Chapter 6:
E-Marketing Research

Learning Objectives

Data Drives Strategy

The advent of the Internet has brought about a new phenomenon – information overload. E-marketers are saddles with the burden of sorting through the enormous amounts of data available and to analyze the useful information.

Marketing Knowledge Management

Knowledge management is the process of managing the creation, use and dissemination of knowledge. Marketing knowledge is the digitized "group mind" or "collective memory" of the marketing personnel and sometimes of consultants, partner, and former employees as well.

The *Electronic Marketing Information System*
A marketing information system (MIS) is the process by which marketers manage knowledge. It assesses information needs, gathering information, analyzing it, and disseminating it to marketing decision makers. Many firms store electronic marketing data in data warehouses or a product database.

Source 1: Internal Records
Internal records comprise one important source of marketing knowledge and can include data from accounting, finance, and production.

Sales Data – Sales information systems (sales force automation software) allow employees to input sales calls to prospects and current customers. Competitive and industry information can also be recorded as well as customer complaints or compliments.

Customer Characteristics and Behavior – Customer activity is perhaps the most important internal marketing data one can collect. E-marketers can record anything from the stickiness of particular web pages to geographic distribution. Analyzing customer patterns help greatly with marketing and advertising campaigns.

Source 2: Secondary Data
Secondary data can be collected more quickly and less expensively than primary data. The Internet offers up-to-date information from over 200 countries and is available 24/7. However, secondary data was gathered for a different purpose, so it may not meet the needs of the e-marketers. One of the Internet's benefits is the accessibility of environmental factors and trends.

Publicly Generated Data – Most US and foreign agencies provide online information in their respective areas. US governmental agencies,

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universities, libraries and other not-for-profit organizations make research available online.

Privately Generated Data – Online research firms make their results and data available, but information can also be collected from a company's Web site. Several different services that generate research data will be discussed in the outline and chapter.

Competitive Intelligence Example – CI involves analyzing the industries in which a firm operates as input to the firm's strategic positioning and to understand competitor vulnerabilities. CI can help firm's analyze competition as well as assist in strategic planning

Information Quality – Secondary and primary data are subject to many limitations. E-marketers should be wary of data, especially if it is secondary data. E-marketers should: discover the Web site's author, try to determine if the site author is an authority on the topic, check to see when the site was last updated, determine how comprehensive the site is, validate the research by finding similar information, and check the site content for accuracy.

Source 3: Primary Data

Primary data are information gathered for the first time to solve a particular problem. This is usually more expensive and time-consuming, but is more current and relevant to the marketer's specific problem.

Primary Research Steps – Consists of five steps: (1) research problem, (2) research plan, (3) data collection, (4) data analysis, and (5) distribute findings/add to database.

Internet Based Research Approaches – Conventional research methods have faced decreased responses over the past few years. A majority of research companies us online surveys, most notably: The creative test, customer satisfaction, and product development surveys. In addition, data are collected online using experiments, focus groups, observations, in-depth interviews, and survey research.

Ethics of Online Research – Online research companies have developed a "gift culture" by offering nominal fees for participation. Marketers use unsolicited emails, harvest email addresses from newsgroups, and conduct surveys for the purpose of building a database for later solicitation. Privacy of user data has become a significant issue.

Monitoring the Social Media

Blogs and other online mediums are becoming outlets of information sharing not seen in the history of business. Citizen journalists are using the Internet to issue email alerts, customer complaints and product/service reviews that allow real time conversation and information exchange.

Other Technology-Enabled Approaches

The Internet is an excellent place to observe user behavior because the technology automatically records actions in a format that can be easily, quickly, and automatically manipulated for analysis.

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Client-Side Data Collection
This refers to collecting information about consumer surfing right at the user's PC. This can be done with cookies by tracking user surfing and helps marketers present appropriate promotions. The installation of a PC meter can help marketers track user clickstreams, similar to the Nielsen meter used for television shows.

Server-Side Data Collection
Software on a Web site can record how many users view each page, the location of the site visited prior to the firm's site, how long the user is on each page, and what the users buy. This allows e-marketers to use real-time profiling that compiles and reports on data at a moment's notice. E-marketers may then make instantaneous adjustments to site promotions and Web pages.

