# PART 4

# Analyzing and Reporting Findings

# 14 Analyzing Verbal and Other Qualitative Data

## Learning Objectives

1 Explore the difference between the analysis of quantitative and qualitative data
2 Discuss the types of information that can be revealed through analyzing data
3 Explain the process of transcribing recordings
4 Learn the methods of coding qualitative data
5 Discuss the software available to assist with qualitative coding and analysis

## INNOVATIVE RESEARCH DISCOVERS THE 'YUCK' FACTOR

If you are a grocery store owner, one of the decisions you have to make is how to arrange the products in your store. The most common system is to put similar products together for convenience. However, researchers have discovered another issue, which they call the 'contagion' factor. All shoppers buy products, such as cat litter and toilet bowl cleaner, that elicit feelings of disgust but need to be purchased anyway. But who would have guessed that lard was also a product that causes people to feel uneasy?

Researchers learnt about the contagion factor by placing products, one of which is a neutral product and one a 'disgust' product, next to each other in a grocery cart. They then asked participants if they would purchase the products. This exercise was done a number of times with the different products in different arrangements. The researchers discovered that when neutral products were next to a 'disgust' product they were rated as less acceptable. The 'disgust' product was 'contaminating' the neutral product.

*Questions*: What recommendations for additional research would you make to a grocery store based on these findings? Can you think of any other unique research that another type of retail establishment could conduct?

*Source*: Morales and Fitzsimons, 2007

# 14.1 Analysis of Quantitative versus Qualitative Data

The data from quantitative research are in the form of numbers that can be averaged, compared and contrasted. The resulting statistics are used to represent the level of a form of consumer behavior or consumer preference within a targeted population segment. Management may not understand how the statistics were obtained, but they can easily understand the averages and percentages and, therefore, trust the resulting information.

In contrast, qualitative research results in verbal data and images including recordings, written words and sometimes photos or videos. These data cannot be statistically manipulated, compared and contrasted. In addition, the analysis does not result in easily understood percentages. For this reason, management may well misunderstand and mistrust the resulting analysis (Johnson, 2007).

Rather than proving facts using statistics, the analysis of qualitative data has as its focus the search for meanings. This is because qualitative research is used to answer the question of 'Why?' The answer will always be more complicated to explain to management than just a percentage or average. In fact sometimes the reasons for consumer behavior that are uncovered through research can be quite surprising. The box below demonstrates how important these insights are, particularly for small businesses.

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### HOW IMPORTANT IS RESEARCH FOR SMALL BUSINESSES?

Why do 50 per cent of Canadian small businesses fail within their first five years? An article on the 11 most common mistakes made by Canadian entrepreneurs lists lack of market research as the number one error that can cause a business to fail. Because the entrepreneurs didn't first conduct research of the existing environment, they sometimes didn't even know they had competitors when they started their businesses! They also didn't research the marketplace and as a result didn't know who to target as potential customers. As a result, these Canadian businesses often had to change their definition of their target market once they were already in business. Not knowing your competitors or customers is a very expensive, and often fatal, mistake! This mistake could have been avoided if marketing research had been conducted! Here's a list of most common mistakes that lead to business failure:

1　Failure to conduct marketing research
2　Failure to understand the impact of fast growth
3　Lack of cash flow
4　Poor communication with partners
5　Poor record keeping and administration
6　Ignorance of tax credits
7　Failure to network
8　Unfocused sales strategies
9　Poor grasp of marketing
10　Staffing difficulties
11　Hesitancy to reach out for help

*Source*: Glandfield, 2006

**Table 14.1  Differences in analysis**

| Quantitative Analysis | Qualitative Analysis |
|---|---|
| Statistics that describe behavior | Recommendations based on concepts and categories |
| Analysis of quantitative data occurs after research has been completed | Analysis of data occurs while research is still being conducted |
| Statistics are manipulated for new meanings | Data are repeatedly analyzed by researchers for new insights |

### 14.1.1 The art of qualitative research

Qualitative research, as with quantitative research, is conducted in order to answer a research question. However, a skilled qualitative researcher may find more in the data than just the answer to a research question. Quantitative research is usually conducted using a survey methodology. This limits the responses of participants to the issues on the survey form. Because the subjects involved in qualitative research are allowed to provide any additional information they feel is important, there will be a wealth of data. These data may provide new insights to help answer the research question. In fact, it may turn out that the subjects have an entirely different view of the solution to a problem or a new opportunity.

