



MARKETING RESEARCH DASHBOARD CRITICAL THINKING AND MARKETING RESEARCH

Critical thinking is the art of analyzing and evaluating thinking with a view to improving it. While critical thinking is important to almost anything we do, it is especially important in evaluating and reporting research results. Many barriers to effective critical thinking have been identified, and several of these are directly applicable to reporting research.

Confirmation Bias

Confirmation bias exists when researchers interpret the evidence to fit pre-existing beliefs. Researchers must seek to find evidence that disproves their preexisting beliefs in order to avoid falling into this trap. Surprising findings should be evaluated relative to methodological and sampling choices that might have contributed to the findings. However, surprising findings should not be rejected or ignored outright.

Generalizing from Samples

When a sample is small or has not been randomly chosen, researchers must be very careful in making generalizations. Many samples in marketing research are not ideal. Even when researchers seek to draw random samples, they may face challenges in recruiting the sample that result in the sample being biased in subtle ways. Researchers must always seek to think about how the sampling method might have affected their results.

Claiming Causal Relationships between Variables That Aren't Really There

Some facts may be correlated in your data, but the relationship may be merely a statistical coincidence or the correlation may be caused by a third variable. To claim causation, researchers must be sure the appropriate research design was used.

Wrong Construct

In evaluating survey results, you may find that a construct is mislabeled because the items don't actually measure what they claim to measure. Evaluating the reliability and validity of constructs is essential to accurate reporting of scientific research.

Methodological Biases

Methodological choices can bring biases with them. For example, respondents are less forthcoming about some issues on the telephone as compared to an online survey. Long surveys may result in respondent fatigue and inaccurate answers. Word choice, graphics usage, and order of questions can affect responses. Researchers must actively think about how methodological issues may have affected their results.

In reporting results and making presentations, researchers must apply critical thinking skills to ensure their findings are presented objectively and accurately. Being sensitive to the above barriers so they can be overcome, or at least minimized, will help researchers to prepare better presentations.

baseline for additional studies. Also, many reports are used for comparison purposes. For example, they are used to compare promotional changes, image building tactics, or even strengths and weaknesses of the firm.

Format of the Marketing Research Report

Every marketing research report is unique in that it is based on the needs of the client, the research purpose, and the study objectives. Yet all reports contain some common elements. Although the terminology may differ among industries, the basic format discussed in this section will help researchers plan and prepare reports for various clients. The parts common to all marketing research reports are the following:

1. Title page
2. Table of contents
3. Executive summary
 - a. Research objectives
 - b. Concise statement of method
 - c. Summary of key findings
 - d. Conclusion and recommendations

4. Introduction
5. Research method and procedures
6. Data analysis and findings
7. Conclusions and recommendations
8. Limitations
9. Appendixes

Title Page

The title page indicates the subject of the report and the name of the recipient, along with his or her position and organization. Any numbers or phrases to designate a particular department or division also should be included. Most important, the title page must contain the name, position, employing organization, address, telephone number of the person or persons submitting the report, and the date the report is submitted.

Table of Contents

The table of contents lists the topics of the report in sequential order. Usually, the contents page will highlight each topical area, the subdivisions within each area, and corresponding page numbers. It is also common to include tables and figures and the pages where they can be found.

Executive Summary

Executive summary The part of a marketing research report that presents the major points; it must be complete enough to provide a true representation of the document but in summary form.

The **executive summary** is the most important part of the report. Many consider it the soul of the report, insofar as many executives read only the report summary. The executive summary presents the major points of the report. It must be complete enough to provide a true representation of the entire document but in summary form. Make sure your executive summary can stand alone. The rest of your report supports the key findings included in the summary, but the overview provided by the executive summary must nevertheless seem complete. While the executive summary comes near the front of the report, it should actually be written last. Until all the analyses are done, researchers cannot determine which findings are most important.

The executive summary has several purposes: (1) to convey how and why the research was undertaken, (2) to summarize the key findings, and (3) to suggest future actions. In other words, the executive summary must contain the research objectives, a concise statement of method, a summary of the findings, and specific conclusions and recommendations.

Research objectives should be as precise as possible, but not longer than approximately one page. The research purpose along with the questions or hypotheses that guided the project should also be stated in this section. Exhibit 13.2 shows a PowerPoint slide from a presentation that summarizes research objectives for a project in which employees' reactions to their company's consumer ads were measured. After explaining the research purpose and objectives, a brief description of the sampling method, the research design, and any procedural aspects are addressed in one or two paragraphs. Following this is a statement of key findings.

Exhibit 13.3 shows a slide that summarizes a few of the key findings from a research project. The findings presented in the summary must agree with those found in the findings section of the full report. Only key findings that relate to the research objectives should be included.

Finally, the summary contains a brief statement of conclusions and recommendations. The conclusion section of the report summarizes your findings. Conclusions concisely

Exhibit 13.2 Research Objectives

Research Objectives

- Measure and model the impact of Apex advertising on employees.
 - Measure employees perceptions of effectiveness, organizational accuracy, promise exaggeration, and value-congruence of Apex ads.
 - Measure outcome variables after viewing Apex ads: pride, trust, organizational identification, organizational commitment, customer focus.
- Measure the effect of preexisting employee organizational identification and customer focus on response to Apex ads.



Exhibit 13.3 Selected Key Findings from a Research Project

Key Findings

- Apex employees identify strongly with Apex, averaging 6.3 on a 7-point scale across all Organizational Identity items.
- Perceived advertising effectiveness with consumers has strong effects on all outcome variables. Employees thus care about the effectiveness of advertising. In particular, effectiveness is very strongly associated with employee pride.
- The perception that ads portray the organization accurately has moderate to strong effects on all outcome variables. Employees thus desire for Apex to be portrayed in ads consistent with how they see their company.



explain research findings and the meaning that can be attached to the findings. Recommendations, in contrast, are for appropriate future actions. Recommendations focus on specific marketing tactics or strategies the client can use to gain a competitive advantage. Conclusions and recommendations typically are stated in one to two paragraphs.

Introduction

Introduction Contains background information necessary for a complete understanding of the report.

