WEB-BASED SHOPPING VERSUS OTHER SHOPPING MODES: WHEN GIVEN A CHOICE, WHAT DO CONSUMERS PREFER?

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ABSTRACT

Consumers in the United States can purchase products using many different shopping modes, from traditional land-based stores to shopping at sites on the Internet's World Wide Web. Given this array of choices, retailers need to know what modes consumers prefer so they can develop appropriate strategies to keep existing customers and attract new ones. This study investigates the shopping preferences of a sample of consumers who are both computer literate and technology adopters. The results counter expectations and indicate that the path to widespread consumer adoption of Internet shopping may be somewhat bumpier than anticipated.

INTRODUCTION

Today's consumers have more shopping alternatives than ever before. These include (1) shopping in person at traditional in-store retailers, (2) responding to direct mail offers or catalogs, (3) shopping via televised home shopping networks or infomercials, (4) using computers or non-PC Web appliances to shop electronically on the Internet, and (5) going virtual shopping. With so many options, it is important to determine consumer preferences among the shopping modes so that retailers can respond to retain existing customers and attract new ones.

According to the U.S. Census Bureau, retail sales were over $2.5 trillion (not adjusted) in 1997 (Census Bureau 1997). Revenues (consumer and business-to-business) on the Internet's World Wide Web were $0 in 1994, $100 million in 1995, $2.7 billion in 1996, and $21.8 billion in 1997 (*Activmedia* 1998). Revenue projections vary greatly, but are anticipated to be around $200 billion in 1998 and over $1.2 trillion by the year 2002 (*Activmedia* 1998; Green, DeGeorge, Barrett 1998).

With so much at stake, it is understandable why many in business are anxious to know whether emerging shopping modes, and particularly the World Wide Web, will grow in popularity and eventually supplant or at least diminish in-store shopping. A shift in consumer shopping preferences could have immense ramifications, affecting the fundamental structure of today's retail businesses. The purpose of this article is to provide the results of a study conducted in 1994, and repeated in 1997, designed to examine preferences by one consumer group for new-age shopping modes versus more traditional approaches.

Traditional Shopping Modes

Traditional shopping modes include both store and nonstore forms. Stores vary widely from department to discount; hypermarkets to boutiques; and in location from free-standing or strip malls to vast enclosed shopping malls with over one million square feet under roof. These are traditional stores that consumers must ordinarily visit in person in order to complete a transaction, although some offer personal shoppers as a service to customers with special needs. It is estimated that shoppers now spend only about 4 hours per month in malls, visiting 3-5 stores each visit. This compares to an average of 12 hours per month in the 1970s, visiting twice the number of stores (Whitehall 1994).

Retailers offer many nonstore shopping choices, often used in conjunction with traditional in-store options, such as a catalog mailed by a store retailer. Other nonstore alternatives include direct mail, television shopping (networks and infomercials), door-to-door sales, telemarketing, vending, and home shopping parties. Shopping on the Internet's public World Wide Web, mostly by computer, is the newest nonstore shopping alternative. Depending on one's point of view, the use of computers complicates or augments other modes of nonstore shopping. It represents a combination of new concepts for consumers—nonstore shopping using computers, networks, and information technology. This "technology cluster" alternative is being presented to fully industrialized societies today (Rogers 1995).

The success of alternative nonstore shopping modes and the probable diminishing in importance of in-store shopping presents marketers with a classic diffusion problem. After assessing the potential customer benefits of increased convenience, selection, and decision-aiding that clearly are possible using the newest shopping modes, will it be just a matter of time before consumers are buying predominantly via nonstore methods and, specifically, on the Web? Rogers' diffusion model includes time as a basic element, but it also concludes that communication within certain channels and the adoption

of a new idea is a social process (Rogers 1995). Thus, interesting questions for marketers include: (1) To what extent are shopping mode preferences changing? and (2) In what direction are these changes moving? The factors that affect the changes (speeding up or inhibiting) are of interest to marketers, businesses, consumers, and society.