Because the research process may reveal unexpected ideas and opinions it is important that regular meetings are held between researchers and the management of a company during the research process. These meetings will be to share the unexpected insights that have resulted from the research. This will give the company's management the opportunity to discuss whether they wish to have these insights further explored by adjusting the research methodology.

The analysis of qualitative data is also unique because it starts without predetermined categories in which to place ideas or opinions. Rather, new insights will reveal themselves as the data are repeatedly analyzed by researchers. The goal of such analysis is a full description of the attitudes, values and opinions of consumers. The differences between analyzing quantitative and qualitative data are summarized in Table 14.1.

## 14.2 The Analysis Process

The steps involved in analyzing qualitative data include organization of the data, review of the data, coding, and analysis. The most significant difference between quantitative and qualitative analysis is that with qualitative analysis, rather then merely quantifying responses researchers are looking for patterns or themes in the data. Sometimes management may misunderstand the qualitative research process (see the box below).

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### WHAT DATA CAN AND CANNOT TELL US

There has been frequent criticism against focus groups as a research methodology. However Eric Johnston, a qualitative market researcher, has some counter arguments. He cites three main criticisms against focus groups and gives his response in the magazine *Marketing News*.

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*Criticism 1*: Focus group research can't predict whether a company's future product will be successful.

*Response*: No research can predict the future. Nor should research findings be the final decision maker. Decision making is management's job. They should use focus groups data, along with other research findings and their own experience, when making product development decisions.

*Criticism 2*: Focus group discussions evoke rational responses from consumers whereas purchase decisions are irrational.

*Response*: A well run focus group is not merely a question-and-answer session. Its purpose is to get beyond the rational by using group interaction between members. In addition, focus groups often use projective techniques whose sole purpose is to elicit emotional responses.

*Criticism 3*: Reliance on focus group research means that innovative ideas proposed by employees will be ignored.
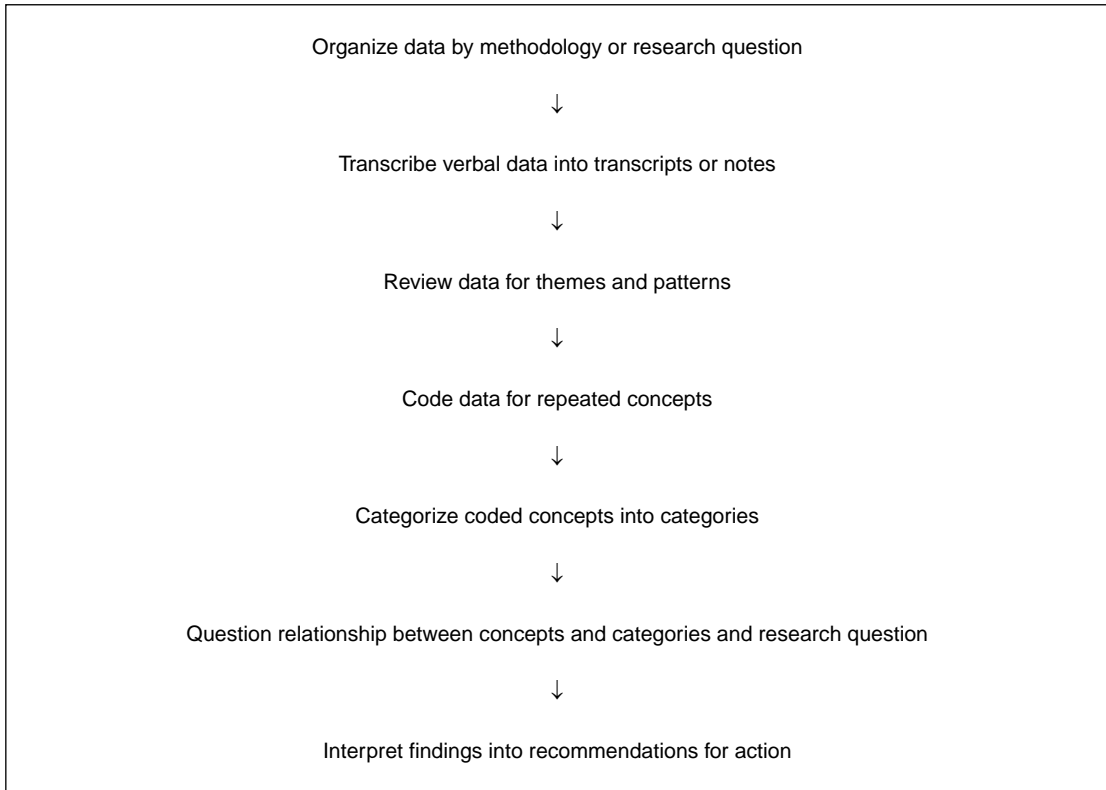
*Response*: Focus groups should never be used as a substitute for company creativity. However, focus groups can be used to learn how consumers might react to a groundbreaking idea. A negative reaction means that the idea may need more work – not that it should be abandoned.