Real-Space Approaches

Real-space primary data collection occurs at offline points of purchase. This can be done with smart card and smart card readers, interactive point of sale machines, and bar code scanners. UPC codes, or bar codes, have been used for this purpose since 1974. Marketers also use UPC information in grocery stores to generate coupons based on customer's purchases.

Marketing Databases and Data Warehouses

Upon collection, data are moved to various marketing databases. These databases hold information about product features, prices, inventory levels, customer characteristics, and behaviors. These warehouses are also used for an organization's entire historical data set. Because of the current state of information overload, content management has become increasingly important to the success of a Web site.

Data Analysis and Distribution

Four important types of analysis for marketing decision making include data mining, customer profiling, RFM analysis (recency, frequency, monetary), and report generating. Data mining involves the extraction of hidden predictive information in large databases through statistical analysis. Customer profiling allows for: selecting target groups for promotional appeals, finding and keeping customers with a higher lifetime value to the firm, understanding the important characteristics of heavy product users, directing cross-selling activities to appropriate customers, and reducing direct-mailing costs by targeting high-response customers.

Knowledge Management Metrics

Marketers weigh the cost of gaining additional information against the value of potential opportunities or the risk of possible errors from decisions made with incomplete information. Two metrics currently being used are: ROI (return on investment) and TCO (total cost of ownership)

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Chapter Summary

E-marketers need data to guide decisions about creating and changing marketing mix elements. These data are collected from a myriad of sources, filtered into databases, and turned into marketing knowledge that is then used to develop marketing strategy. Knowledge management is the process of managing the creation, use, and dissemination of knowledge. A marketing information system (MIS) is the process by which marketers manage knowledge, using a system of assessing information needs, gathering information, analyzing it, and disseminating it to decision makers.

Marketers can tap three sources of marketing knowledge: (1) internal records (such as cash flow, sales force data, and customer data), (2) secondary data (publicly and privately generated, from online databases, and for competitive intelligence), and (3) primary data (gathered for the first time to solve a particular problem). Competitive intelligence (CI) involves analyzing the industries in which a firm operates as input to the firm's strategic positioning and to understand competitor vulnerabilities. Marketers must evaluate the quality of data before relying on them to solve research problems.

Primary data is collected on the internet by over 90 percent of all companies. The steps to conduct primary research are (1) define the research problem, (2) develop a research plan, (3) collect data, (4) analyze the data, and (5) distribute results. Internet-based research may include any of the following activities conducted online: experiments, focus groups, observations, and surveys. Surveys may be conducted by e-mail invitation to a Web site. Advantages to online surveys are that they are fast and inexpensive, have broad reach, reduce errors, elicit honest responses, can be restricted to authorized participants, and are easy to tabulate. Disadvantages include poor generalizability of results due to poor sample selection, self-selection bias, inability to confirm the respondent's authenticity, frivolous or dishonest responses, and duplicate submissions.

Online panels are increasingly being used to combat sampling and response problems of online surveys. Although some of these panels are small, others contain millions of participants. Some ethical concerns of online research include unsolicited e-mail, harvesting e-mail addresses from newsgroups, selling under the guise of research, and lack of privacy of user data.

Companies must constantly monitor the social media and other Web sites to identify content about their brands and personnel that are posted by citizen journalists and other stakeholders. New technologies such as e-mail alerts, RSS feeds, and special software make this an easy and automated process.

Marketers use technology to observe user behavior on the user's computer (client side) via cookies and PC meters or the server (server side) via the use of log files and real-time profiling. Real-space data collection takes place at offline points of purchase such as smart card and credit card readers, iPOS machines, and bar code scanners. The data can be used for inventory control and to target promotions.

Data warehouses are repositories for the organization's historical data. Data marts are subsections of the warehouse categorized by subject area. Data from all customer touch points are stored in the warehouse. Four types of analysis are conducted with the data – data mining, customer profiling, RFM (recency, frequency, monetary) analysis, and report generation. Data mining extracts hidden predictive information from the warehouse via statistical analysis. Customer profiling helps marketers understand the characteristics and behavior of specific target groups. RFM allows firms to target offers to customers who might be most responsive. Sophisticated report generation tools can automatically schedule and publish reports.