Whether or not we as marketers personally participate in the diffusion of new shopping alternatives, we can expect to be affected by the predicted diminishing role of traditional shopping modes, along with the advancement of new ones. The tradeoffs are based on the consequences, both expected and unexpected, of using each mode. A major theme of this paper is that marketers must be more alert to how different consumer segments are responding to Web-based shopping alternatives and the long-term implications of the Internet for consumer marketing, which thus far has not been systematically or seriously examined (Peterson, Balasubramanian, and Bronnenberg 1997).

FROM TRADITIONAL TO WEB-BASED SHOPPING

Marketers are introducing new electronic shopping modes and enhancing them at an accelerating pace. Electronic message delivery and/or order-taking are common operations of this category. Home shopping via broadcast or cable television is a method that uses telephone communication to complete a sale. This method has attracted growing numbers of shoppers in recent years, the result of customer convenience demands. TV shopping is growing at an annual rate of 20 percent and now comprises yearly sales of over $2 billion (Zinn, et al. 1993). Home shopping networks, continuous selling programs broadcast on dedicated channels, and "infomercials" provide product display, demonstration, testimonials, and transmission of important features, details, pricing and financing information.

In such shopping modes, the audio-visual presentation duplicates some of the information exchange that is an important part of the in-store experience for many shoppers. Coupled with the convenience of calling in with a credit card to complete a transaction, this method is favored by many time-constrained shoppers. The demographics for TV shoppers are somewhat behind the national average in important areas such as income (median annual income of $34,900 versus $38,000), but TV shoppers are desirable to marketers because most of them are open to new styles and trends—26 percent versus 16 percent (Zinn, et al. 1993). Although consumers cannot instantaneously touch or try on the articles they purchase, firms usually offer lenient return or refund policies in order to reduce buyer hesitancy and lessen perceived risk.

The Internet's World Wide Web

A newer mode of electronic shopping is on the Internet's World Wide Web. The Internet has existed since the 1960s as government property and a private communication channel for researchers and scientists. The public World Wide Web is much more recent, dating from 1991-1992. The Web's commercial life began to take shape in 1993. Web traffic has grown from virtually nothing in 1992 to possibly as many as 90 million users today. Over 400,000 companies have Web sites and 85 percent of Web's domain addresses are now commercial (*TABNet* 1997). Business-to-business sales currently account for approximately 80 percent of Web revenues (Erwin, Modahl, and Johnson 1997).

Once consumers get to the Web, they can access business information, educational products, entertainment items, and offerings by small-to-large retailers and discounters, and participate in a growing global marketplace. In this online marketplace, consumers can purchase groceries, electronic goods, tickets, computers, clothing, services—just about anything (and often the same thing) that can be purchased in a store, through a catalog, or from a television program. Web shopping provides choice, convenience, volume, price, cost comparisons, and timeliness. Through the Web's enormous capacity to access data and graphics, consumers gain access to millions of products and virtually unlimited information about them. Because the Web is open and highly decentralized, consumers can shop a global marketplace that is relatively inexpensive and instantaneous.

Although Web shopping holds enormous promise, it is constrained by three important but not insurmountable problems. First, the Web can be a confusing, complex quagmire for shoppers unfamiliar with its arcane address system and the finer points of how to negotiate megadoses of consumer product offerings. To achieve its potential, a more efficient filtering process must be developed for consumers who only want to see or to be informed about products that interest them—that they like or need. This filtering will make searching enormous databases, for feature, price, and service information, manageable and coherent, thus precluding information overload and frustration for busy consumers.

Technological advances in graphics and communications access devices allow the buyer to see the product and manipulate information quickly and in a customized way. In theory, the Web shopper will control what and how much he/she sees on the screen. Unfortunately, it is still not consistently easy enough for the average consumer, within an acceptable period of time, to get on the Web, locate an electronic store, scan products by category or brand name, and complete a purchase involving a store account or credit card. This complexity will slow

the rate of diffusion of the new shopping mode. By comparison, shoppers can always drive to the mall without calling a help desk.