*Source*: Johnston, 2006

While the analysis of qualitative data is more art than science there are still distinct steps to the process. First, researchers must organize the data. The next step is to transcribe any verbal information onto tape. Once the data are organized and transcribed researchers review the material by reading through it with no preconceived idea of what will be found. After this initial review researchers will again examine the data, all the while coding common concepts. Once this level of coding is complete, the researchers will again review the material to find any concepts that need to be broken down into more than one category. They will then analyze these concepts and categories by questioning what relationship they have to the research question. The final step is to interpret this information into recommendations for action.

### 14.2.1 Data organization

Data organization involves both the collection and the transformation of the collected information. Organization of data according to research question can be particularly important for qualitative research, as the findings may need to be compared with the findings from quantitative data on the same subject (Harradine and Ross, 2007). Some of the data resulting from the research might be lists that have been collected on large pieces of paper. Focus groups commonly use this method so that everyone present can view the responses being provided to questions asked by the moderator. The lists are commonly written in marker pen in large print and then hung on walls around the room. These lists must be taken down, labeled and dated. Each label should include the research question that resulted in the list of information. The date of the focus group and the name of the researcher should also be noted on each piece of paper.

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Organize data by methodology or research question

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Transcribe verbal data into transcripts or notes

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Review data for themes and patterns

↓

Code data for repeated concepts

↓

Categorize coded concepts into categories

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Question relationship between concepts and categories and research question

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Interpret findings into recommendations for action
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**Figure 14.1   The process of analyzing qualitative data**

Once these pieces of paper are back in the office, the data should be typed. If the lists include additional notations, such as item numbering when participants have been asked to prioritize, this information must also be added to the typed list. Sometimes arrows or other visual notations will be on the paper. If they cannot be typed they should be described in the typed document. This typed list cannot totally duplicate all the information contained on the original sheets and, therefore, these should be saved in case they are needed for analysis.

Written materials from any other projective techniques should also be collected. These may be ideas written on index cards, cartoons with speech bubbles or sentence completion forms. Drawings made by participants should also be organized and saved by having them scanned into a computer program. These scanned drawings will also now be available to be added to the final report. Digital photographs that have been taken by participants can also be downloaded into the computer, both for analysis and for future use in the final report or presentation.

When all the material has been written down data from focus groups it can be organized by research question. If more than one group was conducted, the information should also be organized by group. Projective data should be organized by technique. For example, all sentence completion forms and all drawings should be kept together. Interview transcripts should be organized by research question. Intercept interviews must be organized by location and expert interviews by topic. Observational research forms are usually organized by the location where

the observations took place. Ethnographic research materials should be organized by site visit, while the material produced by grounded theory research needs to be organized by topic.

### Organization of data

- Focus groups organized by research question and group
- Projective techniques organized by technique
- Interviews organized by topic
- Intercept interviews organized by location
- Expert interviews organized by topic
- Observational research organized by location
- Ethnographic research organized by site visit
- Grounded theory research organized by topic

## 14.2.2 The art of transcribing recordings

Qualitative interviews and focus groups will both result in tape recordings that will need to be transcribed. If possible, a word for word transcription should be produced. However, if there is a great deal of taped material this may not be economically feasible. A good transcript will allow a company to experience the research process as if they were there (see the box below).

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### WOULDN'T YOU LIKE TO KNOW WHAT THEY SAY ABOUT YOU?

Sports Marketing provides information to companies that manufacture sports equipment on how their product is selling in comparison to the competition's. Besides the usual quantitative data, Sports Marketing also gathers qualitative data through expert interviews with a panel of 300 retailers. The retailer group is interviewed twice yearly on sales and marketplace trends. They are also asked to rate their suppliers of sporting goods. These reports allow the manufacturers to see how their products compare to their competitors' in the minds of retailers.

