VITALITY OF MULTI-CHANNEL RETAILING:

Function of Retail Synergy and Consumers' Perceived Benefits and Costs

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Overview

Consumers increasingly shop across multiple channels—bricks-and-mortar stores, catalogs and/or Web sites—in order to maximize shopping benefits and minimize shopping costs. At the same time, the retail industry has matured and stores can no longer count on increased earnings because of their physical expansion. Because cross-selling to customers across multiple channels increases profit margins per customer, the future of retailing is not just about bricks-and-mortar or Internet e-commerce or catalogs; it is the synergy in multi-channel retailing. Synergy in multi-channel retailing provides opportunities for strategic development.

This study was aimed at determining whether and when multi-channel retailers can implement synergy in retailing across different channels and identifying specific strategies multi-channel retailers must develop to increase profitability and meet

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their customers' needs. This study utilized both (a) a qualitative analysis of primary data with multi-channel retailers and (b) a quantitative modeling of primary data with multi-channel consumers.

Ten multi-channel retailers who were pursuing at least two of the three channels (bricks-and-mortar stores, catalogs, and Internet) were surveyed to determine the importance of synergy among multi-channels. A computer-assisted telephone Interview was utilized to obtain responses from 500 consumers who had purchased products from bricks-and-mortar stores, through catalogs and from the Internet.

The vitality of multi-channel retailing was predicted by drawing inferences from the data that were gathered from the retailers as well as the consumers. All the retailers had a high degree of synergy in their channels of operation and placed great importance on synergy within the channels. The purchase intention of consumers from each of the three channels (bricks-and-mortar store, catalog and the Internet) was predicted by different combinations of demographic variables, shopping benefits and shopping costs perceived for the specific retail channel. The consumer's purchase intention was dependent on shopping benefits and costs of each retail channel. The consumer wanted a seamless shopping experience irrespective of the channel.

■ Introduction

Today's consumer market is typified by such factors as an increase in dual-income families; an ever-growing concern over lack of time; the revolution of technology; and a myriad of shopping choices—not only among different products and brands but also among diverse retailer formats such as bricks-and-mortar stores, print catalogs and Web sites. Consumers are increasingly shopping across multiple channels in order to extract maximum shopping benefits (Chwelos and Brydon, 2000). In fact, it has been reported that about 30% of consumers prefer to shop at sites that have physical stores (Ernst & Young, 2001a) and multi-channel shoppers spend 30% more money than single-channel shoppers (Bartlett, 2000).

At the same time, the retail industry has matured, and stores can no longer count on increases in earnings because of their physical expansion. Therefore, retailers have to find new ways to create shareholder value with

a minimum of assets (Loeb, 1998). It appears that the retailers with the broadest channel representation are best positioned to improve customer loyalty and retention rates, because cross-selling to customers across multiple channels increases profit margin per customer (Pulliam, 1999). Already, multi-channel retailers account for 62% of e-commerce (Anonymous, 1999a). Moreover, it has been reported that net store growth continues to be faster for retailers with online channels than for those without them and that store closings are dominated by store retailers with no online channel (Baker, 1999). It is evident that multi-channel retailing is a compelling premise for every type of store operator in every product classification and in every size format (Global Online Retailing Report, 2001). In fact, most experts predict that, by the year 2002, virtually all traditional store-based retailers will have developed multi-channel retail formats to reach their target markets (Ginsburg and Morris, 1999).

With the revolution of e-tailing, the impact of Internet shopping on bricks-and-mortar shopping is mixed. For example, some analysts have noticed the negative impact on bricks-and-mortar stores, arguing that the Internet is simply a reallocation from other consumer spending or a siphoning off of market demand from traditional retailing. Others have argued that the Internet will generate more spending rather than taking money away from the bricks-and-mortar stores (Roe, 1999), because the Internet is stimulating market demand by creating an increased access to goods and services and by adding a new degree of shopping convenience, interactivity, community and entertainment (Pulliam, 1999; Roe, 1999). Furthermore, there is strong evidence that the Internet is never going to replace store shopping, for the same reason that catalog sales did not completely displace retail stores but did successfully establish geographically dispersed markets offering products and services at competitive prices. Similar changes are expected as increasing numbers of customers become electronically linked to retailers around the globe (Hair and Keep, 1997).

Evidently, multi-channels will meet the consumers' desires for flexibility while shopping for what they want, when they want it and in the way they want it (Johnson, 1999). The challenge, then, is to understand how and when consumers use the Internet, print catalogs or bricks-and-mortar stores.