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Exercise Answers

(Exercise answers prepared by David Lan, University of Nevada, Reno, with assistance from the authors)

Note
Discussion questions may require outside research whereas review questions do not require research beyond the text.

Review Questions

1. **What are the three main sources of data for solving marketing research problems?**

   Note: The answers to this question overlap somewhat with the answers to questions 5, 6, and 7.

   The three sources of marketing knowledge are internal records, primary data, and secondary data. Internal records are best suited for monitoring sales, share, and marketing cost objectives. Primary data is best suited for aiding decision makers with market questions that are unique to the firm and for which marketers need complete control over time frames and research methods as well as privacy of data. Secondary data is best suited for questions about an industry or general market segments.

2. **Contrast primary with secondary data and explain the advantages and disadvantages of each.**

   Primary data are information gathered for the first time to solve a particular problem. Secondary data is collected from publicly and privately generated reports, online databases, and other sources that have already been collected.

   Primary data are usually more expensive and time-consuming to gather than secondary data, but the information is focused on the project at hand. When faced with a need for information not available in company or partner databases, secondary data can be extrapolated quickly and less expensively than primary data. The data, however, can be skewed because typically they were gathered for a different purpose. Also the quality of secondary data is questionable since marketers have no control over data collection procedures. Furthermore secondary data is often out of date. However, the major benefit being low cost and easy of collection -- especially on the Internet, where information from over 200 countries is available 24/7 hours, from home or work, delivered in a matter of seconds. In addition, the Net allows for observational research through chat rooms and bulletin boards as well as for interesting experiments with a diverse and worldwide population.

3. **What is competitive intelligence and what are some sources of online CI data?**

   Competitive intelligence involves analyzing the industries in which a firm operates as input to the firm's strategic positioning and to understand competitor vulnerabilities. Five example sources of competitive intelligence include competitor press releases; announcements of new products, alliances and co-brands; trade show activity; and advertising strategies.

4. **Why and how do e-marketers evaluate the quality of information on a Web site?**

   You can be reasonably sure that the information on a Web site is accurate by following the procedure listed below:

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- Discover the Web site's author.
- Try to determine if the site author is an authority on the Web site topic.
- Check to see when the site was last updated.
- Determine how comprehensive the site is.
- Try to validate the research data by finding similar information at other sources on the Internet or in hard copy at the library.

Check other aspects of the site content for accuracy.

5. What are the strengths and weaknesses of the Internet for primary and secondary data collection?

Primary data collection is usually more expensive and time-consuming to gather than secondary data, but on the Internet this is not usually true. The answer to Question 2 provides insight into Internet applied collection of data. The main benefits stem from ease of collection from online databases. The main weaknesses from the questionability of the data and the anonymous nature of the net.

6. How do marketers turn marketing data into marketing knowledge?

Marketing data encompasses all the data that is collected about user habits, segment behavior, transactions, etc. Marketing knowledge is the digitized "group mind" or "collective memory" of the marketing personnel and sometimes of consultants, partners, and former employees as well.

7. What is real-space data collection? Why is it important?

Real-space primary data collection occurs at offline points of purchase. Offline data collection is important for e-marketing because these data, when combined with online data, paint a complete picture of consumer behavior for individual retail firms.

8. Is data mining possible without a data warehouse? Why or why not?

Data mining involves the extraction of hidden predictive information in large databases through statistical analysis. It is possible to data mine a database that is not a complete data warehouse. However, one of the major reasons to construct an data warehouse is so as to be able to mine the integrated data.

9. Give an example of how data mining uncovers new knowledge.

Fingerhut, the $2 billion catalog retailer, used data mining to discover that customers who move their residence triple their purchasing in the 12 weeks after the move, and that they tend to buy furniture, telephones, and decorations but not jewelry or home electronics. Fingerhut used this information to create a special "Mover's Catalog," selecting appropriate products from among the 15,000 items it sells. It further stopped sending other specialty catalogs to movers during the 12-week window.

10. Identify the steps in a primary marketing research project.

The steps to conduct primary research are (1) define the research problem,(2) develop a research plan, (3) collect data, (4) analyze the data, and (5) distribute results.