However, in addition the reports contains qualitative information such as direct quotes and comments about the brand. For the retailers, it is almost like eavesdropping on what store owners are saying about you. What is the cost of such a service? A complete product report, such as on the bike industry, costs $4,000.

*Source*: Delaney, 2005

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It is best if the researcher who moderated the focus groups or conducted the interviews listens to the tape before transcription. While a researcher is actually conducting an interview or moderating a focus group, part of their awareness will have to be focused on that process. Listening to the proceedings afterward they can simply focus on what is being said. While they are busy conducting the research, it is always difficult for a researcher to retain all that is happening.

Listening to the tape will refresh a researcher's memory of what was said. In addition, the tone of voice used and even the silences between speech can provide insights.

After listening to the tape, transcribing the material is the next step in the analysis process. While a researcher is listening to a tape, they can be typing up notes on the main points being made. Once the transcription process starts, the researcher can pause the tape while they make notes on new insights or memories. For example, there may have been a focus group member who spoke rarely but followed the proceedings closely with evident interest. This gives more weight to his or her opinions than if the researcher remembered that the focus group participant seemed bored and distracted. It is difficult for researchers to take notes on behavior during a focus group or interview, as it can disrupt the proceedings and make participants feel uncomfortable. Therefore these notes should be added to the transcript. The same or different participants will frequently repeat information, and a researcher can quickly pick up patterns and develop a shorthand notation process.

Transcribing tapes is much more than just a technical task, which is why it is best if a researcher prepares a transcript personally. The goal of transcription isn't a word for word perfect transcript. Instead, while the transcription is taking place, a researcher should concentrate on recording information that addresses the research question. While the conversation may stray and other topics be discussed, these topic areas are important only in how they relate to the main research question. For example, if the research concerns the cost of a product, such as cell phones, participants may start discussing where they like to shop. A researcher will then analyze this conversation for its relevance to the research question on cost, by noting whether the stores mentioned are discount outlets or high priced specialty stores. Information on a great sale on shoes that was added by one participant can be ignored.

When transcribing a tape, it is not important to note the names of speakers as they do not need to be identified personally. However, it is still important to attribute comments to individuals to determine if there is consistency in the comments they provide throughout the focus group. Instead of names, a researcher can add a code or a number to represent each speaker. In addition, comments on tone of voice or emotion can be added using the same system.

One means of adding such detail is to type the transcript in a column format. The first column will have the words spoken during the session, whether interview or focus group. The second column will contain the researcher's notes on who is speaking, their tone of voice and any other observations noticed by the researcher when the research was conducted. The third column will be used for coding purposes. Because this column transcript will be referred to frequently during the analysis process, it is important to leave additional space where handwritten comments can be added.

# 14.3 Coding Qualitative Data

Once the transcriptions are complete, researchers should review all of the data. This review should be conducted with an open and relaxed frame of mind. At this stage of the analysis, researchers must let the data reveal insights rather than impose ideas that were formed while conducting the research. While the impressions formed during the research are important and should be retained, it is also important for researchers to look at the data with fresh eyes. It might be that comments and ideas which were initially overlooked can now be seen as being important. An example of a research study that required repeated review of the transcripts is shown below.

Once data have been transcribed and reviewed, researchers will begin to code. Coding is used to note the repetition of ideas, opinions or facts. The first coding will be conducted to examine the data for answers to the research question. For example, the research question might have asked how a visit to the dentist could be made more pleasant. A focus group of clients would be asked for their ideas for improvements that could be made to a dental clinic. A transcript would be coded for the times when any mention of the ideas for improvements was mentioned. These instances are coded so that researchers can then return to the information to analyze if many of the responses gave similar ideas or if any unique suggestions were provided.

The transcribed notes will then be analyzed again to code other topics that arose during the research. For example, besides discussing ideas for improvements, researchers might find that on multiple occasions trouble reaching the dental office due to a lack of convenient parking or public transportation options was mentioned. Another issue discussed might have been the services now offered at a new, competing, dental office. By coding these data, researchers may find that it is this new competition that received the most mentions. Below is an example of how data are being collected from online sources.

