Dell as well. Based on statistical analysis of experimental data, we can discern relationships in the data like, what is the effect of advertising on the image of Dell?

4. Several sources can be identified. There may be slight differences in estimates from different sources.

5. In addition to the population numbers, growth, and its demographic break-down, a variety of information available from the U.S. Census Bureau can be useful.

6. Syndicate firms such as The Nielsen Company offer social media information related to consumers and institutions. Social media are rich in qualitative and quantitative data that traditional methods may not be able to collect or that gathering them could have been a more time-consuming and costly process. Information gathered from social media is used by syndicated firms to understand the market, answer clients’ concerns, connect to consumers and potential participants, and conduct online research and publicize reports and company information. They provide both retail tracking and consumer information for all retail channels, including the Web. Nielsen offers a comprehensive view into the rapidly evolving product landscape and consumer behavior and attitudes at the national and local market levels. A wide range of product categories is covered. Dell can use this information to design and market products and services that meet the needs of consumers in the market place.

7. Information from syndicate firms that would help Dell increase its penetration of U.S. households includes general lifestyles and technology orientation gathered by the Futures Company, media and technology usage information from Nielsen, and technical product usage information from the NPD Group.

General lifestyles, technology orientation, computer usage information gathered by syndicated firms such as by the Futures Company can give Dell insights in to the changing preferences, attitudes and usage of computers and related technology products. Such information can help Dell design and market products and services to fit into the lifestyles of consumers in specific segments.

Syndicate firms such as NPD offer a single source for reliable insight into the consumer electronics, information technology, and telecommunications industries. They provide both retail tracking and consumer information for all retail channels, including the Web. NPD offers a comprehensive view into the rapidly evolving product landscape and consumer behavior and attitudes at the national and local market levels. A wide range of product categories is covered. Dell can use this information to design and market products and services that meet the needs of consumers in the market place.

1. Nielsen Online provides a number of Internet audience metrics that not only include information on the number of (unique) visitors, number of visits, but also detailed information such as sessions/visits per person, domains visited per person, pc time per person, duration of a Web page viewed, active digital media universe, and current digital media universe. It also provides a number of useful Internet advertising metrics such as leading industry advertisers, top site genres, etc. that can be very useful in assessing the effectiveness of Dell’s Web site.

**Chapter 4**

1. Yes, focus groups are the most appropriate form of qualitative research because they allow for the most discussion and interplay of ideas. When dealing with complex issues that have several variables, like the total value versus pricing of a notebook PC, it’s vital to have a data collection medium that’s rich and flexible. Using focus groups will give Dell a clearer idea of how consumers view different features. Specifically, the company will be able to better determine which features are linear satisfiers, which a PC has to have in order to compete, and which features are delighters, which could separate Dell’s PCs from the competition. Focus groups are also useful for uncovering innovative and useful information for the future. This could help Dell stay on top of the PC market going forward.

However, depth interviews are a second form of qualitative research that could be effective for Dell’s research needs. This technique would allow researchers to gain a deeper understanding of consumers and their underlying behaviors. We could use depth interviews to determine the consumers’ personal concern, or to understand the symbolic meaning of objects (e.g. Intel processor). However, focus groups are more useful than depth interviews.

# 2. Focus-Group Discussion Guide for PCs

**PREAMBLE (5 minutes)**

* Thanks and welcome
* Nature of a focus group (informal, multiway, all views acceptable, disagree)
* There are no right or wrong answers—all about finding out what people think
* Audio and video recording
* Colleagues viewing
* Help self to refreshments
* Going to be talking about PCs
* Questions or concerns?

**INTRODUCTIONS & WARM-UP (5 minutes)**

I’d like to go around the room and have you introduce yourselves:

* First name
* Best thing about having a PC
* Worst thing about having a PC

**PC USAGE (15 minutes)**

I’d like to understand a bit about how you typically use your PC:

* How many times a day do you use it?
* What are some of the most common types of things you use it for?

BRIEFLY EXPLORE

* If we were to take away your PC from you, what difference would that make to your life?

BRIEFLY EXPLORE

**PAST PC PURCHASE (15 minutes)**

Thinking now about your current PC, I’d like to talk about two different things:

* How did you actually go about the process of choosing the PC?
* Did you have any criteria for the PC itself?

##### Past PC Selection Process

* Thinking first only about how you went about choosing your PC, not any features you wanted, how did you go about choosing one?

EXPLORE PROCESS

##### Past PC Criteria

* Now tell me what you actually looked for in a PC.

EXPLORE

**USAGE OF -PC FEATURES (20 minutes**)

* Thinking now about PC features, I’d like to start by making a list of all the features you can think of —anything the PC can do, any settings you can change, etc.
* We’ll talk in a minute about which features you actually use, but I want to start with a list of everything your PC could do.