■ Shopping Benefits and Costs Perceived through Multi-Channels

Today's consumers are efficient shoppers, selecting retailers with which they perceive that shopping can be done most satisfactorily. In other

words, consumers seek to maximize the benefits of their shopping activity and minimize the costs of shopping and the amount of money, time and energy it takes to acquire a given product (Downs, 1961; Kim and Kang, 1997). More specifically, consumers want satisfaction from a shopping experience, as well as convenience and excellent service, whether in a store, through a catalog or over the Internet (Anonymous, 1999b). The experiential aspect of shopping has also become a significant component of successful in-home retailing as well as bricks-and-mortar retailing. With catalogs as well as the Internet, consumers can enjoy pictures of a wide variety of merchandise presented in a visually pleasing atmosphere. Additional entertainment can be obtained through Internet shopping, including Web surfing in a multimedia presentation, playing interactive games and chatting with others who have common interests. In addition to the maximum benefits consumers want to receive, they also want to reduce the costs of shopping in any shopping environment in terms of money (e.g., cost of product, transportation, shipping cost); time (e.g., travel time, waiting in check-out lines, time needed to locate a specific item or address); and energy (e.g., energy expended on parking, traffic, pushy salespeople, broken links).

Consumers' reasons for the selection of the Internet versus the catalog versus the bricks-and-mortar store for their shopping can vary for different consumers and in different situations, even for the same consumer. For instance, some consumers may shop mainly in the store because they want to enjoy the tactile aspects of shopping, the touching and trial of products prior to purchase, and they view the shopping experience as an opportunity for social interaction that adds variety to their lives, whereas other consumers may use the Internet or catalogs for such reasons as being able to shop in the comfort of the home and to conduct fast transactions (Harden, 1992; Kruger, 1997).

Also, consumers may use the Internet, catalogs and traditional retail channels differently in two stages of the shopper decision process: seeking information and making purchases. Some shoppers browse online and then place the order by mail or telephone or purchase in a physical store. Some other shoppers use a print catalog to identify products they want and then go online to the catalog's site to place the order. Still other consumers may retain conventional retailers when searching for information while using Internet resources for purchasing (Peterson, 1997; Pulliam, 1999).

These consumer phenomena suggest that multi-channel retailers need to provide easy and efficient accommodation for individual consumers (Pulliam, 1999). Retailers first must determine whether consumers have the same shopping needs in different retail channels. This entails

comparing multiple retail channels in shopping benefits and costs perceived by consumers.

■ Synergy in Multi-Channel Retailing

It has been widely recognized that the future of retailing is not just about bricks-and-mortar or Internet e-commerce or catalogs; it is the synergy in multi-channel retailing (Reda, 2000). Synergy in multi-channel retailing provides opportunities for strategic development. It allows for coordinating merchandising and customer service programs across channels to present and maintain a unified brand experience, continuously strengthening customer relationships using personalization and communication abilities. Therefore, retailers who synchronize across channels will be better positioned for success in today's competitive environment.

However, multi-channel retailing entails several major challenges. The main uncertainty is exactly how online, catalog and physical retailing will knit together (Anonymous, 1999b). There is an obvious discontent today between what customers say they want and what multi-channel retailers offer (Ernst & Young, 2001b). Moreover, almost three-quarters of online buyers said they expect the online site to have the same products as the store or catalog (*Global Online Retailing Report*, 2001). Accordingly, multi-channel retailers may have to provide a seamless customer experience, replicating a shopper's experience from one retail channel in another retail channel setting. This requires ensuring that all channels are integrated so that the customer's experience is consistent at every point of access (Shern, 2000).

Despite the anecdotal evidence that synergy in multi-channel retailing is in accordance with today's consumer needs, no empirical research has been conducted to determine whether and when multi-channel retailers can implement synergy in retailing across different channels. A critical need exists that identifies specific strategies that multi-channel retailers must develop to increase profitability and to meet their customers' needs.

■ The Research Objectives

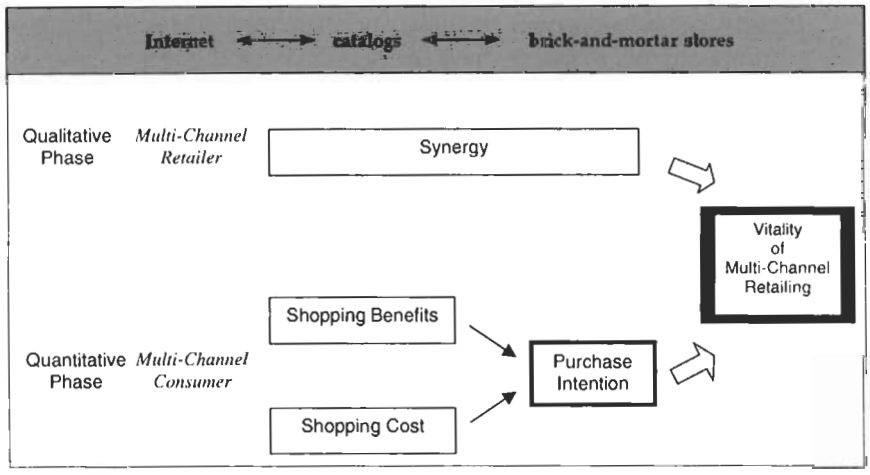
The following objectives were established:

1. To determine whether synergy exists among three multi-channels (bricks-and-mortar store, catalogs and the Internet) and to identify the importance of synergy to the multi-channel retailers.

