DIFFERENTIATION OF SATISFIED USERS AND DISSATISFIED USERS OF IN-HOME ELECTRONIC SHOPPING MODE: AN EXPLORATORY STUDY

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ABSTRACT

The purposes of this study were (a) to investigate differences between satisfied and dissatisfied electronic shoppers; and (b) to examine the overall level of satisfaction with electronic shopping attributes among shoppers. The questionnaire was mailed to 1,000 videotex subscribers, and 551 usable questionnaires were returned. Of those, 132 subjects were classified as electronic shoppers. The satisfied electronic shopper was different from the dissatisfied electronic shopper with respect to: (a) two shopping orientations, (b) satisfaction with variety of selection offered, (c) frequent usage of three videotex services, (d) overall satisfaction with videotex services, (e) frequent purchase of three products and services, (f) general media usage, (g) two lifestyle activities, and (h) education.

INTRODUCTION

Electronic in-home shopping is a reality in today's world, and the future is sure to see its growth and expansion. Electronic shopping or computerized shopping is a means whereby customers can purchase both goods and services using an electronic device such as a home computer and a telephone (Goldstucker, Moschis, & Stanley, 1986). Acceptance of electronic shopping has been demonstrated by its proliferation and growth during recent years. The Electronic Mall, a home shopping service for personal computer owners from CompuServe Incorporated, Columbus, Ohio, has reported that sales increased by 240 percent per year since its inception in 1985. Sales were up 76% in 1990 (Manning, 1990). Prodigy, a joint venture of Sears and IBM, has recently expanded its service into numerous cities. Prodigy's initial $600 million investment is predicted to increase to $1 billion (Engel, Blackwell, & Miniard, 1990).

Despite the potential for significant growth in electronic shopping and a great amount of attention from researchers and practitioners, few published empirical studies exist concerning electronic shoppers in general. Lack of research regarding electronic shoppers' satisfaction is even more evident, although this is also true with traditional retail establishments (Westbrook, 1981). Understanding consumer satisfaction and dissatisfaction with a retail outlet is critical to the retailer. The conceptual domain of consumer satisfaction is not limited to product usage experiences; therefore, retailers require knowledge not only of consumer satisfaction with the products their outlets offer, but also with other facets of shopping, buying and interacting with the outlet itself (Westbrook, 1981).

The underlying principle for marketing any product or service is to satisfy consumers' needs and wants, which is an absolute necessity for the competitive survival of electronic retailing. Therefore, the marketer cannot overlook the importance of understanding the satisfaction level of electronic shoppers and factors influencing satisfaction.

Purposes of the Study and Justifications

This exploratory study was designed to investigate factors which may influence consumers' overall level of satisfaction with products and services purchased through electronic shopping. Furthermore, satisfaction level with attributes of electronic shopping was also descriptively examined. A satisfaction study is particularly needed because, despite the optimistic predictions of electronic retailing by many experts, some researchers have expressed pessimistic opinions regarding the electronic shopping future (*Marketing News*, 1981; Mitchell, 1980). One

way to assure the profitable growth and ultimate success of electronic shopping depends on satisfying consumer shopping needs rather than trying to offer more of particular services (George, 1987). George (1987) further commented that the future structure and operation of electronic retailing will be determined by the extent to which marketers recognize the multiplicity of the consumer shopping needs and different ways of satisfying the consumer.

Inadequate market research is one of the major obstacles to the successful introduction of new product or service offerings (Engel et al., 1990). Being a partial solution to such problems, this study provides a unique understanding of differences between the satisfied user and the dissatisfied user of electronic shopping. Moreover, this study contributes to the limited body of scholarly knowledge regarding electronic shopping consumers.

Specific objectives of the study were as follows:

Objective 1. To investigate differences between the satisfied electronic shopper and dissatisfied shopper in terms of:

1) shopping orientations
2) satisfaction with electronic shopping attributes
3) usage of and satisfaction with videotex services
4) products and services purchased through electronic shopping
5) information usages
6) lifestyle activities
7) demographics

Objective 2. To identify the overall level of electronic shoppers' satisfaction with shopping attributes.