FLIPCHART

* Which features have you ever used, even if only once?

FLIPCHART

* Are there any settings you only changed once, but are really glad you could change?
* Why?

EXPLORE

* Which features do you use regularly?
* Why?

EXPLORE

**DESIRED FEATURES (10 minutes)**

* Are there any features your PC doesn’t have but that you wish it did?

EXPLORE

**MOTIVATIONS FOR BUYING (20 minutes)**

You’ve all been invited here because you own a PC.

* + - * What motivated you to buy your PC?

EXPLORE

* What do you think are some of the reasons that people would buy PCs?

EXPLORE

* What were ALL the factors involved in that decision?
* What was the single biggest reason?

EXPLORE

**CLOSING EXERCISE (10 minutes)**

* Finally, I’d like your creativity for a few minutes in coming up with ideas.
* Don’t worry about whether it’s a good idea or a bad idea.
* The only word I’m going to ban is “free!”
* Supposing a -PC manufacturer wanted to encourage you to buy tomorrow. What could they do?
* Just call out anything at all that occurs to you—obvious, profound, serious, silly, whatever.

EXPLORE & REFINE

* Thank the respondents and close the session

2. One could use projective techniques to determine the underlying values, attitudes and beliefs of consumers that they may not be consciously aware of. The use of word association, sentence completion and picture response techniques will be particularly helpful in this regard.

3. Some of the test words which are of interest are: Hewlett-Packard, Dell, Acer, Lenovo, microprocessor, customer support, style, PC features, etc.

4. In order to determine underlying attitudes toward Dell PCs, sentence completion could be used as follows:

A person who buys Dell PCs is

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As compared to Hewlett-Packard, Dell PCs are

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dell PCs are most liked by

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When I think of Dell PCs, I

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Just being a part of different types of social media and analyzing what people are talking about can provide Dell with a basic understanding of customers. Furthermore, Dell can create private online communities, which can play the role of extended focus groups. The members are carefully recruited, and membership is only by invitation. Expert facilitators engage the members regularly to build familiarity and a pattern as the customers start to view the community as their own. Another way for Dell to conduct a focus-group type of research involves participant blogs. The general approach is to define a specific topic and then recruit participants to blog about that topic.

Depth interviews can be conducted in social media by Dell in a similar manner. Several projective techniques can be easily implemented using social media communities. The unstructured and indirect form of questioning on social media has consumers willing to project their underlying thoughts, motivations, and feelings regarding the issues of concern.

**Chapter 5**

1. The advantages of Internet surveys are: high on control of the field force, perceived anonymity of respondents, obtaining sensitive information and speed. It is low on social desirability, interviewer bias (none), and cost. This method is also moderate or moderate to high on flexibility of data collection, diversity of questions, use of physical stimuli, and quantity of data. Its disadvantages are: low or low to moderate sample control, control of the data collection environment, and response rate.
2. Students should apply Table 5.1. Dell could have used social media by posting the survey link on highly followed social media sites and inviting the site users to participate.
3. Yes, the personal or mechanical observation methods can be used. Trained observers or cameras can record the respondents as they shop for notebook computers in stores such as Best Buy, Office Depot, etc.
4. Possible answers include store/mall intercept interviews, telephone interviews, mail/mail panel surveys, and internet surveys. Students should apply the logic of Table 5.1 to arrive at an answer. How they apply Table 5.1 is more important than the actual survey method they recommend.

**Chapter 6**

1. Causal research is needed to assess the relationship between the advertising and the Dell image. The best research design in this case is the pretest-posttest control group design. This design allows us to most precisely measure the effect of the advertising (an advertisement or commercial) on the Dell image. It can be conducted in a laboratory by first randomly assigning respondents to one of two groups. One group will be shown the new commercial; the other will serve as the control group and will be shown the old commercial. A pre-test of attitudes towards Dell can be given to both the experimental and control groups. Then the commercials can be shown to the appropriate groups. Afterwards, a second test of attitudes towards Dell can be given to the two groups and conclusions drawn. Yes, this design can be implemented in social media by using a social media community panel. The two groups can be drawn from the panel.

2. The static group design is most appropriate if Dell wants to determine consumer’s response to a single stimulus, e.g., a new advertisement or commercial, because it allows us to use a control group in experimentation. Control groups enable us to measure the effect of the independent variable (new Ad) on the dependent variable (e.g., image of Dell) since we can compare results of the experimental group against the control group. The static group design could be conducted by assigning respondents to either the control or experimental groups. This could be done by convenience by having each interviewer designated to show their interviewee either the old commercial (the control group) or the new commercial (experimental group). After reviewing the commercial, the respondent would answer a questionnaire measuring attitudes towards the catalog. The effect of the game would then be measured as O2-O1.