The **introduction** contains background information necessary for a complete understanding of the report. Definition of terms, relevant background information, and the study's scope and emphasis are communicated in the introduction. The introduction also lists specific research objectives and questions the study was designed to answer, as well as hypotheses, length of the study, and any research-related problems. Usually hypotheses are not stated formally. They are stated in everyday language. For example, a research team can summarize

their hypotheses about the variables they believe will affect senior Internet adoption as follows: “We expected the following factors to be positively related to senior adoption: income, education, curiosity, and technology optimism.” Upon reading the introduction, the client should know exactly what the report is about, why the research was conducted, and what relationships exist between the current study and past or future research endeavors.

Research Methods and Procedures

Methods-and-procedures section Communicates how the research was conducted.

The objective of the **methods-and-procedures section** is to communicate how the research was conducted. Issues addressed in this section include the following:

1. The research design used: exploratory, descriptive, and/or causal.
2. Types of secondary data included in the study, if any.
3. If primary data were collected, what procedure was used (observation, questionnaire) and what administration procedures were employed (personal, mail, telephone, Internet)?
4. Sample and sampling processes used. The following issues are usually addressed:
 - a. How the sample population was defined and profiled.
 - b. Sampling units used (for example, businesses, households, individuals).
 - c. The sampling list (if any) used in the study.
 - d. How the sample size was determined.
 - e. Was a probability or nonprobability sampling plan employed?

Many times when writing the methods-and-procedures section, the writer gets bogged down in presenting too much detail. If on completion of this section, the reader can say what was done, how it was done, and why it was done, the objective of the writer has been fulfilled. A presentation slide summarizing the methodology used in the senior adoption of the Internet study appears in Exhibit 13.4.

Exhibit 13.4 Slide Summarizing Research Methodology

CRITO Consortium
University of California, Irvine

Research Methodology

- National telephone survey of seniors 65+
- Questions appended to IDC's technology panel
- 200 Internet users and 245 nonusers (random sample)
- Questions measured:
 - Values
 - Curiosity and self-efficacy (proactive coping)
 - Technology attitudes/behavior
 - Technology optimism, technology discomfort, technology innovativeness
 - Internet use
 - Amount and variety of use; attitudes towards use
 - Demographics
 - Age, education, income, sex

CENTER FOR RESEARCH ON INFORMATION TECHNOLOGY AND ORGANIZATIONS

Data Analysis and Findings

The body of the marketing research report consists of the study's findings. Data analysis requirements differ for each project, so the presentation of findings will be somewhat different for each project. No matter how complicated the statistical analysis, the challenge for researchers is to summarize and present the analysis in a way that makes them easy to understand for nonspecialists. Findings should always include a detailed presentation with supporting tables, figures, and graphs. All results must be logically arranged to correspond with each research objective or research question listed in the report. This portion of the report is not simply an undifferentiated dump of the findings. When reporting results, no writer should claim the results are "obvious," or "self-evident." Rather, report writers both present and interpret their results. Their knowledge of the industry—gleaned through literature review and experience, helps analysts interpret results. The researcher must decide how to group the findings into sections that facilitate understanding. Best practices suggest that tables, figures, and graphs be used when results are presented. Graphs and tables should provide a simple summation of the data in a clear, concise, and nontechnical manner. Text is used to explain the findings in graphs and tables.

When writing the report, the information must be explained in the body of the report in a straightforward fashion without technical output and language. Technical information most readers will have trouble understanding is best suited for the appendix section of the report. Below are several strategies for presenting analyses using graphs and tables. There is probably no one best way to present a particular analysis. Instead there often are several effective ways to portray a particular finding or set of findings. We discuss some specific methods to illustrate frequencies, crosstabs, *t*-tests, ANOVAs, correlations, and regressions. With some patience, you can master the simpler presentation techniques in this chapter. If you become comfortable working with the chart editor in SPSS, you will find there are many more options we have not covered. Once you have mastered the basic techniques, you can teach yourself more by experimenting with the chart editor in SPSS. In addition, you can convert your SPSS data into an Excel spreadsheet and use the graphing functions from Excel to present your findings.

Reporting Frequencies Frequencies can be reported in tables, bar charts, or pie charts. For example, Exhibit 13.5 contains a table illustrating the results for the research question "How

Exhibit 13.5 Findings Illustrating Simple Readable Results of Frequencies



Frequency of Eating at Santa Fe Grill

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Infrequently	49	19	19	19
Somewhat Infrequently	62	25	25	44
Occasionally	43	17	17	61
Somewhat Frequently	59	23	23	84
Very Frequently	40	16	16	100.0
Total	253	100.0	100.0	

frequently do you eat at the Santa Fe Grill?” This table illustrates the data output in a simple and concise manner, enabling the reader to easily view how often respondents eat at the Santa Fe Grill. Notice that all digits past the decimal point have been removed. This is common practice in reporting percentages in marketing research. The extra digits create clutter without providing very much information. Moreover, because most research involves sampling error, carrying percentages out past the decimal point is misleading. Researchers usually cannot estimate the results with the degree of precision the extra decimal points imply.

Using Bar Charts to Display Frequencies Exhibit 13.6 shows the simplest type of bar chart that can be made in SPSS. If you are using SPSS version 20 or higher you will have to choose “LEGACY DIALOGUES” from the “GRAPH” menu before executing each command in this chapter.

To make a bar chart, the SPSS click-through sequence is GRAPH → Legacy Dialogues → BAR . Leave the default on “Simple” and under “Data in chart are,” you also use the default of “Summaries for groups of cases.” Next click the Define tab to get the screen shown in Exhibit 13.7. On this screen you will usually want to change the default choice from “N of cases” to “% of cases.” On the left side of your screen highlight the name of the variable you want in your bar graph (in this case, the variable is “Major”) and move it across to the window that says “Category Axis,” and click OK. SPSS will then generate your bar graph.