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An example of this process in action is the research of shopping habits conducted by Virtual Surveys in the UK. Bloggers were asked to keep a week-long diary of their shopping habits. Content from the blogs was then shared amongst the group anonymously. The blog members then commented on each others shopping habits. Of course, even online an experienced moderator is still needed to keep the discussion lively and on track.

*Source*: *Marketing*, 2007

The first step in the analysis of all of the written material is coding for the main concepts that appear in the transcripts. Researchers read through the documents to see if there are any concepts that are raised repeatedly. If a study involved the reasons why students leave university before completing their studies, the main concepts that might appear could be 'money', 'studies too difficult' and 'unfriendly staff'. However, a more surprising concept that might be discovered would be 'got good job offer'. This analysis takes skill, as the wording used in each individual comment may not directly describe the concept and it will certainly take more than one reading of the material by a researcher before all of the concepts become clear. It is a researcher's responsibility to notice the similarities in comments and that they may all belong to a single concept.

## Categories

Once researchers have finished coding for concepts, they may find that some need to be further broken down into categories. These concepts and categories are important as they are the building blocks from which researchers will make their recommendations for action. For example, many comments in a transcript may involve the concept of the price of a product. Several participants may state that they don't buy a product unless it is on sale. Other participants may state that they buy a competing product because it is cheaper, while some may state directly that the price of a product is too high. While all of these involve the price of a product, a researcher may decide they are too dissimilar and break them down into three categories: 'don't buy because can't afford, 'competing product purchasers', and 'non-purchasers'. The researcher may then make different recommendations for attracting each of the first two groups and recommend no action on the third.

Researchers can code transcripts using highlighting markers with a different color for each concept and category, or alternatively the concept and category name can be noted in the margins of a document. As researchers code the material for the answer to a research question, each time a researcher comes across a statement that deals with the issue of the price being more than a consumer is willing to pay this will be coded. However, with qualitative research there may be other concepts that arise that are worth noting (which is one of the benefits of qualitative research). For example, in the discussion on price, a researcher might note that several consumers expressed how much they enjoyed the design of the product. While the research question had not addressed the seasonality of price sensitivity, this would still be useful information for management.

**Table 14.2  Building categories**

| Transcribed notes → | Concepts → | Categories |
|---|---|---|
| Like the color<br>Great appearance<br>I love lots of chrome! | Style → | Style |
| Over my budget<br>Wish I could afford it<br>More expensive than my current car | Price → | Product cost |
| Takes too much gas<br>Insurance probably expensive<br>Requires specialized shop | Price → | Operating expense |

### 14.3.1 Using coding to develop recommendations

Once coding is completed, all material will be reviewed again to develop recommendations based on the coded concepts and categories. For example, a research question might have asked 'Why do consumers not purchase automobiles produced by our company?' The coded material may have revealed infrequent comments made on color, appearance, and amount of chrome. All of these comments the researcher will code under one concept – 'style'. Other comments made about the cost of the automobile a researcher will code under the concept of 'price'. Further analysis might now reveal that the concept of 'price' is actually two categories. One involves comments on the cost of the automobile, while the researcher might find that a separate category is now needed for those comments that involve the cost of maintaining such an automobile, including comments about gas mileage, insurance and repair costs. Based on this coding researchers might recommend that promotional material should address the reasonable cost of maintaining the vehicle and not just the low purchase price. Table 14.2 shows one example of how concepts and categories are built.

### 14.3.2 Software tools for coding

Software tools that assist in the analysis of qualitative data are now available. However, marketing researchers must decide if it is worth the money to purchase such software. If a research process has only involved one or two focus groups or interviews, the time saved in using software may not justify its cost and the time it will take for researchers to learn to use it. In this case, researchers may decide to rely on hand coding and analysis.

If researchers conduct qualitative research on an ongoing basis or have a large qualitative research study planned, then it may be worth their while to purchase and use coding software. While these software packages can save researchers the tedium of coding, they do not replace the analytical process of determining the concepts and analysis of the concepts and categories that result in recommendations.

A software package designed for qualitative research will help with the development of a system of coding and then applying the system to the transcribed text. It will also allow researchers to add brief comments to the data. These comments might explain nonverbal behavior that a researcher had noticed while the comment was being made. Researchers will also be able to link different codes between transcripts, memos and notes on different focus groups, interviews and

projective techniques. The software can also help in the preparation of final reports by displaying coded categories in a graph format. If there is a sufficient amount of data, once it is coded the number of responses that include a particular type of content can be quantified for management (Srnka and Koeszegi, 2007).