Second, many consumers hold deep-seated privacy concerns that are not easily dispelled. Privacy is an issue that has received considerable media attention and fuels consumer anxiety (MacClaren 1997a). This includes the privacy of personal information offered by consumers to retailers, the use of information collected without consumer knowledge for use in a database and/or sale to third parties, and the security of credit card transactions.

Third, with many users, traffic jams and congestion online are frustrating consumers just as much as shopping by car and trying to get to a mall and find a place to park frustrates them on land. Online congestion and traffic jams undermine the Web's advantages of convenience and timeliness. Initiatives are underway to alleviate this problem, particularly through the use of alternate routing and new transmission options, including existing telephone and cable lines.

Businesses are making large investments in the Web. They spent an estimated $217 million on Web marketing and advertising through the first six months of 1997, an increase of 256 percent over the first half of 1996 (*PROMO* 1997). These investments will result in faster, more engaging, and more interactive Web sites, along with more extensive advertising.

THE STUDY: METHODS

Given the explosion of high tech shopping forms described in the prior sections, the study reported herein was designed to examine the shifting preferences of one consumer group among traditional versus non-traditional shopping modes. College students were deemed appropriate as respondents because we desired to study consumers who are highly likely to be at the forefront of technology use to ensure their familiarity with all shopping modes, including electronic forms. Indeed, over the past decade, college students have been expected to be computer literate and to acquire many computer skills (Hafner 1995). In addition, single young adults are a key market segment for high technology products and services, and the younger segments of the population are often the first to use new products (Brown 1994). As Boden (1990, p. 63) has said, "For a variety of psychological reasons, the young—whether in science or art—tend to be less inhibited about changing the generative rules currently informing their minds. They have an unjaded curiosity." As for their involvement with the Web, the number of college students accessing the Web currently is estimated to be more than 7 million and will represent a $2.6 billion market by the year 2002. They are among the most "wired" of all consumer groups, spend-

ing an average 4.9 hours per week online (MacClaren 1997b).

To develop the questionnaire, a focus group was conducted among undergraduate business students to determine the shopping modes to include and to develop possible purchase scenarios. Participants were asked to list all purchases they had made in the past six months, excluding routine day-to-day purchases. Seven purchase categories were listed most frequently—casual clothing, exercise equipment, television sets, bicycles, birthday gift for a co-worker/friend, birthday gift for spouse/ significant other, and personal computer system/accessories. The five shopping modes were—in-person (in-store), catalog/direct mail, television home shopping, online shopping (online service or Web), interactive shopping (VR).

A pretest was conducted to ensure a high level of readability and understandability for the questionnaire. Pretest participants were a group of student members of a college business professional fraternity. Minor modifications were made based on pretest results. Appendix A provides the contents of the portion of the final instrument related to different shopping modes.

Main test participants were 146 students enrolled in a capstone business policy course at a major university in the Southeastern U.S. By definition, these students were at the end of their degree program and were about to graduate. Those who completed the questionnaire represented all business majors. All respondents indicated they use computers and had completed a mean of 2.57 computer courses. The mean age was 24 years; 56 percent of the sample were male.

Results

The 1994 and 1997 results are shown in Table 1. Without exception, in 1994 the overwhelming shopping mode of choice for all buying scenarios and product categories was in-person (in-store) shopping. The percentages ranged from 89 percent for casual clothing to 70 percent for exercise equipment. Percentages preferring other shopping modes were small.