Profile of Electronic Shoppers

Demographics. Presently, the knowledge of the current and potential electronic shopper is limited to his or her demographic characteristics. For instance, member surveys of two videotex companies revealed that the majority of subscribers: (a) had a relatively high household income, (b) had four years or more of college education, (c) were married, (d) were in households where both spouses work in professional occupations, and (e) were in the 34 to 44 age category (CompuServe, 1987; Prodigy, 1989). It also has been reported that the demographic profile of current electronic shoppers was similar to that of potential users in terms of high income, high education, and younger age (Shim & Drake, 1990).

Shopping Orientations. An important issue in understanding consumer adoption of electronic shopping involves the identification of the shopper styles that places particular emphasis on certain activities (Urbany & Talarzyk, 1983). These styles refer to consumer shopping orientations, encompassing shopping activities, interests, and opinions (Howell, 1979). Research generally has indicated that consumers' shopping orientations are a strong predictor of both individual store and store-type choice behavior (Darden & Howell, 1987). Therefore, it is assumed that consumers with different shopping orientations will conceivably have different attitudes toward the use of electronic shopping technology (Urbany & Talarzyk, 1983). Consequently, the attitude toward electronic shopping may eventually affect their satisfaction with electronic shopping.

Korgaonkar and Moschis (1987) found that college students who were favorable toward videotex services tended to be time conscious, opinion leaders, and have high-tech inclinations. Shim and Drake (1990) also found those who were likely to adopt electronic shopping (a) to have in-home shopping orientations, (b) to be dissatisfied with local shopping, (c) to feel time pressure for shopping, (d) to be a planned buyer, (e) to be interested in fashion, and (f) not to enjoy shopping at a shopping center.

Fields and Greco (1988) defined symbolic adopters of in-home video shopping as individuals who symbolically adopt the idea of an innovation. The researchers reported that symbolic adopters were more likely to have an in-home shopping orientation than did symbolic rejecters. In another study utilizing college students, Mast, Shim, and Morgan (1990) reported that potential users of electronic shopping were more likely to be social or recreational shoppers and price-conscious shoppers.

Electronic Shopping Attributes, Products and Services

Shopping Attributes. Westbrook (1981) identified eight components of retail attributes as sources of consumer satisfaction: (a) store salesperson, (b) store environment, (c) merchandising policies, (d) service orientation, (e) product/service satisfaction, (f) clientele, (g) value/price relationship, and (h) special sales.

The unique aspects of electronic shopping and in-home shopping in general may include time-saving, efficiency, and convenience, on which marketers should capitalize for the future success. Therefore, it was deemed important to investigate the level of satisfaction with electronic shopping attributes among current users.

Products and Services Offered through Electronic Shopping. Mast et al. (1990) found that, as compared to non-potential electronic shoppers, potential shoppers were more interested in using on-line shopping, entertainment/game services and purchasing airline tickets. Potential users indicated they would purchase a variety of high-risk (e.g., clothing, gifts) and low-risk (e.g., books, records) products via electronic shopping. The success of electronic shopping services depends in part on offering prototypical products--highly recognizable and easily comprehendible products that require no inspection prior to purchase (George, 1987). In light of this, it would be beneficial to investigate what types of products and services would satisfy the shopper.

METHODS

Sampling and Data Collection

A national random sample of 1,000 users was drawn from one of the major videotex companies in the United States. This company offers a variety of videotex services such as financial information, electronic mail, and electronic shopping. Data were collected via a five-page mail questionnaire sent to 1,000 subscribers of the videotex. After a second follow-up mailing, approximately 600 questionnaires were returned for a return rate of 60 percent. Of those, 14 were not usable and 35 were returned after the data analysis began; therefore, 551 questionnaires were usable.

In order to identify in-home electronic shoppers, respondents were asked if they had purchased any merchandise in the past 12 months through electronic shopping offered by the videotex company. This question was measured by having respondents indicate either a "yes" or "no." Those who indicated "yes" were categorized as users of electronic shopping ($\underline{n}$=132) while those who indicated "no" were classified as non-users of electronic shopping ($\underline{n}$=342). One hundred thirty-two respondents were analyzed in this study.

Respondents Profile

The majority of respondents were male (96%) and caucasian (93%). Sixty-seven percent of the respondents were in the 26 to 44 age category and reported their total household income being $50,000 and above. Seventy-two percent were married while 96% indicated having attended junior college and above. Sixty-four percent reported to hold professional occupations (e.g., management, engineers, doctors, lawyers, and corporate officials and executives). In terms of geographic location, 17% were from the north central, 31% from the north east, 18% from the south, and 34% from the west. Fifty-five percent indicated that they lived in a suburban area, with 24% residing in a metropolitan city.