1. Randomization is possible and several schemes can be devised. For example, after gaining compliance of the respondent, a coin could be tossed to determine which commercial would be shown. If the coin lands on heads, the old Dell commercial is shown, if it lands on tails, the new commercial is shown. Other ideas are possible as long as they rely on some random event to determine which commercial is shown to the respondent.

**Chapter 7**

1. In the Dell questionnaire, the question numbers illustrate a nominal scale, question 1 is an ordinal scale, and question 4 an interval scale. None of the questions incorporate a ratio scale.

2. Students should be able to illustrate all the primary scales (nominal, ordinal, interval and ration), including the rank order and constant sum scales.

3.

Likert Scale:

Strongly Strongly

Disagree Disagree Neutral Agree Agree

I prefer Dell computers 1 2 3 4 5

Semantic Differential Scale:

Dell Computers

Strong preference \_ \_ \_ \_ \_ \_ \_ No preference

Stapel Scale:

Dell computers

+5

+4

+3

+2

+1

Preference

-1

-2

-3

-4

-5

4. Please indicate your preference for the following three brands of computers by assigning each brand a rating of 1 to 7, where 1 = Not preferred, and 5 = Greatly Preferred. .

Brand Not Preferred Greatly Preferred

Dell 1 2 3 4 5

Lenovo 1 2 3 4 5

Acer 1 2 3 4 5

**Chapter 8**

1. The Dell questionnaire was designed by a professional marketing research firm. As such, it is well-designed. However, still the students should suggest some improvements. For example:
2. Question 1 can be made more unambiguous by asking, “Approximately how many hours per week do you spend online in a typical week? This …….”
3. For questions 8 and 10A, the 1 to 9 scale responses with descriptors should be printed for each item. This would make it easier for the respondents.
4. There are too many age categories and some categories should be combined to arrive at a fewer number.

2. -6.

Questions 2 to 6 give students experience in designing and critiquing a questionnaire. They should follow the principles discussed in this chapter.

**Chapter 9**

1. Programs that can be designed pertain to strategic aspects such as market segmentation, as well as programmatic aspects related to product, pricing, promotion and distribution. A wide variety of answers are possible.

2. Students should conduct the Internet and social media search. A variety of answers are possible.

3. Target population: American consumers

Sampling frame: Household telephone numbers across the U.S. generated by using efficient random digit dialing software.

Sampling unit: Adults within households

Sampling technique: simple random sampling (random digit dialing)

Sample size: 500

Execution: Generate a random sample of household telephone numbers using efficient random digit dialing software. Use the next birthday method to select an adult in the household for the interview.

4. General social media content available in the public domain may not be representative of all notebook users. The sampling frame is biased and limited in that only consumers who are online and engaged in social media are represented. Even so, consumers who are heavy users of social media have a greater probability of being sampled. Yet, there are ways in which one could improve the representativeness of information gleaned from general social media analysis and monitoring.

• Instead of targeting an entire site, select sections of sites that suit the brand’s profile. Careful screening can result in a more targeted and representative sample.

• Narrow your search results by designing search queries that mine social media content with consumer-, category-, or brand-related terms.

Use text analysis that detects age, gender, geography, or other characteristics that distinguish different types of voices and then filter the results to more accurately reflect your target population. This information may be obtained from publicly available social media profile information of the individuals posting comments.

**Chapter 10**

Students should search the Internet and design an appropriate questionnaire. They can also use parts of the questionnaire given in the case.

1. Approaching a random student on campus to take part in a survey can be an arduous and monumental task. Many students are self-absorbed and only want to acknowledge those individuals that understand their plight.

Fortunately, fourth-fifths of the individuals that I surveyed were eager to express poignant thoughts. As an amateur fieldworker, I was able to convince students to take the questionnaire by communicating that their opinions could have a profound influence

2. The most difficult part of survey for the respondents was determining how they should answer the open-ended question regarding the future products to be introduced by Dell. Many students are often pressed for time and it was very interesting to evaluate how they answered this question with only a few minutes to spare.

3. Training should cover all phases of the interviewing process: making the initial contact, asking questions, probing, recording answers, and terminating the interview.

4. Supervision should involve quality control and editing, sampling control, control of cheating, and central office control.