These data were collected in 1994. With the continued diffusion of electronic shopping between 1994 and 1997, we assumed that in 1997 more consumers (especially our college student participants), would exhibit increased preferences toward electronic modes of shopping, at least in the high tech product category of personal computer system/accessories. This assumption was based in part on the rapid growth of the Internet, witnessed by the following quote from *Mediaweek* (1997, p. 58): ". . . the Internet will capture 50 million users in just five years. It took TV 13 years and radio 38 years to reach this milestone."

TABLE 1
1994 and 1997 Shopping Preference Results (%)

Option /Product	1	2	3	4	5	6	7
"You drive to the mall, visit several different stores until you find the product at a reasonable price. The salesperson then helps you to choose the best option available."	89.00 84.13	69.20 66.15	81.50 89.23	81.50 83.08	73.30 76.56	82.90 87.30	71.20 70.97
"You buy the product through a catalog or by information you received through the mail."	7.50 14.29	16.40 10.77	9.60 9.23	8.90 9.23	11.00 18.75	7.60 9.52	14.40 14.51
"You turn on the television and purchase the product through a home shopping channel or through an infomercial."	1.40 0.0	5.50 21.98	1.40 0.0	2.10 1.52	6.80 0.0	3.40 0.0	0.0 0.0
"You turn on your computer and purchase the product through an 'online' service such as Prodigy, America Online or CompuServe."	0.0 0.0	0.70 1.54	2.70 0.0	1.40 1.52	5.50 3.12	1.40 0.0	4.10 3.22
"You turn on your computer system and through interactive software you have the product 'custom built' for you and delivered to your home."	2.10 1.60	7.50 3.07	4.10 1.54	5.50 4.60	2.70 1.56	4.10 3.17	9.60 11.29

Key: Top number = 1994 (n=146) ; Bottom number = 1997 (n=66)
Product Key: 1 = Casual Clothing; 2 = Exercise Equipment; 3 = A Television Set; 4 = A Bicycle; 5 = A Birthday Gift for a Co-Worker; 6 = A Birthday Gift for a Spouse; 7 = A Personal Computer System

TABLE 2
ANOVA Results (1994 Versus 1997)

	F	p-value
Casual Clothing	.050	.824
Exercise Equipment	.077	.781
A Television Set	2.889	.091
A Bicycle	.069	.793
A Birthday Gift for a Co-Worker	1.569	.212
A Birthday Gift for a Spouse	.937	.334
A Personal Computer System	.038	.846

To determine if a shift in preferences had occurred, we collected additional data in 1997 using the same methodology and sampling frame, at the same university. The mean age of the 1997 sample was 26 years, 36 percent were male, and the mean number of computer courses taken was 3.23. Thus, the demographics of the 1997 participants were somewhat different from the 1994 group, yet the group still was representative of undergraduate business students in general. A total of 66 students participated. The results for the 1997 group are

shown in Table 1. Again, in-person (in-store) shopping overwhelmed other preferences.

Analysis of Variance (ANOVA) was performed to assess differences between the two time periods across the five purchasing modes and product categories. No statistically significant differences were found. Thus, we must conclude that not only was electronic commerce less preferred versus other shopping modes in 1994 and 1997, little if any movement had occurred among our student consumers in level of favorability toward electronic shopping during this three year time period. ANOVA results are in Table 2.

DISCUSSION

When designing this study, our original intention was to look at various traits or characteristics that might differentiate consumers expressing the five shopping mode preferences, particularly their motives and shopping orientations. Toward this end, our survey included such constructs as innovativeness, creativity, risk-taking, attitude towards computers, and visual/verbal processing styles. We originally anticipated that managerial implications might focus on such issues as different messages, message styles, and timing of messages, given the product life cycle of the shopping mode. Clearly, our results have led us to provide a different type of assessment—one more oriented toward *post hoc* explanation and more speculative about future research.