To make changes to the graph, you double-click the chart in the output, which will take you to a chart editor. There you will find several options for the chart. Double-clicking on

Exhibit 13.6 A Simple Bar Chart

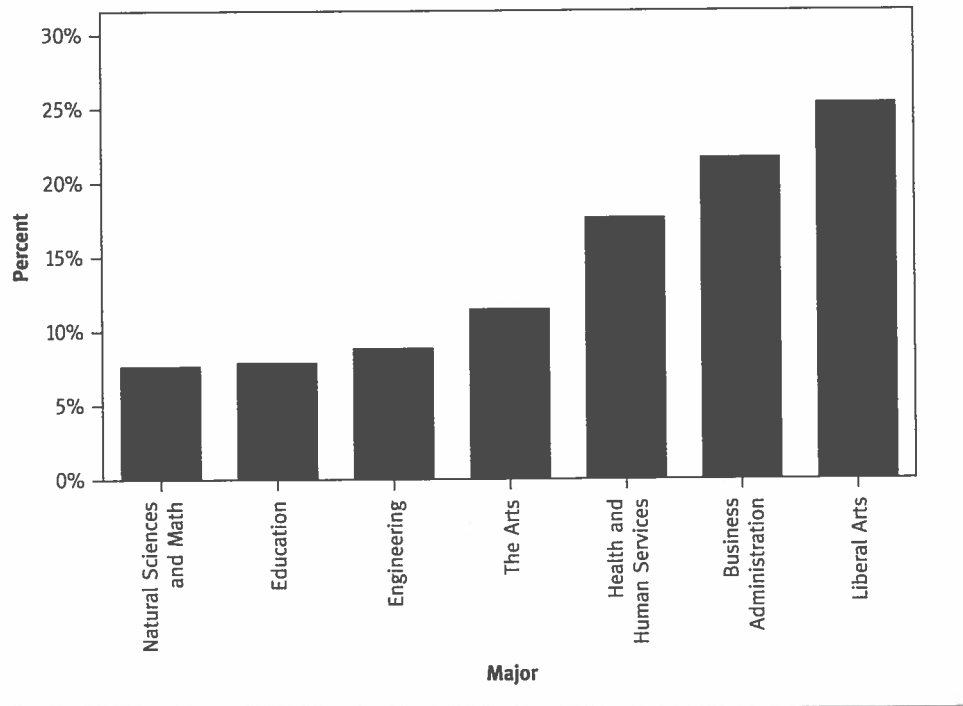
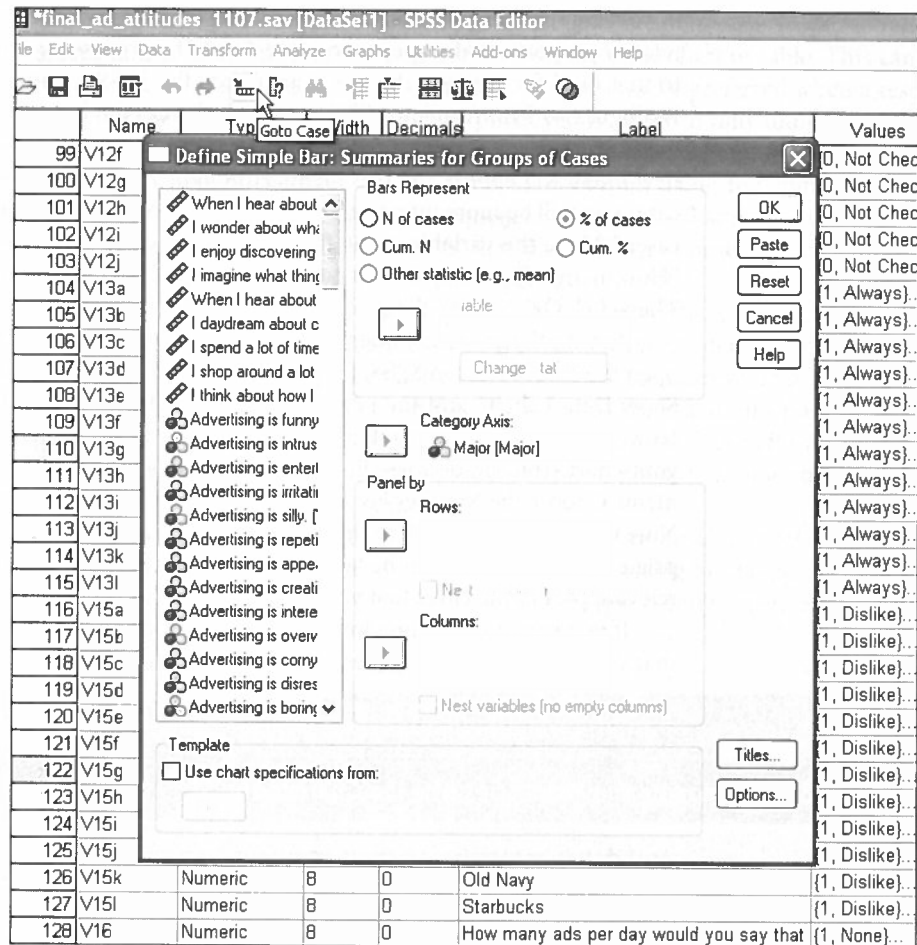


Exhibit 13.7 Making a Simple Bar Graph in SPSS



any of the elements in your chart brings up the relevant menu for customizing that particular element. For example, double-clicking on the bars in the chart will bring up a Properties menu with several tabs. To produce the graph shown in Exhibit 13.6, we chose the Categories tab on the Properties menu. On the Categories menu, we selected the “sort by” option and then “statistic/ascending.” This option arranges the graph by lowest percent to highest percent, which makes the graph easier for readers to understand.

By experimenting with various tabs on the Properties menu, students will find they can change the color, font, and font size on the graph. It is often desirable to enlarge the font if the graph will be exported to either Word or PowerPoint. The orientation of the bar labels can be changed as well. If you click on the bar labels while in the chart editor, the Properties menu will appear, and one of the tabs will be “Labels and Ticks.” Using this menu, the orientation of labels can be chosen: vertical, horizontal, or staggered. You should experiment with options until everything on your graph is clear and readable. Then, you can right-click