2. To compare three retail channels in shopping benefits and costs perceived by consumers.
3. To compare three retail channels in terms of the impact of consumers' perceived shopping benefits and costs of each channel on purchase intention.
4. To assess the vitality of a multi-channel retailer based on objectives 1, 2, and 3.

In order to accomplish these objectives, this research utilized both (a) a qualitative analysis of primary data with multi-channel retailers and (b) a quantitative modeling of primary data with multi-channel consumers. Figure 1 illustrates the research model of this study.

FIGURE 1 Research Model



■ Methods

The Qualitative Phase: Multi-Channel Retailer

Retailers who were pursuing all three channels (i.e., bricks-and-mortar stores, catalogs, and Internet) comprised the sample frame. The retailers included a variety of retail formats including chain department stores, specialty department stores, discount stores and specialty chain stores. Twenty-five retailers were contacted via the telephone and asked to complete a survey instrument to determine whether synergy existed among the three channels and to identify the importance of synergy to the retailers. Out of the 25 retailers, 10 agreed to participate in the study.

Respondents were screened according to whether they had extensive experience in at least two channels with the company.

Each retailer was asked to indicate the degree of similarity or difference between various parameters (e.g., company entity, organizational structure, product information) while operating in the three channels (bricks-and-mortar store, catalog, and Internet). Additionally, retailers were asked to indicate the degree of synergy and the importance of synergy in their respective businesses (e.g., marketing strategy, merchandising strategy, financial strategy).

The Quantitative Phase: Multi-Channel Consumer

Focus Group Interviews

A focus group interview was conducted with seven individuals (two male and five female) in order to generate items beyond those identified through the literature review. The group was composed of consumers who had purchased products/services in all the three channels of bricks-and-mortar store, catalog and the Internet. The focus group discussions were tape-recorded and transcribed.

Before data collection, the survey instrument was pretested with consumers (n = 115) who had used all three retail channels. Based on the pretest, items were revised to ensure readability and a logical flow of questions. Content validity was tested by five merchandising professors and two multi-channel retailers. Minor changes were made to the survey instrument based on the comments of the respondents. The survey instrument was transcribed into a script for the purpose of the telephone interview.

Sample and Data Collection

A Computer-Assisted Telephone Interview (CATI) was utilized for data collection. Telephone numbers of 5,000 consumers who had purchased products from the Internet and through catalogs were purchased from a leading marketing firm. Through systematic sampling, every 10^{th} number was selected until 500 surveys were completed. Consumers who were not reached after three calls were replaced randomly from the unselected numbers. At the outset of each call, the interviewer began by introducing the project as a major university's research study. This preface has been known to increase the response rate significantly by distinguishing itself from telemarketing efforts. The respondents were asked questions only after they answered positively a question on shopping via catalogs and/or the Internet.

Measures

The instrument contained the four main variables in the research model: shopping benefits, shopping costs, patronage intention and demographic characteristics.

Shopping Benefits and Costs were measured for each of the three retail channels (i.e., the bricks-and-mortar store, the catalog and the Internet). The statements were adapted from several sources (e.g., Jarvenpaa and Todd, 1997; Korgaonkar and Wolin, 1999). They encompassed several dimensions: product (e.g., reasonable price, variety, quality); convenience (e.g., saving time, easy return of items); and service (e.g., good customer service, security). Shopping benefits were measured on a 5-point rating scale (1 "very unimportant" to 5 "very important"). Shopping costs consisted of money, time and energy spent shopping for products and was measured on a 5-point rating scale (1 "I spend a minimal amount"; 2 "I spend a small amount"; 3 " I spend a reasonable amount"; 4 " I spend more than I should"; 5 "I spend far too much").

Demographic Characteristics included gender, age, income, marital status, living with children and ethnicity.

Purchase Intention also was measured with the intention of purchasing products/services in the bricks-and-mortar store, through the catalog and on the Internet in the next six months.

Data Analyses

Objective 1 was accomplished by content a analysis of the qualitative results from the completed surveys obtained from the multi-channel retailers. Objective 2 was accomplished by univariate analysis of variance (ANOVA) with the three retail channels as independent measures and shopping benefits and costs as dependent measures. Objective 3 was accomplished by regression analyses with demographics, shopping benefits and shopping costs, and purchase intention as the dependent variable. Finally, Objective 4 was accomplished by analyzing the results from the other three objectives.