In order to address possible nonresponse bias, the demographics of the electronic shopper ($\underline{n}$=132) were compared to the demographic profile of the entire sample collected ($\underline{n}$=551) and the U.S. population. The demographic profile of the electronic shoppers was quite similar to that of the entire sample on gender, marital status, age, education, and income. As compared to U.S. population, however, the electronic shopper appeared to include more males with higher status of occupation. A larger percentage of the electronic shopper tended to be married, highly educated, high income earners, and younger than the U. S. population. Therefore, the generalization of the findings of the study appears to be valid among videotex subscribers, but not among the U.S. population.

Measurements

Overall Satisfaction Level with Electronic Shopping. Respondents were asked to indicate their overall level of satisfaction with products and services purchased through the electronic shopping mode during the past 12 months. Satisfaction was measured on a five-point Likert-type scale ranging from 1 (very dissatisfied) to 5 (very satisfied).

Shopping Orientations. A total of 51 statements were included to measure electronic shoppers' orientations toward shopping on a five-point scale. The majority of shopping orientation questions were adopted from previous studies (Lumpkin, 1985; Lumpkin, Hawes, & Darden, 1986; Shim & Drake, 1990); the statements unique to electronic shopping were developed by the researchers (e.g., "Learning how to use the various aspects of electronic shopping is easy"). Principal component factor analysis with varimax rotation was performed, using the minimum eigenvalue of one as the criterion to control the number of factors extracted. Items loading .40 or greater on a single factor were included (note that this method was utilized throughout the paper whenever a factor analysis was performed).

As a result, 14 factors were developed, retaining 42 statements. Factor loadings ranged from .40 to .86, and the total percent of variance accounted for was 63%. Table 1 presents a sample statement for each factor and pertinent statistics. Standardized alpha coefficients of the majority of the factors ranged from .60 to .85. Factor 12, 13 and 14 (all related to electronic shopping) had standardized alpha coefficients ranging from .50 to .57, thus indicating the need for additional refinement of the scales in future research.

Satisfaction with Electronic Shopping Attributes. Fifteen attributes of electronic shopping were asked respondents to indicate their level of satisfaction on a five-point scale ranging from 1 (very dissatisfied) to 5 (very satisfied). Factor analysis revealed three factors. Factor 1--variety of offerings--included seven items (e.g., a variety of selection, a variety of style). Factor 2 was labeled "easy shopping/quality," including five items (e.g., shopping ease, merchandise quality).

Table 1
Factor Analysis of Shopping Orientations

Factors Sample Statement and Number of Items Included	Factor Loadings	Percent Eigenvalue	Standardized of Variance	Alpha Coefficient
Easy to Use				
Learning how to use electronic shopping is easy (4).	.86	4.33	9.8	.85
Innovator				
I like to try new things (3).	.81	3.60	8.2	.78
Appearance/Fashion Conscious				
I like to be considered one of the best dressed in a group (3).	.85	2.73	6.2	.78
Price Conscious/Cautious				
I find myself checking prices even on small items (5).	.76	2.48	5.6	.75
In-home Shopping Prone				
I usually have more success shopping by mail, phone or computer than shopping in a store (4).	.69	2.14	4.9	.69
Comparative Electronic Shopper				
I shop through a catalog or store prior to purchasing through electronic shopping (2).	.86	1.85	4.2	.79
Perceived High Cost of Electronic Shopping				
For the average consumer, the cost of subscribing to the electronic shopping is high (4).	.71	1.67	3.8	.61
Recreational shopper				
I go shopping for recreation (3).	.79	1.65	3.7	.60
Credit User				
Paying with a credit card is more convenient than paying with cash (2).	.86	1.47	3.3	.81
Shopping Opinion Leader				
When I find a good store, I often tell my friends about it (2).	.61	1.38	3.1	.69
Convenient/Time Conscious				
I usually buy at the most convenient store (3).	.71	1.23	2.8	.62
High-Tech In-Home Shopper				
I would use home TV shopping (2).	.74	1.12	2.6	.57
Perceived Ambiguity				
I use the electronic shopping manual often (3).	.62	1.07	2.4	.54
Perceived Similarity of Shopping				
Shopping via electronic shopping is similar to that of mail, telephone or catalog shopping (2).	.76	1.00	2.3	.50

Finally, factor 3 retained three items, and was named "shopping time required" (e.g, time spent on shopping). Total percent of variance was 58.1%, and factor loadings ranged from .51 to .90. Standardized alpha coefficients ranged from .71 to .85.