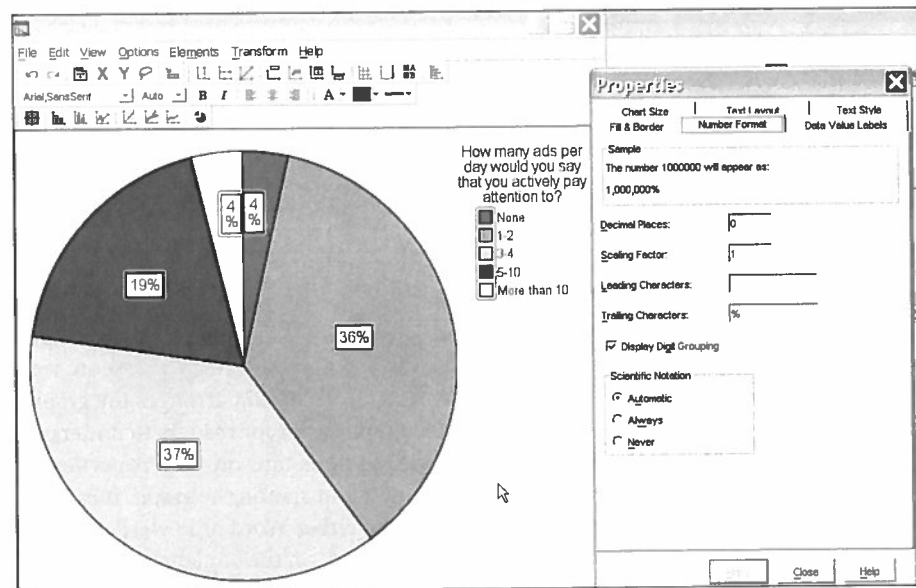
on your finished chart, choose the “copy chart” option, and cut and paste the result to a Word or PowerPoint document. The finished result is shown in Exhibit 13.6.

Portraying Frequencies Using Pie Charts Pie charts are particularly good at portraying the relative proportion of response to a question. The process for creating a pie chart is similar to that used for creating the bar chart. From the SPSS menu, choose GRAPH → Legacy Dialogues → PIE. A menu will appear with three radio buttons. The default choice “Summaries for groups of cases” is the correct option for a simple pie chart. Click “Define” and a new menu will appear. On this menu, although “N of cases” is the default option, in most cases you will be more interested in reporting percentages, so click the button next to “% of cases.” Move the variable name from the variable list (in this case V16, which is labeled “How many ads per day do you pay attention to?”) into the blank next to “Define Slices by.” Then click OK. SPSS will now create your chart in an output file.

As with the bar chart, when you double-click on the pie chart in the output file, you will open the chart editor in SPSS. From the toolbar in the editor, you can choose “Elements → Show Data Labels” and the percentages will be displayed on the pie chart for each slice. However, remove any extra digits after the decimal place from the percentages displayed in your chart. You can double-click on the percentages box, which will give you a Properties menu. Choose the Number Format tab and next to decimal places, enter 0 (see Exhibit 13.8). Note that if you don’t click in the right place, the Properties menu may not show the appropriate tab. If you don’t see the tab you want on the Properties menu, try double-clicking the relevant part of the chart that you want to change again.

If you spend some time investigating the Options and Properties menus, you will see that you can make fonts bigger, change the font style, and alter the color and appearance

Exhibit 13.8 Changing the Properties of a Pie Chart in the SPSS Chart Editor



of the slices in the pie. When you are done, you can right-click on the chart and copy and paste it into Word or PowerPoint.

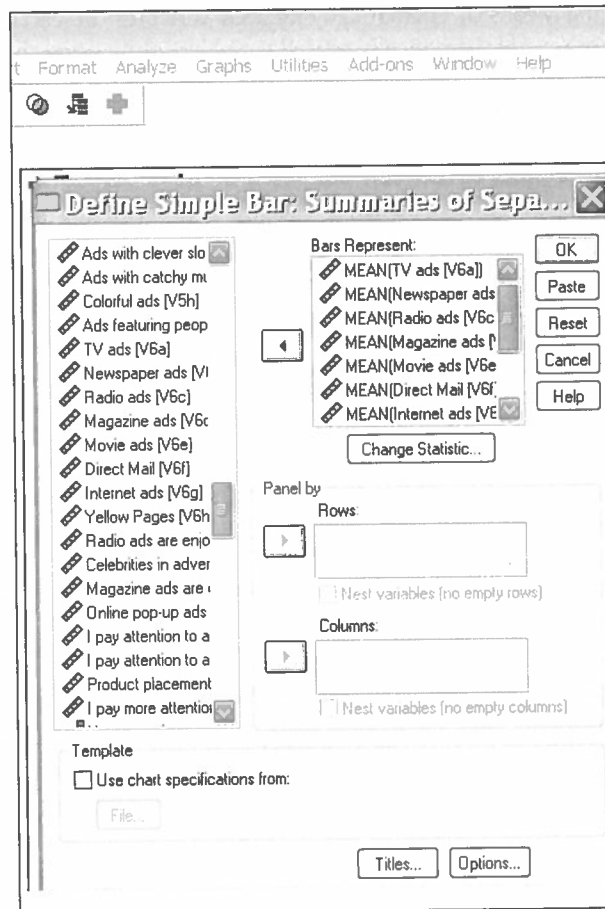
Reporting Means of Thematically Related Variables Researchers may want to report the means of several thematically related variables in the same chart or table. This can be accomplished with either a bar chart or a table. A table may be preferred when a researcher feels that the entire question needs to be portrayed in order to fully understand the findings. Exhibit 13.9 shows a table that was constructed in PowerPoint using the table function. The results of the table are based on SPSS output, using the command sequence Analyze → Descriptive Statistics → Frequencies. A menu will appear, and then you click the Statistics button near the bottom of that menu. Then choose “Mean” and “Standard Deviation.” Click OK, and the results will be generated by SPSS.

Note that the items in the table have been ordered from the highest to the lowest average. Sorting responses in this manner often facilitates reader understanding. There are two other important elements of the table to note: (1) the maximum value of 7 is clearly indicated so that readers can easily compare the mean to the maximum possible score, and (2) the mean and standard deviations are shown with only one digit past the decimal. While percentages should have no decimals past the decimal point, means should generally display one digit past the decimal point.