5. The fieldwork issues will relate to quality control and editing, sampling control, and central office control.

*Note: The exercise is straight forward. However, some students may have difficulty downloading to computers in computer labs with certain types of firewalls. Peer-to-peer collaboration will usually allow those more familiar with procedures for accessing documents from the web to help others successfully complete downloading. For example, if lab computers restrict copying directly to the hard drive, then students can download to a network-based folder or simply download directly to an external drive. After this, the SPSS or Excel program could be opened, and the downloaded file can be accessed and opened.*

The recoded data file and the relevant SPSS and Excel outputs for questions 6 to 14 are posted on the Instructor Resource Center on the Web site for this book. It should be noted for questions 1 to 9:

1. Majority of the respondents, 213 out of 372 or 57.3%, are heavy users.
2. The largest group of the respondents, 159 out of 372 or 42.7%, consists of light users.
3. The total number of things done online ranges from 0 (1.3%) to 7 (12.4%).
4. Majority of the respondents, 208 out of 372 or 55.9%, are very satisfied.
5. Majority of the respondents, 195 out of 372 or 52.4%, are less likely to recommend.
6. Majority of the respondents, 240 out of 372 or 64.5%, will definitely choose Dell.
7. The largest group of the respondents, 137 out of 372 or 36.8%, consists of might or might not have purchased.
8. The largest group of the respondents, 129 out of 372 or 34.7%, consists of might or might not have purchased.

a. Majority of the respondents, 216 out of 372 or 58.1%, are college graduates.

1. The age distribution is quite even across the four groups.
2. The largest group of the respondents, 92 out of 372 or 24.7%, have incomes between $50,000 and $74,000.

**Chapter 11**

The relevant SPSS and Excel output files for questions 1 to 11 are posted on the Instructor Resource Center on the Web site for this book.

1. See the Dell 11 Recoded Frequencies file.

2. None of the cross-tabulations are significant. Thus the demographic variables do not explain overall satisfaction, would recommend Dell, or likelihood of choosing Dell.

3. Only income is significant in explaining q9\_5per. A greater percentage of the respondents with incomes of $75,000 or more would have purchased Dell. None of the demographic variables are significant in explaining q9\_10per.

**Chapter 12**

The relevant SPSS output files are posted on the Instructor Resource Center on the Web site for this book.

1. The mean response on all the variables, q8\_1 to q8\_13, exceeds 5.0.

2. The differences for all the variables, q8\_1 to q8\_13, are significant. The “very satisfied” have higher mean scores.

3. The differences for all the variables, q8\_1 to q8\_13, are significant. The “definitely recommend” have higher mean scores.

4. The differences for only four variables, q8\_7, q8\_9, q8\_10, q8\_11, are not significant. For the remaining variables, the “definitely choose” have higher mean scores.

5. The paired samples t test reveals that the difference is not significant at the 0.05 level.

6. The paired samples t test reveals that the difference is significant at the 0.05 level.

7. The paired samples t test reveals that the difference is not significant at the 0.05 level.

The relevant SPSS output files for questions 8 to 12 are posted on the Instructor Resource Center on the Web site for this book.

1. The regression is significant with an R square of 0.364 and an adjusted R square of 0.338. The coefficients for q8\_4, q8\_6, and q8\_8 are significant and negative. Thus, higher evaluations on these factors lead to greater satisfaction with Dell. Note that satisfaction is measured so that lower numbers denote higher satisfaction whereas higher numbers denote more favorable evaluations on q8\_1 to q8\_13. Hence, the negative sign of the coefficients.
2. The regression is significant with an R square of 0.205 and an adjusted R square of 0.172. The coefficients for q8\_1 and q8\_4 are significant and negative. The p value for the coefficient for q8\_13 is 0.052. Thus, higher evaluations on these factors lead to greater likelihood choosing Dell. Note that likelihood choosing Dell is measured so that lower numbers denote higher likelihood whereas higher numbers denote more favorable evaluations on q8\_1 to q8\_13. Hence, the negative sign of the coefficients.

**Chapter 13**

1. The students should be encouraged to write an objective report. The report should be simplified presentation of facts. The analysis and the findings should be clearly described.

Social media, particularly blogs and Twitter, can play a crucial role in disseminating the results and the report of a marketing research project and the decisions made by the company based on the findings. Google bought over a blog platform known as BlogSpot ([www.blogger.com](http://www.blogger.com)) to allow individuals and companies to disseminate information to others at little to no cost at all. Likewise, blogs can also provide an avenue for a company to obtain consumer reaction to the research findings as well as their feedback on the decisions made and actions taken by the company based on the research findings.

Social media research results can be effectively presented using charts and graphs such as the Twitter trends’ statistics graph.Social media community members’ stories can often be effective illustrations of statistical findings when used in reports or executive presentations.

1. The recommendations should be supported by the analysis conducted. The report should be useful from the perspective of a marketing manager.

3. The presentation should present the salient aspects of the report, with an emphasis on conclusions and recommendations.

4. This could be done in class or as a homework assignment.

5. The most challenging part is to make the presentation in the allotted time, i.e., ten minutes.

6. Planning and rehearsing the presentation are critical.