Channel Selection as a Function of Consumers' Shopping Orientations:

A Comparison of the Internet Users in US and Taiwan

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ABSTRACT

Through on-line surveys, information about 1060 American and 909 Taiwanese internet users were collected and analyzed with a view to comparing their channel selection behavior in shopping for a variety of products/services. Individual demographic factors (i.e., gender, age, and education) and their shopping orientations were used as the predictors of their use of the Web, catalogs, and retail stores for product information as well as for product purchase venues. Retail store was still the predominant marketing channel for many product categories; however, the Web emerged as the top choice for a few digital products. Catalog was the lagging behind one though it has existed in marketplace longer than the Web.

Results from multiple regression analyses indicated that individual's acquaintance with a particular channel was a strong predictor of the frequency of the channel usage. Meanwhile, shopping orientations, such as, convenience,

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experiential (pre-purchase inspection) and selective shopping showed significant impacts on the use of the Web and of catalogs respectively.

<u>Keywords</u>: online marketing, shopping orientations, channel utilities, internet consumers, cross-group measurement equivalence.

Introduction

Electronic commerce has gained increasing popularity among consumers as a convenient shopping channel during the past year not only in the US but also in countries and markets outside the US. The internet user population in Taiwan has increased significantly in the past few years as the government and semi-official organizations launched " getting on-line" promotional campaigns to attract more people to sign up for internet accounts. Based on a 2002 NetValue's report, 42.3% of the households on Taiwan have access to internet through various means, there are proximately 5.7 million active internet users. Of them 58% are males and 42% females. In average, each individual spend about 11.4 hours using internet each month. According to the Euromonitor's Internet Retailing reports, total internet sales in Taiwan increased by 2,515% in current value terms over the period of 1998 to 2002. This dramatic rise in on-line purchases was largely due to improving consumer confidence in the security of internet shopping over the past five years (Euromonitor report, 2003).

Several encouraging trends are uncovered with regard to some favorable attitude toward on-line banners and commercial messages among internet users. One third of them said that they clicked at internet advertisements to acquire information about products, and considered it one of the important online activities. These active online banner clickers used internet more frequently than those non-clickers (49.7 times vs. 29.9 times/per month), and their number of times of clicking on ads are 3.2 times of those non-clickers. As to the demographic characteristics of the banner ads. clickers, 53.4% of them are males, 46.6% are females. The majority of them are between the ages of 25 to 34. Occupation-wise, students and labor workers are the top two groups who love to click at internet ads. Moreover, a market segmentation effect on specific target audience has emerged since some the ads. click through rate of some special interest web sites (e.g., financial and

banks, etc.) were higher that those of the major ISP and portal sites. This indicates that those goal-oriented internet users are more likely to click at banner ads. which contained relevant product information.

To take full advantage of the Web as a new marketing channel, we need to better understand how consumers respond to the characteristics of the Web in comparison with traditional marketing channels such as retail stores and catalogs. A great deal of research has been conducted on consumers' pre-purchase information searching and purchase decision-making behavior in retail stores. However, little is known about the factors that may influence consumers in selecting among the three types of channels-- the World Wide Web, catalogs, and retail stores-- for product information and actual purchases. Shopping and buying are two discrete activities for consumers who are willing to spend a significant amount of time and money in searching for and evaluating certain products. Research has been conducted on consumer pre-purchase information searching and purchase decision making, for example, a recent on-line survey reported that the internet sales channel has a strong, direct effect on sales in multiple channels; while consumers may ultimately choose to purchase at a local store or through other means, they are turning to the internet to search for product information and to use it as a basis for their purchase decisions (Channel Intelligence 2003 User Survey). Academic research has become increasingly important since more marketers have established their presence in the virtual marketplace (Thibodeau 1997).

Though Taiwan's E-commerce is still in its early stage in comparison with that of the US, it is a quite promising area. The purposes of this study are two folds: (1) to compare the internet users of US and Taiwan with regard to their selection of the Web, catalog, and retail stores for acquiring product information as well as for actual purchases. And (2) to identify significant predictors of channel selection behavior for both the US and the Taiwanese internet users. It is assumed that individual differences in life style and their previous knowledge and experiences with each channel will influence their selection of different channels for product information and for product purchase. As a result, internet user's demographic background, shopping orientations and their acquaintance of the channel were included in the analyses as predictors of the frequency of their use of the Web.