It is also possible to portray thematically related means on a bar chart in SPSS. In order to do so, you begin as you did when portraying one variable by choosing Graphs → Bar from the toolbar and leaving the default bar chart type “Simple” selected. However, you

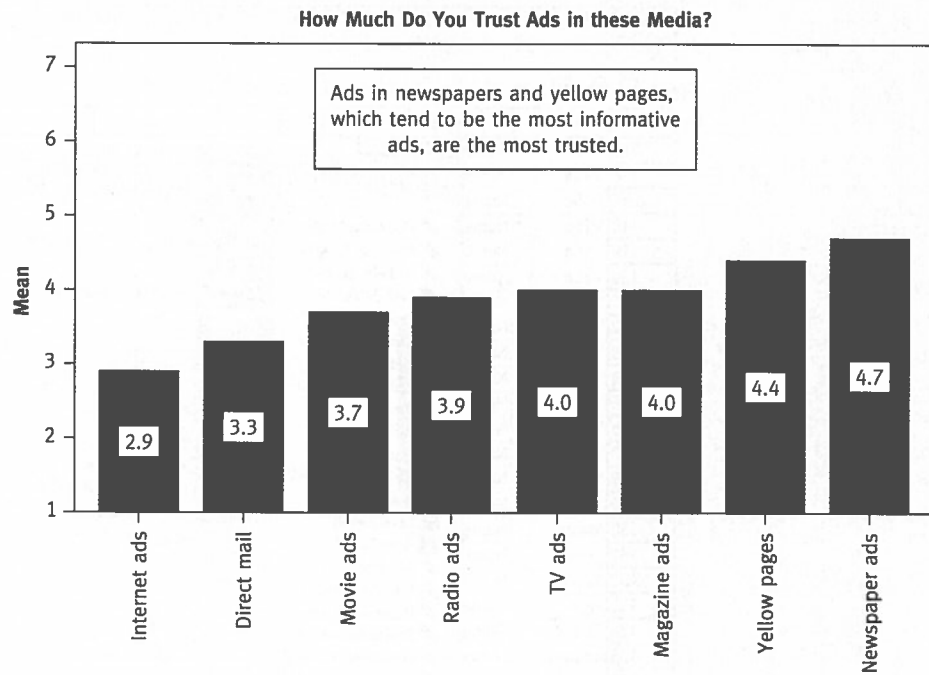
Exhibit 13.9 A Table Summarizing Means of Thematically Related Items

College Students' Attitudes towards Advertising			
Item	Number of Responses	Average 7 = Strongly Agree	Standard Deviation
Ads can be a good way to learn about products.	312	5.2	1.5
The purpose of marketing is to attract customers by learning what they want.	308	5.2	1.5
Advertising is an interesting business.	308	5.2	1.5
Advertising sometimes encourages me to seek out more information about products I am interested in.	312	5.0	1.5
I think it would be fun to work for an advertising agency.	306	4.5	1.9
Overall, I am satisfied with advertising.	308	4.3	1.3
Advertising is usually designed to sell things that people don't really need.	310	4.3	1.8
Advertising appeals to the selfishness in human beings.	303	3.6	1.8
If there was less advertising, the world would be a better place.	304	3.4	1.7
I try to avoid advertising whenever possible.	304	3.3	1.7
Advertising is bad for society.	310	2.6	1.5

Exhibit 13.10 Using the Bar Chart Function in SPSS to Summarize Thematically Related Means


will change the default at the bottom of the menu from “Summaries of groups of cases” to “Summaries of separate variables.” Then click “Define.” From there, move the variables you want in the graph from the variable list on the left into the window labeled “Bars Represent” (see Exhibit 13.10). The default is “Mean” so you will not have to change any options. Once you click OK the bar graph will be created. When you double-click on the bar chart in the output, this will take you to the chart editor. As we explained previously in the chapter, you can double-click elements within the chart and change the properties and the appearance of the bar chart. Exhibit 13.11 shows a finished image that has been cut and pasted to a PowerPoint slide. An interpretation has been added to the slide to facilitate reader comprehension.

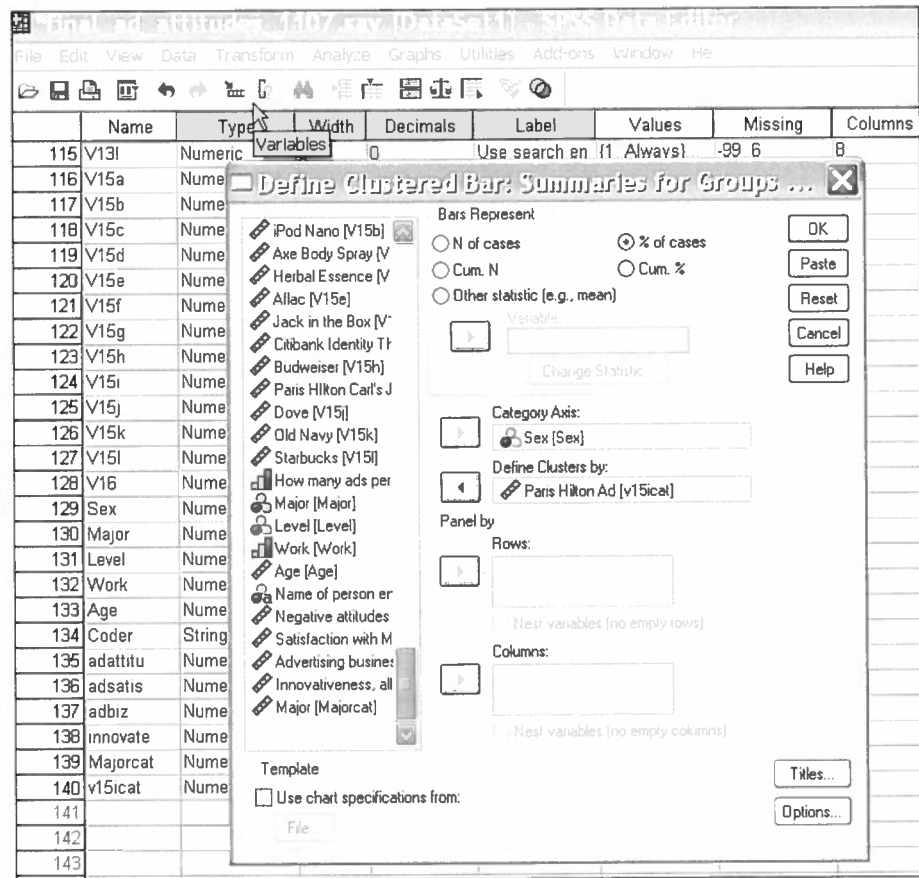
Reporting Crosstabs (Bar Charts) The bar chart function in SPSS can be used to display Crosstabs. Once again, you can start with Graphs → Bar → Summaries for groups of cases. From there, choose “Cluster” rather than the default option “Simple” and click “Define.” Under “Bars Represent,” choose “% of cases.” Your independent or predictor variable should