This process is started by a researcher selecting text in a transcript that belongs to a specific concept, which the researcher then names. Once this task is done the software will then search all the data files for identical text and code these occasions as the same concept. For example, the comment that a product is 'too expensive' will be coded as belonging to the concept of 'price'. The software will search all the transcripts and other written material for similar comments. In addition, the software can search for additional phrases that have the same meaning. Terms such 'costs too much' and 'not worth the price' can be added to the same concept.

# 14.4 Analysis of Qualitative Data Content

After the data have been organized, transcribed and coded, the next step in the process of analysis is to determine if there are any relationships between the concepts and categories. The purpose of developing relationships is to generate new ideas to answer a research question. These new ideas will be the basis for making recommendations for action. For example, one qualitative research study was used to examine the cultural effects of the country of origin of a product on British consumption behavior. As a result, it was noted that country of origin was important for some groups of products (Balestrini et al., 2003).

After all, management will want actionable recommendations from a study, not just analysis. A report that simply describes researchers' impressions will not be considered useful enough to justify the cost of the research. Possible recommendations might involve how to target new types of consumer segments, descriptions of the process of consumer behaviors, a comparison and contrast of consumer motivation, or an hypothesis of a relation between variables that will need to be verified by future quantitative research. Below is one example of ethnographic research that was used to provide such recommendations.

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### ETHNOGRAPHY GOES VIRTUAL

Every producer of retail goods knows that the placement of an item on a store shelf or a display rack will affect consumers' purchase behavior. One way to test this consumer behavior is to change store placement and displays to see how this affects sales. Of course, this is an expensive testing technique if the new placement negatively affects sales!

Frito-Lay decided they needed to conduct shelf placement research but they opted to conduct ethnographic research in a virtual, rather than a physical, store. A virtual convenience store was created online that would be used to test not only product shelf placement but also pricing and new product ideas. 'Shoppers' were recruited to visit the

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store through outsourced panels. When online, the research subjects were shown shelves that displayed not only Frito-Lay but also competing products and brands. The shoppers were not informed that the research was being conducted by Frito-Lay, only that they were free to purchase any product. Shoppers made their snack food purchases by clicking on the display. Different store displays were shown to see how placement affected product choice. In addition, after shopping was completed, some shoppers were surveyed online about their product choices.

Frito-Lay believes this online ethnographic research is more effective than interviewing, as shoppers would have a difficult time remembering their snack food purchase behavior. Did it work? Not only did Frito-Lay learn about shelf placement, they also made both pricing and packaging changes based on this research.

*Source*: Enright, 2006

## 14.4.1 Consumer segments

Coded qualitative research data can be analyzed for information on possible new market segments to target. A company may be aware of how to market their product to their current demographic and geographic segments, but qualitative data might reveal entirely new psychographic segments of which that company was unaware. These new segments will have been identified based on common values and attitudes that have been verbalized or displayed during the qualitative research process.

For example, a research focus group on a product for older consumers might have found that people aged 65–75 years old do not consider themselves as being older. Because they are still leading active lives, this segmentation category based on age may have no meaning for them. Instead, they may identify themselves as 'active adults' who just happen to be retired or on their second career. They may also think that they have no attitudes in common with people in the traditional category called 'senior citizens'.

Likewise, qualitative research data may uncover segments of individuals who identify with various types of hobbies. What they will all have in common is a specific interest, say in crafts, and will therefore identify themselves by this, for example as 'crafters'. As a result, researchers might recommend that a company commissioning research on this topic considers producing products aimed at this new segment.

Qualitative research might also uncover new usage categories. In discussions of food consumption, it might be found that food ordinarily consumed at breakfast is also enjoyed at other times of the day. Based on a finding that cereal is also eaten at the office, researchers might recommend a new promotional campaign based on this usage.

## 14.4.2 Consumer behavior processes

Besides new market segments, qualitative research can provide insights into consumer behavior processes. A company that makes readymade dinner entrées may be interested in the meal

preparation processes of today's busy dual career families. Analysis of ethnographic data might reveal that parents would like to have everyone sit down for meals together, but that children have their own diet preferences. Using this knowledge, researchers could recommend that a company produces prepackaged dinners with a choice of side dishes so that everyone can eat together and yet still have the food they each want. If it is found that parents still want to have their families maintain a little formality when dining, researchers might then recommend that the packaging includes decorative paper napkins.