11. What are the 12 channels for online reputation monitoring? Why are they important to a company?

The 12 channels for online reputation monitoring are as follows: A businesses own channels (blogs, comment sections, etc), social media and blogs, Google, industry

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news via email or site monitoring, stakeholder conversations that occur at other web sites, social communities within the business industry, social bookmarking sites, multimedia content, forums and message boards, customer reviews at alternate sites, brand profiles at social network sites, and web analytics to help companies monitor site traffic. These channels are important for a company to measure and gauge the accuracy of information being exchanged online.

Discussion Questions

12. What online research method(s) would you use to test a new product concept? Why?

A myriad of online research methods exist. A few of these Internet-based methods could include any of the following activities: experiments, focus groups, observations, in-depth interviews (IDI), and surveys. In addition other online research methods could include Real-time profiling of Web sites, client-side collection of consumer surfing behavior, compilation and analysis of Web site usage logs, tracking user clickstreams in real-time, and statistical analysis based on customer profiling.

All of these can be used to help test new product concepts. These tools represent an evolution in digital methodologies that are best suited for online usage. They should also be correlated with traditional research methods because digital characteristics may not necessarily be applicable to a given target audience. The key being that online research is an additional tool that can be used with existing methods. The analysis of online research may be the key because online research methods typically produce much more data than traditional ones. Thus online research methods are limited like their traditional counterparts primarily by budgetary constraints.

13. What online research method(s) would you use to test the brand image of an existing product? Why?

See the previous question on the numerous online methods that exist to test the success of marketing campaigns, product viability, etc. The digital nature of a well designed online research method creates a broad based adaptability that can be applied and reused on numerous projects. The key once again is making sure that the data is generalizable to your target audience as well as correlates to traditional research methods.

14. Of the ethical issues mentioned in the chapter, which are you most concerned about as a consumer? Why?

With e-mail surveys, respondents are increasingly upset at getting unsolicited e-mail requesting survey participation. Some researchers "harvest" e-mail addresses from newsgroups without permission (e.g., from Google.com). Perhaps this practice is analogous to gathering names from a telephone book, but some people object because consumers are not posting with the idea of being contacted by marketers. Some companies conduct "surveys" for the purpose of building a database for later solicitation. Ethical marketers clearly mark the difference between marketing research and marketing promotion and do not sell under the guise of research. Privacy of user data is a huge issue in this medium, because it is relatively easy and profitable to send electronic data to others via the Internet.

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15. Can you think of a marketing research technique that could not be supported online? Explain your answer.

Focus groups are the most difficult to transfer to the online environment. This is because they depend heavily on non-verbal communication and group dynamics. At the concept stage a focus group on or offline would be the best test venue because you need in depth feedback in an interactive environment before making a large investment. Following the online focus groups, an online questionnaire can be designed to further measure Internet user opinions on the new product concept. If the product is digital, it can be tested online by offering it at the company's Web site.

16. What are the current limitations for undertaking market research on the general population on the Net? How might these be overcome now and in the future?

Current limitations for undertaking market research on the general population on the Net is that the online population does not accurately reflect the composition of the offline population, especially in non-industrialized nations. To take just two examples—online users tend to be more affluent and better educated than the offline population. These discrepancies could be somewhat overcome using stratified samples or by sampling a combination of on and offline populations. In the future the two populations may not be different, thus eliminating the necessity of any statistical corrections.

17. Given that the cost of sending an e-mail questionnaire to 10,000 people is no higher than the cost of sending it to 10 people, why would market researchers bother devising samples if they were planning to undertake some research online?

The main reason to generate a sample is to allow everyone in the population an equal chance of being queried. Opening up a survey to everyone who comes across it flies in the face of sampling theory and thus response generalizability. Another reason to devise samples is so as not to contaminate the results of future surveys by resurveying the same subjects.

18. What do you think a company should do if it receives a Google Alert or RSS feed showing that customers are speaking poorly about its products?

Answers will vary, but responses should center around the idea that companies should treat the notices as a legitimate threat to the reputation of the company. The speed at which this information travels can cause companies to lost control of own brand images. Software may be purchased to assist the company in the real-time monitoring of social media conversations pertaining to their brand.

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