The results suggest that, although this sample was expected to be product innovators (Web shoppers) for personal computer system/accessories, the preferred shopping mode even for this high tech product category remained personal face-to-face in-store interaction. An in-store shopping preference in the other product categories might be less surprising. For example, a consumer might expect to "try out" exercise equipment or a bicycle before purchase, perhaps to obtain a custom fit. Significant differences in clarity, color, and operating ease exist between television models and necessitate in-store testing and selection. hoppers may want to try on casual clothing or browse several stores looking for inspiration before purchasing a gift.

Given the product categories used in this study and the subjects doing the hypothetical shopping, our results likely bolster an argument for the importance of the social aspects of the shopping experience, at least for this consumer group. Shopping is a social process for many consumers, and whether shopping independently, in twos, or in a group, the experience is heightened by involvement with other people. Shopping may be even more of a social process for students than others because it is part of a socialization process (e.g., fitting in with ones sorority sisters by shopping together) or even a dating ritual (e.g., boy/girl friend helping significant

other pick out a personal computer). However, the students in this study were enrolled in a commuter university and the typical school activities were less likely. Web shopping, though convenient, apparently failed to provide a desirable social experience.

This explanation can be further explicated by examining the two classes of shopping motives—utilitarian (functional, tangible reasons) and hedonic (experiential, intangible reasons) (Tauber 1972). The latter includes such shopping motives as social experience, interpersonal experiences, the satisfaction of being waited on, and the thrill of search and bargaining. Even though the personal computer system/accessories product category intuitively should be weighted toward a utilitarian motive set, it may be that hedonic motives still outweigh the utilitarian. Alternatively, it could be that many in our sample were not aware of the utilitarian advantages of Web shopping for high tech products, particularly in price and customization.

An alternative explanation involves the identification of consumers by shopping type—economic (value maximizing), personalized (relationships with store personnel), ethical (support of local retailers over chains), apathetic (hates shopping), and recreational (social shopper) (Bellenger and Korgaonkar 1980). Web shopping in the personal computer system/accessory category might appeal more to the economic and apathetic shopping types; less so to the personalized, ethical, and recreational shopper. Had there been a preference for Web shopping in the high tech product category, we would have initiated further investigation of motives and type.

Based on these data, young computer literate consumers preferred in-store shopping alternatives, at least in the product categories presented. However, in the years between 1994 and 1997, a dramatic increase has occurred in Web purchasing in different product categories, particularly travel, entertainment, books and music, and flowers. Forrester Research reports 1997 sales in these categories as $654 million, $298 million, $156 million, and $149 million respectively (Green, DeGeorge, and Barrett 1998). A follow-up study should focus on personal computers and these additional categories, then contrast current shopping mode preferences in a *post hoc* design to determine if there are significant differences between the two groups of product categories by shopping mode preference.

Another future research topic with managerial implications addresses how to make Web shopping more personal and interactive, particularly for this consumer demographic group, in order to provide an attractive alternative to in-store shopping. Some Web sites already employ an avatar or electronic guide in an effort to facilitate site navigation and lend interactivity. Whether or not this is a satisfactory substitute remains to be seen.

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APPENDIX A
Portion of Instrument Related to Shopping Modes

Below you will find products that you may buy from time to time. **Assume that you have a need to buy each of the products listed** and indicate how you would prefer to purchase the product. Assume that you have access to all of the shopping options and assume that the product is the same price in all situations. The options are:

1. You drive to the mall, visit several different stores until you find the product at a reasonable price. The salesperson then helps you choose the best option available.

2. You buy the product through a catalog or by information you received through the mail.

3. You turn on the television and purchase the product through a home shopping channel or through an infomercial.

4. You turn on your computer and purchase the product through an "online" service such as Prodigy, America Online, or CompuServe.

5. You turn on your computer system and through interactive software you have the product "custom built" for you and delivered to your home.

_____ 1. Casual clothing

_____ 2. Exercise equipment

_____ 3. A television set

_____ 4. A bicycle

_____ 5. A birthday gift for a co-worker

_____ 6. A birthday gift for a spouse

_____ 7. A personal computer system

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