Exhibit 13.11 A Bar Chart Displaying Multiple Thematically Related Means


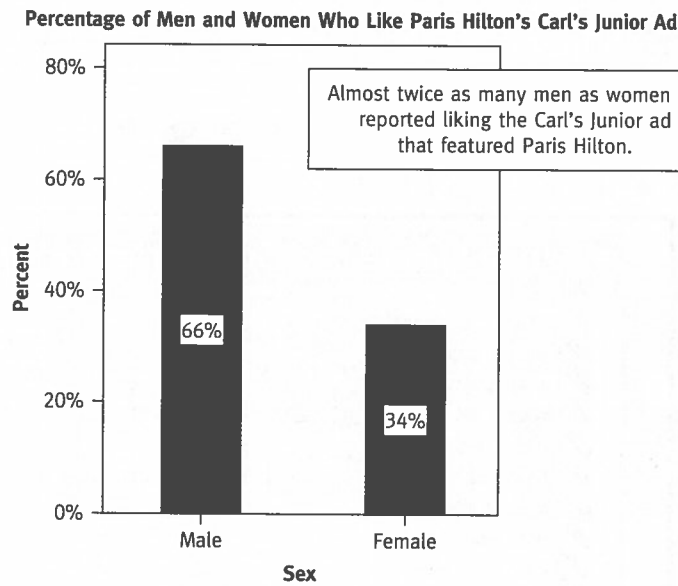
be entered in the “Category Axis” blank. In this case, gender is the independent variable. The variable you are explaining, in this case, liking of the Carl’s Jr. Paris Hilton ad, is entered into the “Define Clusters” blank (see Exhibit 13.12). Then click OK, and the Crosstab bar chart will be created. As with the other charts, you can double-click on the graph to bring up the chart editor.

Because this particular Crosstab crosses only two categories by two categories, we excluded the bars representing “don’t like” from the graph. This is because in a 2×2 , once you know the values for one category, the other category is completely defined (the two categories must add to 100 percent). Removing a category is straightforward. You can double-click on any of the bars in the graph. This will bring up the Properties menu. One of the tabs will be “Categories.” You will see the categories displayed on the menu. If you click on the category you want to exclude (in this case, “Don’t Like”), and then click the red X button next to the box labeled “Order,” the label will be moved to the box below under “Excluded.” Click “Apply” and your Crosstab will now display only one category of the outcome variable, in this case the percentage of respondents within each sex who liked the Carl’s Jr. Paris Hilton ad. The resulting graph is displayed in Exhibit 13.13.

Reporting *t*-Tests and ANOVAs (Bar Charts) Exhibit 13.14 shows a table created in PowerPoint with information from SPSS output that pictures the results of five different *t*-tests that are thematically related. Each *t*-test compares outcome measures for two groups: men and women. The average for each gender for each variable appears in the cells. Again, significant *p*-values are indicated.

Exhibit 13.12 Using the SPSS Bar Chart Function to Portray Crosstabs


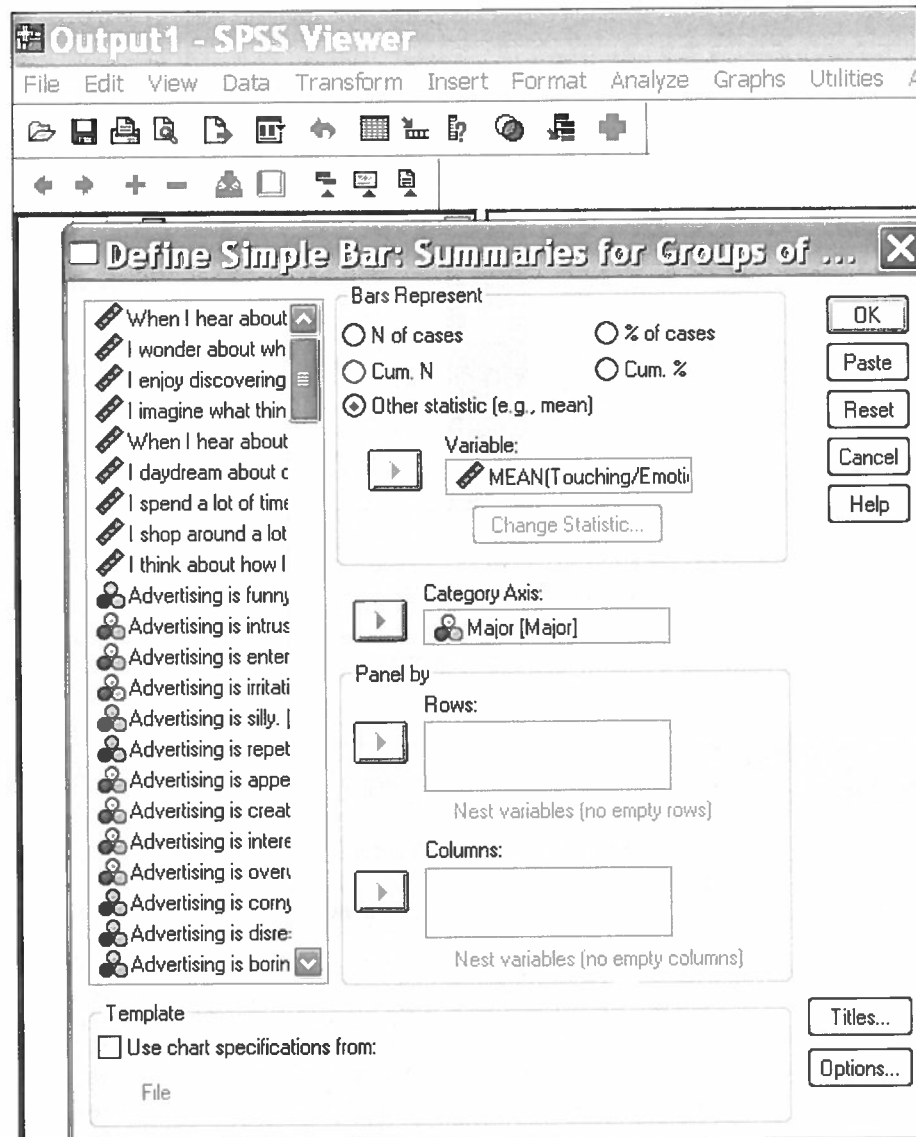
Both t -tests and ANOVAs can be displayed on bar charts created in SPSS. Our example will focus on using the bar charts for an ANOVA, but the command sequence within SPSS is the same. Start with **Graphs** → **Bar** → **Simple**. Leave the box chosen next to “Summaries are groups of cases,” and click “Define.” On the next screen (pictured in Exhibit 13.15), under “Bars Represent,” choose “other” and enter the outcome variable (in this case, “Liking for Touching/Emotional” ads) into the blank under “Variable.” For “Category Axis,” enter the independent variable (in this case “Major”). Then click OK and the graph will be produced. Using “Options” we added a title and a footnote to the graph. Click on the y -axis, which shows the scale that we used in the survey, and you get the Properties menu along with a tab labeled “Scale.” In that menu, we changed the minimum to 1 and the maximum to 7 (the endpoints in the actual scale). SPSS will often change the scale points represented to maximize the space in the chart, but the resulting default chart may distort your findings. In many cases, you will want to change the axis to show the actual endpoints of your scale. A footnote shows an ANOVA analysis performed to examine the significance of categorical differences. The final graph is displayed in Exhibit 13.16.