An observational study on how people drive their cars might find that drivers need cup holders that can keep their beverages hot or cold when they spend long periods of time in the car. In addition, observing children traveling in their car seats may have revealed a need for a small storage area for their food. These are ideas that might not otherwise have been discovered in quantitative survey research. However, analyzing the data from qualitative research can reveal useful ideas such as these that can be recommended to companies.

### 14.4.3 Comparing and contrasting consumer traits

While researchers are analyzing data, they may note some differences in the consumer behavior process based on demographic or psychographic traits. For example, a qualitative research study might have been specifically designed to examine and compare the differences in cell phone usage for different age groups. These types of differences will appear in qualitative data from focus groups, interviews or ethnographic studies. In this case researchers might perhaps find that women were using the photo feature to take pictures while shopping of possible purchases for their home that they can then view later. Meanwhile, it may also be found that males were using their cell phone cameras to take candid photos of their friends. These are ideas that can be developed into recommendations.

### 14.4.4 Development of hypotheses

Another recommendation that may result from an analysis of qualitative data is an hypothesis about the relationship between two variables. This hypothesis cannot be said to be proven, based on the qualitative research. However, it might be so intriguing that the researchers recommend quantitative research be conducted to determine the validity of this hypothesis. For example, qualitative research might find that the consumers who are nonusers of a product believe that the product is too expensive to operate. This fact could then be tested further with survey research.

### 14.4.5 Analysis of ethnographic and observational research data

The information provided by ethnographic and observational research will not be in a verbal format. Instead, the data will be in the form of notes on behavior, photos or video. Observation forms and notes must also be analyzed, but not by coding for words. Instead researchers will be looking for unique or repeated behavior that has been noted on the forms or in the photos or videos. Researchers can look for these data concerning the process of using a product, new ways of using a product, where consumers use a product and the mistakes they make when using a product – all of which may have been noted on the forms (Gummesson, 2007).

For example, observational research of consumers shopping at a clothing store can show how they travel through the store, which products they tend to buy first, and how long they spend in the store. If researchers notice that people seem to have a problem finding the fitting rooms, better signage may be recommended. In addition, if it becomes obvious that certain clothing racks are not being visited, it might be recommended that the store layout be changed. All of this information can then be used by management to make the store more user friendly.

Often ethnographic research may reveal that people use a product in a way that was not originally intended by the company that designed that product. These insights can be used to make recommendations on the redesign of a product or the development of a totally new product. For example, an ethnographic study may have been conducted on students living together in university-owned housing. An analysis of videos taken during the study may have found that students like to study while lying on their beds. From this study, it might be recommended that better lighting be provided above beds. After all, good research should result in increased revenue as shown in the box below.

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## EFFECTIVE RESEARCH PAYS FOR ITSELF IN NEW ZEALAND

There were four winners in the Market Research Effectiveness awards in New Zealand. These winners were chosen on the basis of the financial return provided to companies commissioning research.

In first place was the research conducted by Focus Research for Frucor. The campaign to introduce Just Juice Bubbles resulted in a product introduction that had sales of 170 per cent of the target. The campaign was successful because Focus Research and the marketing department of Frucor worked together both on the research and the resulting marketing strategy. Frucor didn't just want statistical analysis, they wanted to partner with a research firm that would help them translate the findings into business success. Thus Focus Research worked in partnership with Frucor to design a product that included the customer preferences discovered during the research.

Strategic partnerships are important if the kind of impressive result discussed above is to be achieved. Research Solutions held a seminar for their clients, the media and other contacts about why some research projects lead to strong financial gains for a company. The four factors that were identified were trust, risk taking, researchers having access to all departments of a company throughout the marketing research process, and listening to the researchers.

A company must trust researchers enough to not only ask their opinions but also to listen when those researchers make recommendations about the research methodology. Playing it safe when designing a research plan leads to safe findings that result in safe actions. Instead a company should listen and explore researchers' ideas on the best way to obtain the necessary data. To make the best possible use of market researchers' expertise, a company should ensure that researchers have access to decision makers in other departments of that company, including finance. Lastly, a company is paying for researchers' expertise. Therefore, they need to listen to the research findings even when these are not what they expected to hear.

