MARKETING RESEARCH IN ACTION

Who Are the Early Adopters of Technology?

The latest digital recorder/players do a lot more than just record material. The latest devices include hard drives and programming guides with lots of functionality. Stand-alone digital devices use the same access and storage technology as PCs, but in addition they provide a home theater platform. The devices have menus that let you easily jump to a specific point within a recording and multiple shows over an extended period of time can be recorded.

The recording and storage market is large and rapidly getting much larger. No longer limited to home entertainment playback boxes, it is being combined with increasing numbers of consumer electronics products: computers, wireless phones and other portable devices, appliances, and industrial systems.

DVDs hit the market in the late 1990s and enjoyed very fast growth. Indeed, the DVD market experienced the most rapid rise of any consumer electronics technology ever introduced. The total annual market for all types of digital recorder/player systems (players, recorders, set-tops, PCs) is expected to exceed 700 million units in 2012. But shipments of Blu-ray devices are starting to account for a significant portion of the disc player and recorder market and are expected to outsell DVD players by 2015, when sales of Blu-ray player unit shipments are expected to reach 105 million.

Digital player/recorders have caught the imagination and interest of consumers. Set-top boxes boomed in sales due not only to their functionality, but also to their rapidly falling prices. The average selling price fell from about $500 in 1998 to less than $100 in major retail outlets in 2012, with some units selling for as low as $35.

Two of the biggest challenges of electronics marketers are (1) the successful introduction of new technology-based product innovations into consumer markets, and (2) stimulating the diffusion of those innovations to profitable penetration levels. To meet these challenges, researchers must gain clearer insights into the key factors consumers use in deciding whether to adopt technology innovations in consumer electronics.

Researchers recently completed a study to investigate opinions of potential purchasers of digital recorder/player devices. The study compares the innovator and early adopter segments with regard to product usage, digital device purchase likelihood, demographics, and related issues. The primary questions addressed were: "Are there attitudinal and behavioral differences between consumers who are innovators versus those who are early adopters?" and "Can these differences be systematically associated with purchase likelihood of digital recorder/players?"

Using an Internet panel, data was collected from a sample of 200 individuals. The sample frame was consumers with annual household incomes $20,000 or more and ages 18 to 35 years. Data were collected over a two-week period. Participants had to be living in North America because the market study was limited to this geographic area. The questionnaire included questions about innovativeness, lifestyle, product, and brand image. Some of the questions employed interval level measures while others were nominal and ordinal. There is a database for the questions which is available in SPSS format at **www.mhhe.com/hairessentials3e**. The database is labeled Digital Recorder Survey MRIA 3e.sav. A copy of the questionnaire is provided in Exhibit 13.21.

Exhibit 13.21 Questionnaire for Electronics Products Opinion Survey

This is a project being conducted by a marketing research class at the University of Oklahoma. The purpose of this project is to better understand the attitudes and opinions of consumers toward electronics products. The questionnaire will take only a few minutes to complete, and all responses will remain strictly confidential. Thank you for your help on this project.

I. Attitudes

The following questions relate to your attitudes about shopping for electronics products. On a scale of 1 to 7, with 7 being Strongly Agree and 1 being Strongly Disagree, please circle the number that best expresses your degree of agreement with each of the following statements.

	Strongly Disagree						Strongly Agree
1. The Internet is a good place to get lower prices.	1	2	3	4	5	6	7
2. I don't shop for specials.	1	2	3	4	5	6	7
3. People come to me for advice.	1	2	3	4	5	6	7
4. I often try new brands before my friends and neighbors.	1	2	3	4	5	6	7
5. I would like to take a trip around the world.	1	2	3	4	5	6	7
6. My friends and neighbors come to me for advice and consultation.	1	2	3	4	5	6	7
7. Coupons are a good way to save money.	1	2	3	4	5	6	7
8. I seldom look for the lowest price when I shop.	1	2	3	4	5	6	7
9. I like to try new and different things.	1	2	3	4	5	6	7

10. To what extent do you believe you need a DVD player?
Please indicate on the scale provided below:

Product I Definitely Do Not Need						Product I Definitely Need
1	2	3	4	5	6	7

11. How likely are you to purchase a digital recorder/player in the next year? Please indicate whether you are moderately likely or highly likely to purchase a digital recorder/player. (*Note:* Respondents who were not likely to purchase a digital recorder/player were screened out of the survey.)

6 = Moderately Likely
7 = Highly Likely

II. Classification Information

Please tell us a little about yourself. We use the data for classification purposes only.