Usage of and Overall Satisfaction with Videotex Services. Respondents were asked to indicate how often they had utilized 16 different videotex services offered by the company. The usage level was measured based on "never" (1) to "3+ times a week" (5). Following this question, respondents were asked to indicate the level of overall satisfaction with the services offered by the videotex company, ranging from "very dissatisfied (1)" to "very satisfied (5)."

Factor analysis on 16 videotex services revealed five factors: (a) computer/professional forums (e.g., hardware or software related forums); (b) financial information (e.g., current and historical stock quotes); (c) general information (e.g., home/health, weather/news); (d) games (e.g., games, hobby forums); and (e) information exchange (e.g., CB, electronic mail). The total percent of variance was 63.3% and standardized alpha coefficients ranged from .50 to .70.

Products and Services Purchased through Electronic Shopping. Respondents were asked to indicate how often they had purchased 20 items of products and services offered by the videotex company in the past 12 months. Frequency of purchase was measured on a scale ranging from "never" (1) to "6+ times" (5).

As a result of factor analysis, six factors were derived: (a) service information (e.g., travel reservation); (b) apparel/auto (e.g., men's clothing); (c) health/leisure (e.g., sports); (d) gifts (e.g., gourmet foods/flowers); (e) cultural products (e.g., arts/books); and (f) hobbies (e.g., games). The total percent of variance was 68.7%, with standardized alpha coefficients ranging from .57 to .78.

Information Usages. Respondents were asked to indicate how often they utilized eight information sources when selecting a store or product through electronic shopping. Frequency of information usage was measured on a five-point scale ranging "never (1)" to "very often (5)." Resulting from factor analysis, two factors were developed: (a) general media (e.g., newspaper advertising); and (b) videotex media (e.g., publication by the videotex company). Total percent of variance accounted for was 65%, and standardized alpha coefficients were .71 and .73, respectively.

Lifestyle Activities. Twelve lifestyle activity items were adopted from previous studies (Shim & Kotsiopulos, 1991; Shim, Kotsiopulos, & Knoll, 1990). Respondents were asked to indicate the frequency of their participation in each activity during the past year on a Likert-type scale ranging from "never (1)" to "very often (5)." Factor analysis identified three factors. Factor 1--"sports/physically oriented"--included three items (e.g., engaged in physical workouts). The second factor retained four items and was named "cultural" (e.g., visited an art gallery/museum). Finally, factor 3 included three items and was labeled "church/family/learning-oriented" (e.g., attended church).

Demographics and Pretest. Typical demographic questions were asked including sex, age, marital status, total household income, and education. A pretest questionnaire was mailed to 50 current videotex users; of those, 20 questionnaires were returned. Based on recommendations from the pretest, the final questionnaire was revised.

RESULTS

Grouping Into the Satisfied Shopper and the Dissatisfied Shopper

In order to achieve the first objective of the study, the subjects were divided into two groups: satisfied users and dissatisfied users of electronic shopping. Based on a five-point scale, those who indicated "very dissatisfied (1)" or "dissatisfied (2)" were classified into the dissatisfied group ($\underline{n}$=33). Those who indicated "satisfied (4)" or "very satisfied (5)" were classified into the satisfied group ($\underline{n}$=55). Respondents who indicated "neutral" (3) were not included in this

Table 2
Discriminant Coefficients, Means and Standard Deviations of Discriminating Variables Between Satisfied and Dissatisfied Electronic Shoppers

Predictor Variables	Standardized Canonical Discriminant Function Coefficients	Means (S.D.) Dissatisfied (n=33)	Satisfied (n=55)
Satisfaction with variety of offerings (a)	.88***	2.87 (.34)	3.45 (.54)
Recreational shopper (b)	-.67***	2.85 (.79)	2.54 (.86)
Gifts (c)	.55***	1.21 (.37)	1.50 (.39)
Church/family/learning oriented (d)	.48***	2.39 (.85)	2.74 (.81)
Used games through videotex services (e)	-.39***	1.76 (.81)	1.65 (.69)
General media users (f)	.38***	2.99 (.87)	3.29 (.73)
Overall satisfactions with videotex services (g)	.35***	3.65 (.93)	3.91 (.71)
Used financial information (e.g., stocks) (e)	-.34***	1.71 (.79)	1.60 (.91)
Apparel or auto parts (c)	.33***	1.02 (.15)	1.12 (.21)
Hobbies (c)	.31***	1.11 (.32)	1.21 (.41)
Education (h)	.25***	3.52 (1.35)	3.82 (1.54)
Sports/physically oriented (d)	-.20***	2.76 (1.02)	2.58 (1.08)
Price conscious/cautious shopper (b)	-.23***	3.41 (.67)	3.21 (.64)
Obtained service information (e)	.19***	1.52 (.66)	1.76 (.92)