Exhibit 13.13 Bar Chart Portraying a Crosstab**Exhibit 13.14** A Table Showing *t*-Tests**What Kind of Ads are Effective?**

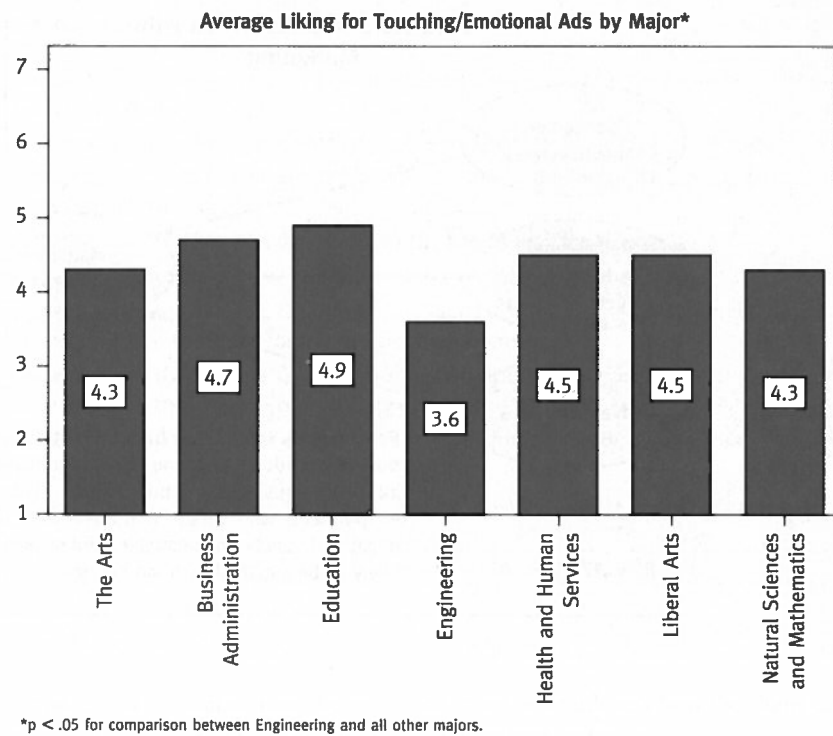
Ad Element	Mean (max=7)
Informational	Male 4.3*
	Female 4.8
Humorous	Male 5.8
	Female 6.0
Touching/ Emotional	Male 4.0*
	Female 4.8
Sex appeal	Male 5.5*
	Female 4.7
Ads with Attractive Models	Male 5.4*
	Female 4.5
Colorful Ads	Male 4.3*
	Female 5.0

Women are more likely than men to say that informational, emotional, and colorful ads are effective. Men are more likely to say that sex appeals and attractive models are effective in advertising. Men and women rate the effectiveness of humor similarly.

* $p < .05$

Exhibit 13.15 Using SPSS to Create Bar Charts to Display ANOVA Results


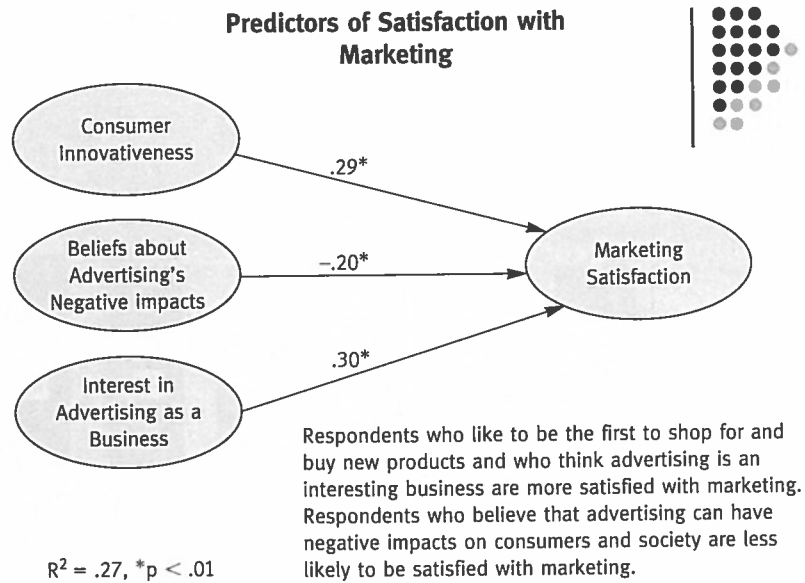
Reporting Correlation and Regression Correlations may be included in a report to illustrate relationships between several variables that are later used in a regression or to show the relationship of several variables to an outcome variable of interest. Exhibit 13.17 is a table showing the correlation of several variables with overall satisfaction for a retailer named Primal Elements. To facilitate comparison of the sizes of the correlations, they are arranged from strongest to mildest. Note that the negative correlation is sorted by its strength because the negative value indicates the direction of the relationship only. The

Exhibit 13.16 Bar Chart Portraying ANOVA Results**Exhibit 13.17** Correlations of Item Ratings with Overall Satisfaction with Primal Elements

Item	Correlation
Store atmosphere	.59*
How intimidating the store is	-.30*
Expense of products	-.25*
Interior appearance of store	.25*
Quantity of information workers provide about products	.21*
Exterior appearance of store	.16

*p < .05, N = 94. Correlations vary in strength from -1 to +1 with 0 meaning "no relationship."

significance levels are once again indicated with a star. The sample size is included on the graph in the footnote if the sample size used in the correlation analysis is different from the overall sample size reported in the methodology section of the report. The interpretation of the table is not included in the exhibit, but accompanying text would explain the strong role

Exhibit 13.18 Displaying Regression Findings


of perceptions of store atmosphere in satisfaction and may focus as well on the milder effects of other variables.