*Source*: *NZ Marketing Magazine*, 2006

## Summary

1   The differences between analyzing qualitative and quantitative data include the fact that the analysis of quantitative data results in statistics that describe behavior. However, qualitative data are analyzed for insights into the motivation for behavior. Quantitative data are analyzed at the conclusion of research while qualitative data are analyzed while research is conducted. The analysis of qualitative data is an art that relies on the knowledge and skill of researchers. The analysis must only be conducted by researchers as they alone will have experienced the incidents that occurred during the research. In order that these incidents are not lost, researchers should hold debriefing meetings as soon as the research study has been concluded and even during the research process.

2   While qualitative analysis is an art, there is still a process to be followed. First the data must be organized and any verbal information transcribed. The data are then reviewed and coded for concepts and categories. Finally, the relationship between concepts and categories is questioned and the findings interpreted into recommendations for action. Data are organized based on the methodology and notes are then transcribed. This transcription can be verbatim or in note form. The transcription should be in a format that allows researchers to easily add insights and coding. The transcription is then reviewed for insights.

3   The most important step in the qualitative analysis process is the coding of the data. Both repeated and isolated incidents and comments are coded by theme and named as concepts. This can be done through physically marking the words and then distinguishing the type of comment by words or colors. From these coding will be built categories with common elements. There is now software that helps to make this task more manageable, but the ideas for the coding of concepts and categories must first come from researchers.

4   Analysis of coded data will include questioning the relationship between categories, and looking for insights that can be interpreted to answer the research question. The interpretation might reveal information on new potential consumer segments. It also might reveal information on consumers' behavior processes. Consumers could thus be analyzed for an interpretation of traits. In addition, hypotheses between variables may be established. Finally, analysis of nonverbal ethnographic and observational data can be used.

# Key Terms

**categories**   distinct groupings of data within a single broad concept

**coding**   reviewing the transcribed material and then using colors or words to indicate comments that address similar themes

**concepts**    comments that are noted on transcripts that all address a similar broad theme

**transcription**    typing either the exact words or a summarization of what is being said while listening to a tape of research participants

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## Discuss ion Question s

1   Why is the analysis of qualitative data an entirely different process from the analysis of quantitative data?
2   Why is it important to organize the data from qualitative research as soon as possible after completion of the study?
3   Why is it recommended that a researcher transcribe the tapes of a research study consisting of focus groups of potential students on any problems they have had with administration?
4   Why is coding of verbal transcripts as much an art as a science?
5   For a qualitative study of student athletes' attitudes toward their coaches, can you think of some concepts of data that might arise from the coded data?
6   Would you recommend using software to help with coding? Why or why not?
7   If you were reviewing the data from a qualitative research study on the relation-ship between students and music, what kinds of interpretation of the data might result?
8   Why is it essential that the person who conducts the ethnographic research analyzes the findings?

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# Recommended Rea ding

Auberbach, Carl F. and Silverstein, Louise B. (2002) *Qualitative Data: An Introduction to Coding and Analysis*. New York: New York University Press. While writing from the perspective of psychology, this book is still a good source of information on coding and analysis.

Burber, Renate, Gadner, Johannes and Richards, Lynn (eds) (2004) *Applying Qualitative Methods to Marketing Management Research*. Basingstoke: Palgrave Macmillan. A book that focuses on qualitative methods, with interesting information on analyzing the resulting data so as to be able to make recommendations for solving problems.

Daymon, Christine and Holloway, Immy (2002) *Qualitative Research Methods in Public Relations and Marketing Communications*. London: Routledge. While covering all expects of the research process, this explains the analysis process for researchers beginning their careers.

Denzin, Norman K. and Lincoln, Yvvonna S. (2003) *Collecting and Interpreting Qualitative Materials*. London: SAGE. Describes how to analyze visual material as part of the qualitative research process and also discusses computer-assisted analysis for qualitative research data.

Huberman, Michael and Miles, Matthew B. (eds) (2002) *The Qualitative Researcher's Companion*. London: SAGE. A collection of articles by experts in the field of qualitative research, this book has chapters on data analysis and interpretation.

Patton, Michael Quinn (2002) *Qualitative Research and Evaluation Methods*. London: SAGE. A thorough treatment of all aspects of qualitative research, the final chapters of this book have excellent information on the interpretation and analysis of findings.

Strauss, Anselm and Corbin, Juliet (1998) *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. London: SAGE. A sound reference book on all aspects of grounded theory, it also focuses on how to evaluate the results of research studies.

Analyzing Data