Table 2 (cont.)

Canonical Correlation		.72
Group Centroids	Dissatisfied Users	-.96
	Satisfied Users	.64
Wilks' Lambda		.62
Chi-Square		59.0***
Classification Results		78%

Note:
(a) satisfaction with electronic shopping attributes (1 = very dissatisfied to 5 = very satisfied);
(b) shopping orientations (1 = strongly disagree to 5 = strongly agree);
(c) products purchased through electronic shopping (1 = never to 5 = 6+ times in the past 12 months);
(d) lifestyle activities (1 = never to 5 = very often participated);
(e) usage of videotex services (1 = never to 5 = 3+ times a week);
(f) information usage (1 = never to 5 = very often used);
(g) overall satisfaction with videotex services (1 = very dissatisfied to 5 = very satisfied).

*** $P < .001$.

analysis (n=44).

Differences Between the Satisfied Shopper and the Dissatisfied Shopper

Stepwise discriminant analysis was performed to compare satisfied shoppers and dissatisfied shoppers on 39 variables (14 shopping orientations, 3 electronic shopping attributes, 5 videotex services, overall satisfaction with videotex services, 6 products and services, 2 information usage, 3 lifestyle activities, and 5 demographics). Table 2 presents the results of the stepwise discriminant analysis, including significant variables, standardized coefficients, means and standard deviations for both groups.

Fourteen variables differentiated satisfied shoppers of electronic shopping from dissatisfied shoppers. Of those, nine variables had positive standardized canonical discriminant function coefficients (satisfaction with variety of offerings, gifts, church/family/learning-oriented, general media users, overall satisfaction with videotex services, apparel or auto parts, hobbies, education, and service information). On the other hand, five variables had negative coefficients (recreational shopper, games, financial information, sports/

physically oriented, and price/cautious shopper). The discriminant function correctly classified 78% of the subjects in the two groups, indicating that it was successful in predicting group membership.

As compared to dissatisfied shoppers, satisfied in-home electronic shoppers were more likely: (a) to be satisfied with the variety of offerings, (b) to purchase gift items, apparel or auto parts, and hobbies through electronic shopping, (c) to engage in church-, family-, and learning-oriented activities, (d) to utilize general media, (e) to be overall satisfied with videotex services, (f) to have a higher education level, and (g) to obtain service information through videotex services. In contrast, satisfied shoppers were less likely: (a) to go shopping for recreation or relaxation, (b) to use games, (c) to seek financial information through videotex services, and (d) to be price-conscious shoppers.

Descriptive Analysis of Level of Overall Satisfaction with Electronic Shopping Attributes

Based on a scale ranging from 1 (very dissatisfied) to 5 (very satisfied), the entire sample of respondents had a mean score of 3.22--slightly above neutral level. Merchandise quality had the highest satisfaction score ($\underline{M}$=4.1), followed by nine attributes with scores between 4 and 3: shopping ease, delivery, credit, store reputation, ease of access, variety of stores, variety of selection, variety of style, and advertisement. The remaining five attributes had the mean scores ranging from "neutral (3)" to "dissatisfied (2)," in the order of frequency of sale, ease of return, time spent on shopping, description of merchandise, and price. The standard deviation ranged from .32 to .74.

DISCUSSION AND IMPLICATIONS

The first objective of this study was to develop a profile of the satisfied electronic shopper among videotex users. The most important predictor of overall satisfaction with electronic shopping was satisfaction with the variety of offerings such as selection, style, different stores, and prices. This finding indicates that electronic retailers need to be concerned with the variety of merchandise offered. In terms of product categories, satisfied shoppers were more likely to purchase gifts, hobbies, and apparel or auto parts than were dissatisfied shoppers. Particularly, gift items (e.g., clothing, gourmet foods, flowers, gift, and collectibles) were powerful discriminators of the satisfied shopper versus dissatisfied shopper. This result indicates that marketers are in a strong position to influence the adoption process of electronic shopping by promoting gift items first than other product categories.