■ Results

Sample Characteristics

Retailer Characteristics

Ten completed questionnaires were returned for data analysis from the retailer sample. Both upper and middle management personnel completed the survey questionnaire. Their positions included: President, Senior Vice President, Distribution Manager, Senior VP for Cyber, Chief Operating Officer, District Team Leader, Store Manager and Manager of Catalog Expansion. All of the respondents operated in both the bricks-and-mortar and Internet formats, and six of the respondents operated in all three channels.

Consumer Characteristics

A demographic profile of the respondents is summarized in Table 1. Fifty two percent of the respondents were 40 to 59 years of age. More of the respondents were females (65.4%). Fifty percent of the respondents were in the income range of $30,001 - $70,000. Eighty percent were married and/or living with a partner. The majority (93.3%) were Caucasian.

The number of times a consumer purchased products from either the catalog or Internet in the past two years was used as a screening question in order for the respondent to qualify for the survey. As illustrated in Table 2, 43% of the respondents purchased products from the catalog one to five times in the last two years; 41% of the respondents purchased products from the Internet one to five times in the last two years. Ninety five percent of the respondents had Internet access either at home and/or at the office; 62.5% of the respondents had connected to the Internet via dial-up.

Testing Objectives

Testing Objective 1

(To determine whether synergy exists among three multi-channels and to identify the importance of synergy to the multi-channel retailers)

As evidenced by the qualitative analysis (Table 3), retailers' perceive that the following parameters should be the same across various channels: Company Logo, Return Policy, Company Entity, Product Information, Vendor Product Delivery Policy, Payment Terms, Distribution Center, Pricing Strategy, Customer Product Delivery Policy, Vendors, Promotional Strategy, Distribution Methods, Advertising Agency, Transaction Method for Consumer and Communication Strategy. Retailers revealed that merchandise selection parameters, New Merchandise, Size and Color Range and Product Range/Categories across the channels should be neither the same nor different. Additionally, the results indicated that the organizational parameters, i.e., Organizational Structure, Functionaries and Heads of Department should be different across the three channels.

As illustrated in Table 4, all the retailers indicated a high degree of synergy in their existing channels in the following departments: Company/Organizational Structure, Marketing Strategy, Merchandising Strategy, Customer Service, Distribution and Supplier Networks and Financial Strategy. Table 5 suggested that retailers also placed high importance on synergy in their existing channels of operation in the following order: Consumer Service (M:5.22), Company (M:5.11), Distribution and Supplier Networks (M:4.78), Marketing Strategy (M:4.67), Financial Strategy (M:4.67) and Merchandising Strategy (M:4.56).

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF THE CONSUMER RESPONDENTS

Variables	Frequency (N = 500)	Percent
Gender		
Male	173	65.4
Female	327	34.6
Age		
10–19	2	0.4
20–29	52	10.6
30–39	86	17.5
40–49	117	23.8
50–59	137	27.8
60–69	66	13.4
70–79	26	5.3
80–89	6	1.2
Household Income		
Under $10,000	5	1.1
$10,001–$20,000	14	3.1
$20,001–$30,000	43	9.5
$30,001–$40,000	55	12.2
$40,001–$50,000	62	13.7
$50,001–$60,000	53	11.7
$60,001–$70,000	59	13.1
$70,001–$80,000	42	9.3
$80,001–$90,000	27	6.0
$90,001–$100,000	18	4.0
Over $100,000	74	16.4
Marital Status		
Single, never married	60	12.1
Married, living with a partner	398	80.1
Separated, widowed, divorced	39	7.8
Ethnicity		
Caucasian	461	93.3
African-American	11	2.2
Hispanic	3	0.6
Asian	5	1.0
Native-American	5	1.0
Other	9	1.8
No. of Children		
None	271	54.5
1–2	179	36.0
3–4	45	9.1
5 or more	2	.4

Testing Objective 2

(To compare three retail channels in shopping benefits and costs perceived by consumers.) To compare the three channels in terms of Shopping Benefits and Shopping Costs, multivariate analysis of variance

TABLE 2. DESCRIPTIVE STATISTICS OF CATALOG AND INTERNET USAGE

Variables	Frequency (N = 500)	Percent
No. of times product purchased from catalog		
1 to 5 times	215	43.0
6 to 10 times	112	22.4
10 or more times	173	34.6
No. of times product purchased from Internet		
1 to 5 times	207	41.4
6 to 10 times	117	23.4
10 or more times	176	35.2
Internet service at home and/or work		
Work	20	4.0
Home	212	42.7
Both	261	52.5
Neither	4	0.8
Primary Internet computer connection speed		
Dial-up	300	62.5
Cable modem	118	24.6
DSL	35	7.3
Satellite	4	0.8
Network	23	4.8

(MANOVA) was conducted for the 13 items of shopping benefits and the three items of shopping costs.