12. What is the highest level of education you have attained? (Check only ONE.)
a. __ High school graduate
b. __ College graduate

Exhibit 13.21 *continued*

13. Electronics Products Ownership. Please indicate the level of electronics products ownership that best describes you.
a. __ Own few electronics products.
b. __ Own a moderate number of electronics products.
c. __ Own many electronics products.

14. Please check the category that best indicates your total annual household income before taxes. (Check only ONE.)
a. __ $20,000–$35,000
b. __ $35,001–$50,000
c. __ $50,001–$75,000
d. __ $75,001–$100,000
e. __ More than $100,000

THANK YOU FOR SHARING YOUR OPINIONS WITH OUR MARKETING RESEARCH CLASS.

To begin the analysis, researchers classified respondents as innovators or early adopters. The Innovativeness scale consisted of five variables: x3, x4, x5, x6, and x9. Cluster analysis was utilized to identify respondents who rated themselves higher (more innovative) on these five scales. The analysis produced 137 Innovators and 63 Early Adopters. This categorical variable (x14) was then used to learn more about the respondents. The initial variables we examine here are x10–Digital recorder/player Product Perceptions, x11–Purchase Likelihood, and x16–Price Consciousness. The results are shown in Exhibit 13.22.

All of the comparisons are significantly different. Looking first at variable x10, the mean value for innovators is larger than for early adopters (5.5 vs. 3.2). This indicates that innovators believe they need a digital recorder/player much more than do early adopters. A similar finding is true for variable x11–Purchase Likelihood (coded 1 = highly likely and 0 = moderately likely). The higher mean value for innovators (.8 vs .1) indicates they are much more likely to purchase a digital recorder/player. Finally, looking at x16–Price

Exhibit 13.22 Comparison of Innovators and Adopters

	Group	N	Mean	Sig.
x10—Digital recorder/Player Perceptions	**0 = Early Adopters**	63	3.2	
	1 = Innovators	137	5.5	
	Total	200	4.7	.00
x11—Purchase Likelihood	**0 = Early Adopters**	63	.1	
	1 = Innovators	137	.8	
	Total	200	.6	.00
x16—Price Conscious	**0 = Early Adopters**	63	.6	
	1 = Innovators	137	.4	
	Total	200	.5	.01

Conscious we see that innovators are less price conscious than are early adopters (.4 vs .6; coded 1 = more price conscious and 0 = less price conscious).

This study suggests that digital recorder/players have left the innovation stage of the diffusion process and are making inroads into the early adopter phase, and beyond. But digital recorder/player manufacturers and retail marketers alike must continue to develop strategies that attract more potential early adopters as well as create awareness and desire among the early majority.

Hands-On Exercise

1. What other issues can be examined with this survey?
2. What problems do you see with the questionnaire?
3. What are the important topics to include in a presentation of the findings?

Summary

Understand the objectives of a research report.

The key objective of a marketing research report is to provide the client with a clear, concise interpretation of the research project. The research report is a culmination of the entire study and therefore must communicate the systematic manner in which the study was designed and implemented. Secondary objectives of the report are to provide accurate, credible, easy-to-understand information to the client. The end result of the report is its ability to act as a reference document to guide future research and serve as an information source.

Describe the format of a marketing research report.

The research report generally includes the following: a title page, a table of contents, and an executive summary, which includes a statement of the research objectives, a detailed statement of the research method and procedures, a brief statement of findings, and conclusions and recommendations. Following the executive summary are the introduction of the report, a description of the methodology employed, and a discussion of data analysis techniques and findings. The final elements are conclusions and recommendations, and a description of limitations. An appendix may include technical explanations or documentation.

Discuss several techniques for graphically displaying research results.

A vast array of graphic techniques is available to display research results. A variety of bar charts can be used to display analyses from simple frequencies to Crosstabs, *t*-tests and ANOVA. As well, pie charts can be used to display the results of frequencies. Tables are especially helpful for portraying related results, including means, *t*-tests, and correlations. Conceptual models showing relationships between variables are often used to portray regression results.

Clarify problems encountered in preparing reports.

Problem areas that may arise in the preparation of the research report are (1) lack of data interpretation, (2) unnecessary use of multivariate statistics, (3) emphasis on packaging rather than quality, (4) lack of relevance, and (5) placing too much emphasis on a few statistical outcomes.

Understand the importance of presentations in marketing research.

Presentations are important because research results must be effectively communicated to those seeking to use the information in decision making. The report or presentation may be the only part of the research project that will be seen by those commissioning the report. The content of the research and the presentation form of the research are closely intertwined.