Recall that regression is a multivariate technique that estimates the impact of multiple explanatory or independent variables on one dependent variable. One of the simplest ways to present regression findings is to create a diagram in Word or in PowerPoint that pictures the predictor and the outcome variables with arrows showing the relationships between the variables (see Exhibit 13.18). These diagrams were referred to as conceptual models in Chapter 3. The title of the analysis clearly describes the picture (“Predictors of Satisfaction with Marketing”). The standardized betas are portrayed above the appropriate arrow because the beta shows the strength of the relationship between the independent and dependent variables. As in the other pictured analyses, a star may be used to indicate statistical significance. The R^2 (.27) appears in the diagram; the three variables together explain 27 percent of the variance in attitudes toward marketing. The text summarizes the information provided by the regression analysis in the picture.

Conclusions and Recommendations

Conclusions and recommendations are derived specifically from the findings. As illustrated in Exhibit 13.19, conclusions are descriptive statements generalizing the results, not necessarily the numbers generated by statistical analysis. Each conclusion directly references research objectives.

Recommendations are generated by critical thinking. The task is one where the researcher must critically evaluate each conclusion and develop specific areas of applications

Exhibit 13.19 Illustration of Conclusions in a Marketing Research Presentation



Conclusions

- Four primary factors are related to satisfaction with and eating at the Santa Fe Grill—food quality, service, value, and atmosphere.
- Food quality is the most important factor influencing satisfaction with and eating at the Santa Fe Grill.
- Service at the Santa Fe Grill is the second-most important factor influencing satisfaction with and eating at the restaurant.
- Perceptions of the Santa Fe Grill food quality and service are favorable.
- Perceptions of value and atmosphere are relatively less favorable.
- Perceptions of the Santa Fe Grill on all four factors—food, service, value, and atmosphere—are significantly less favorable for the less frequent patrons.
- Perceptions of the Santa Fe Grill on two factors—food and service—are significantly less favorable than they are for Jose's Southwestern Café.
- More frequent patrons of the Santa Fe Grill have lifestyles that characterize them as Innovators and Influencers.
- Employees of Santa Fe Grill do not evaluate their team coworkers very favorably.

for strategic or tactical actions. Recommendations must address how the client can solve the problem at hand through the creation of a competitive advantage.

Exhibit 13.20 outlines the recommendations that correspond to the conclusions displayed in Exhibit 13.19. You will notice each recommendation, unlike the conclusion, is in the form of a clear action statement.

Exhibit 13.20 Illustration of Recommendations in a Marketing Research Presentation



Recommendations

- Advertising messages should emphasize food quality and service, since these are the most important factors influencing satisfaction.
- If advertisements include people, they should be characterized as innovative in their lifestyles.
- Focus group research needs to be conducted to learn why perceptions of value and atmosphere are less favorable than perceptions of food quality and service.
- The focus group research also needs to examine why perceptions of less frequent patrons of the Santa Fe Grill are significantly less favorable than those of more frequent patrons.
- The current study collected data from customers of the Santa Fe Grill and Jose's Southwestern Café. In the future, data should be collected from noncustomers.
- Focus group research needs to be conducted to learn why employees are not very favorable about their coworkers.

Limitations Weaknesses in research methodology that might affect confidence in research conclusions.

Limitations

Researchers always strive to develop and implement a flawless study for the client. But all research has limitations. Researchers must note the **limitations** of a project, and speculate intelligently about if and how the limitations may have affected their conclusions. Common limitations associated with marketing research include sampling bias, financial constraints, time pressures, and measurement error.

Every study has limitations, and the researcher has to make the client aware of them. Researchers should not be embarrassed by limitations but rather admit openly that they exist. However, limitations should not be stated in a way that undermines the credibility of the entire project. Researcher reports address limitations, but do so in a way that develops reasonable confidence in the conclusions made in the report. Treatment of limitations in the research report usually involves a discussion of results and accuracy. For example, researchers should tell clients about the generalizability of the results beyond the sample used in the study. Any weaknesses in specific scales should be addressed, along with other potential sources of nonsampling error. If limitations are not stated and are later discovered by the client, mistrust and skepticism toward the entire report may result. When properly reported, limitations rarely diminish the credibility of the report but instead improve client perceptions of the quality of the project.

Appendix A section following the main body of the report; used to house complex, detailed, or technical information.

Appendixes

An **appendix**, many times referred to as a “technical appendix,” contains complex, detailed, or technical information not necessary for the formal report. Common items contained in appendixes include the questionnaire or data collection instrument used for the research project, interviewer forms, statistical calculations, and detailed sampling maps. Researchers know the appendix is rarely read in the same context as the report itself. In fact, most appendixes are treated as points of reference in the report. That is, information in the appendix is cited in the report to guide the reader to further technical or statistical detail.

Common Problems in Preparing the Marketing Research Report

Industry best practices suggest five problem areas that may arise in writing a marketing research report:

1. *Lack of data interpretation.* In some instances, researchers get so involved in constructing results tables that they fail to provide proper interpretation of the data in the tables. The researcher always provides unbiased interpretation of any findings.
2. *Unnecessary use of complex statistics.* To impress clients, many researchers unnecessarily use sophisticated multivariate statistical techniques. In many research reports, the most sophisticated statistical technique required will be a Chi-square test. Avoid using statistical methods unless they are essential to derive meaning from the data.
3. *Emphasis on packaging instead of quality.* Many researchers go out of their way to make reports look classy or flamboyant using sophisticated computer-generated graphics. While professional graphic representation of the results is essential in the report, never lose sight of the primary purpose—to provide valid and credible information to the client.