Shopping Benefits

As illustrated in Table 6, the three channels differed in 12 shopping benefits at the .05 significance level: Access to a Variety of Same Kind of Products, Access to Different Products, Convenience, Availability of National or Designer Brands, Layout, Good Customer Service, Good Quality of Product, Privacy, Security, Saving Time, Up-to-date and Unique Items and Easy Return of Items. Stores had the highest mean benefit scores in Access to a Variety of Same Kind of Products, Access to Different Products, Good Customer Service and Good Quality of Product. The Internet had the highest benefit mean scores in Convenience, Availability of National or Designer Brands, Layout, Privacy, Security, Saving Time, Up-to-date and Unique Items and Ease of Return. The three channels did not differ in reasonable price.

Shopping Costs

Table 7 depicts that the three channels differed in shopping costs factors: Money, Time and Effort at the 0.001 significance level. In terms of Money

TABLE 3. SIMILARITIES AND DIFFERENCES OF MULTI-CHANNEL PARAMETERS

Variables	Mean[1]	SD
Company logo	.22	0.67
Return policy	.78	1.99
Company entity (e.g., name of company, address)	0.89	1.36
Product information	1.00	1.32
Vendor product delivery policy	1.00	1.58
Payment terms	1.33	1.73
Distribution center	1.44	2.19
Pricing strategy (e.g., cost + mark up, amount of margin)	1.56	2.19
Customer product delivery policy	1.56	2.24
Vendors	2.00	1.41
Promotional strategy	2.11	1.69
Distribution methods	2.11	1.96
Advertisement agency	2.11	1.36
Transaction method for consumer (e.g., cash or credit)	2.22	2.49
Communication strategy (e.g., ad copy, direct mailers, newsletters)	2.67	2.00
New merchandise	3.11	2.09
Size and color range	3.22	2.22
Product range/categories	3.44	1.94
Organizational structure	3.56	1.33
Functionaries	3.67	2.06
Heads of department	4.33	1.41

[1]Mean scores are based on a 7-point rating scale (0 "same"; 6 "different").

TABLE 4. DEGREE OF SYNERGY OPERATED BY THE COMPANY

Variables	Mean[1]	Std. Deviation
Consumer service	5.33	0.71
Merchandising strategy	5.11	0.78
Company	5.00	0.71
Distribution and supplier networks	4.89	1.17
Marketing strategy	4.67	1.22
Financial strategy	4.56	1.01

[1]Mean scores are based on a 7-point rating scale (0 "very unimportant"; 6 "very important").

spent, catalog had the highest mean score (m=3.20), followed by the Internet (m=3.07). Store had the lowest mean score (m=2.79). In regards to Time spent, store had the highest mean score (m=3.32), followed by the Internet (m=3.21). Catalog had the lowest mean score (m=2.79). The three channels also differed in Effort spent. Internet had the highest mean score (m=3.22), followed by store (m=3.13). Catalog had the lowest score (m=2.60).

TABLE 5. IMPORTANCE OF SYNERGY IN THE EXISTING CHANNELS

Variables	Mean[1]	Std. Deviation
Consumer service	5.22	0.83
Company	5.11	0.60
Distribution and supplier networks	4.78	0.83
Marketing strategy	4.67	0.87
Financial strategy	4.67	1.22
Merchandising strategy	4.56	1.13

[1]Mean scores are based on a 7-point rating scale (0 "very unimportant"; 6 "very important").

TABLE 6. DIFFERENCE IN SHOPPING BENEFITS[1]: STORE VS. CATALOG VS. INTERNET

Variable	Store	Catalog	Internet	F-statistic	p-value
Access to a variety of same kind of products	4.11	3.85	4.00	16.162	0.000
Access to different products	4.14	3.94	4.08	10.121	0.000
Convenience	4.31	4.30	4.46	7.155	0.001
Availability of national or designer brands	3.08	3.21	3.39	28.78	0.000
Layout	3.46	3.25	4.34	239.243	0.000
Good customer service	4.60	4.50	4.56	3.543	0.029
Good quality of product	4.77	4.70	4.70	5.718	0.003
Reasonable price	4.52	4.52	4.53	0.0286	0.972
Privacy	3.47	3.80	4.35	139.697	0.000
Security	4.14	4.15	4.65	71.154	0.000
Saving time	4.05	4.19	4.33	19.128	0.000
Up-to-date and unique items	3.70	3.85	3.88	12.856	0.000
Easy return of items	4.41	4.55	4.60	15.145	0.000

[1]Mean scores are based on a 5-point rating scale (1 "very unimportant"; 5 "very important)

TABLE 7. DIFFERENCE IN SHOPPING COSTS[1]: STORE VS. CATALOG VS. INTERNET

Variable	Store	Catalog	Internet	F-statistic	p-value
Money spent	2.79	3.20	3.07	26.409	0.000
Time spent	3.32	2.79	3.21	39.148	0.000
Effort spent	3.13	2.60	3.22	51.100	0.000

[1]Mean scores are based on a 5-point rating scale (1 "I spend almost nothing"; 2 "I spend a small amount"; 3 "I spend a reasonable amount"; 4 "I spend more than I should"; 5 "I spend far too much").