In terms of shopping orientations, the satisfied user tended to be a less recreational shopper than the dissatisfied user, meaning that the satisfied user considered traditional shopping neither as recreation nor as a tool for relaxation. This is consistent with previous research findings whereby in-home shoppers were found to hold unfavorable attitudes toward traditional retailing establishments (e.g., Shim & Drake, 1990). The satisfied shopper also tended to be less price conscious than did the dissatisfied shopper. This finding seems logical in that those who do not enjoy shopping around for bargains may be happy with products and services available through electronic shopping, enabling them to stay at home. Obviously, electronic marketers can benefit by targeting people who do not enjoy shopping outside of the home.

In terms of lifestyle activities and information usage, satisfied consumers were likely to utilize general media (e.g., TV, newspaper) and be church-, family-, or learning-oriented, yet were unlikely to be sports- or physically-oriented. It appears that those who were satisfied with electronic shopping tended to be somewhat family-oriented in a rather sedentary manner. Since they were also learning-oriented, perhaps marketers may emphasize this learning aspect using a family environment situation in promoting electronic retailing via general media.

It was not surprising to find that satisfied users of electronic shopping were also satisfied overall with the videotex services offered. Thus, videotex marketers need to be concerned with satisfaction with videotex services first rather than try to attract potentially new customers who are not currently videotex users. This is particularly important in that not all videotex services are expected to be adopted by the consumer at the same rate. For example, information-related and

message-exchanging services are likely to be adopted more quickly than transactional services such as electronic shopping (Moschis, Goldstucker & Stanley, 1985). This may be due to the fact that electronic shopping represents a higher risk in terms of consumer adoption, as compared to information and message services. Thus, it appears that to attract additional electronic shoppers, marketers may do well to target current videotex subscribers than non-subscribers.

It was interesting to note that satisfied users of electronic shopping were less likely to use of some videotex services such as games/hobby forums (e.g., games, outdoor forum, wine forum) or financial information (e.g., stock quotes). However, they tended to use service information such as travel and vacation. This may be due to the satisfied electronic shopper's viewing videotex services as a means to easily and quickly acquire merchandise or services such as airplane tickets and vacation reservations. Easy, rapid acquisition of products and services may be viewed as more important than obtaining enjoyment aspects of services--games and hobbies.

The second objective of the study was descriptively to examine the level of satisfaction with electronic shopping attributes among the current electronic shopper. The electronic shopper expressed relatively high satisfaction with quality of merchandise; however, all other shopping attributes were located below the satisfaction level. In particular, attributes that need improvements were frequency of sale, ease of return, time spent on shopping, description of merchandise, and price of merchandise. Time spent on shopping may have been influenced by the subscription fee charged by the videotex company while using the videotex services. A monthly fixed fee system may reduce a shopper's feeling of being rushed.

CONCLUSIONS AND RECOMMENDATIONS

The major significance of this study demonstrated distinct differences between the satisfied electronic shopper and the dissatisfied electronic shopper. As such, the satisfied user market of electronic shopping appears to be highly predictable with respect to several marketing variables. The success of this form of retailing will depend on electronic marketers' ability to recognize differences among consumers and to identify methods of satisfying this market.

Despite the potential of videotex systems, large unexplored areas still remain regarding videotex, more specifically, the use of videotex technology for shopping. Consequently, additional marketing research is needed to determine consumer needs and identify efficient ways to satisfy such needs. Future research should investigate satisfaction among the electronic shopper in the context of theoretical frameworks, e.g., Oliver's expectancy disconfirmation model (1980).

The findings of this study are limited in that the sample was from the subscribers of one videotex company. Perhaps data collected from several videotex companies would be desirable in order to generalize and broaden the findings. The sample also consisted of primarily male users; therefore, further research is recommended to include more females. The fact that the majority of the videotex services are used by males may cause difficulty of collecting data from females; however, females are typically more involved than males with the shopping process and may be more attracted to this type of retailing in the future. In addition, this study utilized a single-item scale for the measurement of satisfaction level. A much more refined multi-item scale should be used in order to increase the validity and reliability of the measure.

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