Testing Objective 3

(To compare three retail channels in terms of the impact of consumers' perceived shopping benefits and costs of each channel on purchase intention.)

Accomplishing Objective 3 entailed employing factor analyses and regression analyses. Factor analyses were conducted with shopping benefits for each of three channels (store, catalog and the Internet) and with products/services that the respondents intended to buy within the next six months.

Factor Analyses

Data reduction techniques were used to convert the individual variable items into manageable factors. The 13 items measuring Shopping Benefits at each channel level (store, catalog and the Internet) were reduced to factors by principal components factor analysis. The same factor analysis technique was applied to the eight items measuring Purchase Intention at each channel level.

Shopping Benefits–Store

The shopping benefits at the store level were reduced to four factors, which together explained 56.21% of the variance (Table 8). Factor 1

TABLE 8. FACTOR ANALYSIS OF SHOPPING BENEFITS—STORE

Factor Items	α	Eigen Value	% of Variance	Factor Loading
Value/Service	0.65	2.079	15.99	
Good quality of merchandise				0.80
Good customer service				0.76
Easy return				0.55
Reasonable price				0.53
Security/Time Saving	0.61	1.903	14.64	
Privacy				0.82
Security				0.73
Saving time (e.g., no queues, no traffic)				0.48
Assortment	0.57	1.670	12.85	
Availability of national or designer brands				0.75
Up-to-date and unique items				0.64
Layout of the store and the product				0.53
Product Access/Convenience	0.57	1.655	12.73	
Access to a variety of same kind of products				0.76
Access to different products				0.69
Convenience				0.51

(Value/Service) was composed of Good Quality of Merchandise, Good Customer Service, Easy Return and Reasonable Price. Factor 2 (Security/ Time Saving) included Privacy, Security and Saving Time. Factor 3 (Assortment) consisted of Availability of National or Designer Brands, Up-to-date and Unique Items and Layout of the Store and the Product. Factor 4 (Access/Convenience) contained Access to a Variety of Same Kind of Products, Access to Different Products and Convenience.

Shopping Benefits–Catalog

The shopping benefits at the catalog level were reduced to three factors, which together explained 56.16% of the variance (Table 9). Factor 1 (Variety/ Convenience) was composed of seven items: Availability of National or Designer Brands, Up-to-date and Unique Items, Access to Different Products, Access to a Variety of Same Kind of Products, Layout of the Store, Convenience and Saving Time. Factor 2 (Value/Service) included Easy Return, Good Quality of Merchandise, Good Customer Service and Reasonable Price. Factor 3 (Security) was composed of Privacy and Security.

TABLE 9. FACTOR ANALYSIS OF SHOPPING BENEFITS—CATALOG

Factor Items	α	Eigen Value	% of Variance	Factor Loading
Variety/Convenience	0.80	2.975	22.89	
Availability of national or designer brands				0.75
Up-to-date and unique items				0.74
Access to different products				0.69
Access to a variety of same kind of products				0.63
Layout of the catalog				0.57
Convenience				0.49
Saving time				0.46
Value/Service	0.77	2.559	19.69	
Easy return				0.77
Good quality of product				0.76
Good customer service				0.73
Reasonable price				0.69
Security	0.72	1.765	13.58	
Privacy				0.82
Security				0.81

Shopping Benefits–Internet

The shopping benefits for the Internet were reduced to three factors, which together explained 57.96% of the variance (Table 10). Factor 1

(Service/Quality) was composed of five items: Security, Easy Return, Privacy, Good Customer Service and Good Quality of Merchandise. Factor 2 (Variety) contained Availability of National or Designer Brands, Up-to-date and Unique Items, Access to Different Products and Access to a Variety of Same Kind of Products. Factor 3 (Convenience/Price) was composed of Convenience, Saving Time and Reasonable Price. Layout of the Web page and ease of navigation were not included in further analyses due to cross loading.

TABLE 10. FACTOR ANALYSIS OF SHOPPING BENEFITS—INTERNET

Factor Items	α	Eigen Value	% of Variance	Factor Loading
Service/Quality	0.77	2.851	21.93	
Security				0.79
Easy return				0.70
Privacy				0.68
Good customer service				0.62
Good quality of product				0.58
Variety	0.79	2.535	19.50	
Availability of national or designer brands				0.77
Access to a variety of same kind of products				0.76
Up-to-date and unique items				0.74
Access to different products				0.71
Convenience/Price	0.69	2.149	16.53	
Saving time				0.78
Convenience				0.77
Reasonable price				0.53

Purchase Intention–Store

The purchase intention variables at the store level were reduced to two factors, which together explained 49.12% of the variance (Table 11). Factor 1 (Personal Product/Memorabilia) was composed of four items: Health and Beauty Products; Clothing, Jewelry and Shoes or Accessories; Books, Magazines or Greeting Cards; and Collectibles/Arts and Crafts. Factor 2 (Home/Leisure) consisted of four items: Small Electronics; Home Furnishings; Sporting Goods; and Music Tape or CD.

Purchase Intention–Catalog

The purchase intention variables at the catalog level were reduced to two factors, which together explained 50.29% of the variance (Table 12). Factor 1 (Home/Leisure/Health & Beauty) contained four items: Small

TABLE 11. FACTOR ANALYSIS OF PURCHASE INTENTION—STORE

Factor Items	α	Eigen Value	% of Variance	Factor Loading
Personal Product/Memorabilia	0.64	1.965	24.57	
Health and beauty products				0.73
Clothing, jewelry, shoes or accessories				0.72
Books, magazines, greeting cards				0.70
Collectibles/arts and crafts				0.55
Home/Leisure	0.63	1.964	24.56	
Small electronics				0.81
Home furnishings				0.70
Sporting goods				0.66
Music tape or CD				0.54

TABLE 12. FACTOR ANALYSIS OF PURCHASE INTENTION—CATALOG

Factor Items	α	Eigen Value	% of Variance	Factor Loading
Home/Leisure/Health & Beauty	0.67	2.055	25.69	
Small electronics				0.74
Home furnishings				0.72
Sporting goods				0.72
Health and beauty products				0.54
Personal Product/Music/Memorabilia	0.63	1.968	24.61	
Books, magazines, greeting cards				0.83
Collectibles/arts and crafts				0.68
Music tape or CD				0.61
Clothing, jewelry, shoes or accessories				0.49

Electronics; Home Furnishings; Sporting Goods and Health and Beauty Products. Factor 2 (Personal Product/Music/Memorabilia) also had four items: Books, Magazines or Greeting Cards; Collectibles/Arts and Crafts; Music Tape or CD and Clothing, Jewelry and Shoes or Accessories.

Purchase Intention–Internet

For the purchase intention variables at the Internet level, only one factor evolved and thus the solution could not be rotated (Table 13). The items that belonged to this factor were composed of eight items: Small Electronics; Home Furnishings; Sporting Goods; Health and Beauty products; Books, Magazines or Greeting Cards; Collectibles/Arts and Crafts; Music tape or CD and Clothing, Jewelry Shoes or Accessories.

TABLE 13. FACTOR ANALYSIS OF PURCHASE INTENTION—INTERNET

Factor Items	α	Eigen Value	% of Variance	Factor Loading
Internet Purchase	0.79	3.36	42.00	
Small electronics				0.76
Home furnishings				0.70
Music tapes or CDs				0.67
Health and beauty products				0.65
Books, magazines or greeting cards				0.64
Clothing, jewelry, shoes or accessories				0.61
Sporting goods				0.60
Collectibles/arts and crafts				0.53

Regression Analyses

A regression analysis was performed to predict the purchase intention at each of the three channels: store, catalog and Internet. The predictive variables included demographic variables (gender, age, income, marital status and number of children), shopping benefits for each of the three retail channels and the shopping costs (money, time and effort) of each of the three channels. Among the demographic variables, gender was coded as a dummy variable (1= female, and 0= male), marital status was also coded as a dummy variable (1= single, 0= married). The other demographic variables were treated as interval variables.

Predictors of Purchase Intention–Store

There were two purchase intention dependent variables (Personal Products/Memorabilia and Home/Leisure) at the store level (Table 14). In terms of Personal Products/Memorabilia (clothing, jewelry, shoes or accessories, books, magazines or greeting cards and health and beauty products), Gender and Money Spent were statistically significant at the 0.01 and 0.05 level, respectively. Those who were likely to purchase Personal Products/Memorabilia in stores tended to be female and perceived higher levels of shopping costs of money in stores.

In terms of Home/Leisure, Gender and Security/Time Saving were significant predictors at the .05 significance level. Those who buy more Home/Leisure products (small electronics, home furnishings, sporting goods and music tapes or CDs) in stores were more likely to be female and perceived Security/Time saving benefits (privacy, security and saving time) as important.

Predictors of Purchase Intention–Catalog

Two purchase intention variables (Home/Leisure/Health & Beauty and Personal Products/Music/Memorabilia) also existed at the catalog level

TABLE 14. REGRESSION ANALYSIS—STORE

	Beta	
Variables	**Person Product/ Memorabilia**	**Home/Leisure**
Age	0.105	0.020
Household income	0.107	0.073
Children	-0.029	-0.091
Gender	-0.180**	0.141*
Marital status	-0.045	-0.302
Value/Service	0.084	0.068
Security/Time Saving	-0.073	-0.189*
Assortment	0.127	0.101
Product Access/Convenience	0.004	0.023
Money spent	0.158*	0.013
Time spent	-0.066	-0.064
Effort spent	-0.017	0.078
R^2	0.116	0.075
F	2.226*	1.370

*p < 0.05, **p < 0.01

(Table 15). For the Home/Leisure/Health & Beauty (small electronics; home furnishings; sporting goods; and health and beauty products), gender was the only significant predictor ($p < 0.001$). Female consumers rather than male consumers tended to buy Home/Leisure/Health & Beauty products from catalogs. No independent variable was generated as a significant predictor of Personal Products/Music/Memorabilia (books, magazines, greeting cards; collectibles/arts and crafts; music tape or CD; clothing, jewelry, shoes or accessories).

Predictors of Purchase Intention–Internet

For Internet shopping, Gender, Variety, and Money spent were statistically significant at the 0.01 level (Table 16). Those who buy products or services (small electronics; home furnishings; music tape or CD; health and beauty products; books, magazines or greeting cards; clothing, jewelry, shoes or accessories; sporting goods; collectibles/arts and crafts) through the Internet were likely to be female, perceive Variety (Availability of National or Designer Brands, Access to a Variety of Same Kind of Products, Up-to-date and Unique Items, Access to Different Products) as important Internet shopping benefits and perceive spending higher amounts of money on Internet shopping.

Testing Objective 4

(To assess the viability of a multi-channel retailer based on Objectives 1, 2 and 3) The retailers are aware of the importance of synergy within their channel's of operations. The results indicate that the retailers have a high

TABLE 15. REGRESSION ANALYSIS—CATALOG

Variables	*Beta*	
	Home/Leisure/ Health & Beauty	Personal Product/ Music/Memorabilia
Age	0.096	0.027
Household income	0.100	0.081
Children	-0.056	0.004
Gender	-0.241***	0.018
Marital status	-0.026	0.057
Variety/Convenience	0.144	0.138
Value/Service	-0.052	0.003
Security	0.115	0.005
Money	0.084	0.079
Time	0.095	0.083
Effort	0.050	0.147
R^2	0.163	0.112
F	3.591***	2.334**

**p < 0.01, ***p < 0.001

TABLE 16. REGRESSION ANALYSIS—INTERNET

Variables	*Beta*
Age	0.023
Household income	0.045
Children	-0.046
Gender	-0.207**
Marital status	0.020
Service/Quality	-0.046
Variety	0.215**
Convenience/Price	0.028
Money spent	0.211**
Time spent	-0.130
Effort spent	0.060
R^2	0.144
F	3.064***

**p < 0.01, ***p < 0.001

degree of synergy in all their channels of operation and place a high importance on synergy itself.

The consumer's purchase intention is significantly affected by the shopping costs and benefits of the channel irrespective of the type of channel. The consumers are increasingly shopping across channels and expect the retailers to provide them similar benefits, although to a different degree, across all the channels. Hence, it can be concluded that the

retailer with the highest level of synergy and the biggest channel presence will be able to cater successfully to the consumer. The retailer will be able to retain the customer by emphasizing different benefits for different channels. Therefore, multi-channel retailing is a viable proposition for retailers to provide maximum benefits and minimum costs to consumers.

■ Conclusions

With an increasing number of retail formats, current and future consumers have many options in choosing the retail format for shopping. Thus, it is critical to investigate the competitiveness of bricks-and-mortar retailing, catalog retailing and Internet retailing channels to analyze consumers' shopping decisions.

The retailers perceived synergy as an integral part of their business. They attributed importance to synergy and share all the available resources amongst the channels of operation. From the perspectives of consumers, the benefit that they seek from the Internet far surpasses both the store as well as the catalog. A multi-channel retailer with online presence has to strive harder to ensure that the needs of the customers are met. All the three channels differed in the money, time and energy spent. Consumers spent the highest level of money on the catalog, the highest level of time in a store and the highest level of effort over the Internet.

The findings imply that the Internet is slowly emerging as the most preferred channel for shopping, followed by stores. The consumer, however, finds shopping on the Internet very tiresome in terms of effort spent. The online retailer has to strike a balance between offering all positive aspects about shopping online and reducing the amount of effort required by the consumer.

Different combinations of benefits and costs significantly affected the consumer's purchase intention for the three channels. Multi-channel retailers have to strive to enhance the consumer experience by providing the benefits that will satisfy their target consumers and reducing the costs their customers may have to expend.

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