Literature Review

Shopping Orientations

Shopping orientations relate to general pre-dispositions toward the act of shopping, which have been conceptualized as a specific dimension of lifestyle, and conceptualized on the basis of activities, interests, and opinion statements related to the act of shopping. Shopping orientations are useful in the study of patronage behavior including store loyalty, brand loyalty, in-home shopping, and out-shopping. Efforts have been made to classify consumers into distinct segments. Shopper typologies were also developed for specific product categories. Significant factors underlying these consumer orientations include convenience, recreational orientation, price-consciousness, and concerns for fashion, quality, and brand name. Findings were mixed with regard to the major characteristics of non-store or in-home shoppers. Convenience and recreational orientation were found to relate to catalog shopping (Gehrt, Alpander and Lawson 1992). One broad examination of non-store shoppers found them younger in age, venturesome, and recreational (Korgaonkar, 1981). Another identified them as thrifty innovators, having lower incomes and focusing on time management and price consciousness (Lumpkin, Hawes, and Darden 1986). Vijayasarathy (2003) analyzed 750 survey respondents and revealed that home, economic, and local shopping orientations are related to online shopping intentions; however, product types, based on cost and tangibility, do not have a moderating influence on the relationship between shopping orientations and intentions to shop using the Internet, but do have a direct effect on the latter. Li, Kuo and Russel (1999) surveyed 999 American internet shoppers and reported that education, convenience orientation, experience orientation, channel knowledge, perceived distribution utility, and perceived accessibility are robust predictors of online buying status (frequent online buyer, occasional online buyer, or non-online buyer) of Internet users.

In our study, the researchers constructed scales of four shopping orientations－ *convenience*-shopper, *selective* shopper, *recreational* shopper, and *experiential* shopper in both surveys. *Convenience* shoppers don't want to spend much time on shopping and they wished to be able to shop at any time of the day to suit their personal schedule. S*elective shoppers* loved to make selections from a wide assortment of products. They would not feel comfortable if the purchased goods were not selected from a wide selection. *Recreational shoppers* considered shopping itself an enjoyable and entertaining experience and they wouldn't mind shopping around without making any purchase. E*xperiential*

shoppers were cautious buyers who wanted to carefully inspect and try the products before actual purchase. It is expected that some of the shopping orientations may have either positive or negative impacts on the frequency of consumer's use of the three marketing channels.

Channel Experience

Marketing activities occur through various channels, Stewart, Frazier and Martin (1996) incorporated marketing functions into two distinct types of channels: communication channels and distribution channels. Communication channels enable the flow and exchange of various forms of information between buyers and sellers; whereas, distribution channels provide a mechanism through which a product or service can be selected, purchased/ordered, and received by a segment of the firm's customers (Stewart, Frazier and Martin, 1996, p.190). However, other scholars have contended that these channels frequently overlap in the context of consumer marketing though conceptually distinct (Peterson, et. Al., 1997). In the case of the Web, it may serve the dual function of communication and distribution channels for intangible or digital products.

Channel experience can be conceived as a three-dimension construct. First, there is an accessibility issue - whether the consumer has the physical means to access the Web, catalogs and retail stores. For instance, some consumers may not have a personal computer or an internet account to use the Web while others may not buy or receive catalogs. Second, channel experience includes channel acquaintance, which refers to the level of consumer knowledge of the Web, catalogs and retail stores. Third, channel experience also consists of the consumer usage of the Web, catalogs and retail stores. For instance, some consumers may use the Web often while others only seldom. Different usage patterns are likely to exist for catalogs and retail stores as well.

Two costs associated with using a marketing channel are the access and the effort involved. Access to the Web needs a computer with an internet connection and some knowledge of how to use the computer. In addition to access, knowledge about and experiences with the channel are likely to be important factors for a consumer in selecting a either communication or a distribution channel. If a consumer knows well where to go to search for desired product information, and where to shop for the best buys, he or she is likely to make use of such communication and distribution channels frequently. As a result, consumer's channel knowledge was included in the multiple regression analyses as predictors of his/her inclinations in selecting online shopping channels.

In brief, this study aims at comparing the internet users' channel selection behavior in shopping for a variety of products/services in Taiwan and the US markets. Individual demographic factors (i.e., gender, age, and education) and consumer shopping orientations were used as the predictors of the use of three channels--the Web, catalogs, and retail stores--for product information and for product purchase.

Data Collection

The US Sample

Data for this study were collected by CCi (Connect Consultant International, Inc.) Research, an Austin, Texas company specializing in online marketing research. A survey was conducted on a private Web site administered by CCi Research. A sample of respondents, drawn from CCi Research's Cyberleague™ panel of 50,000 internet users, was invited by e-mail to participate in the twenty-minute survey. The sample was selected from the panel so that its respondents approximated the demographic composition of the population of Internet users as the survey was conducted. The survey lasted less than three weeks. Two follow-up e-mail reminders were sent, at five-day intervals during the survey period, to individuals who had not yet responded, resulting in an overall response rate of 65%. From all completed surveys, cases were selected on a random basis to build a sample that approximated the current composition of internet users. The sample for analysis included 1060 respondents. A proprietary online survey program was used for data collection and preparation. When the survey was completed, data were output into an SPSS system file for analysis. Routine quality control procedures were followed and no errors were found in data preparation.

The Taiwanese Sample

A semi-official ISP SeedNET in Taiwan offers to collaborate with the research group in the data collection. Unlike most current on-line surveys that have little control over who will visit the Web site and fill out the questionnaire, the respondents of this study were randomly selected from a pool of internet users to minimize the self-selective bias of the survey respondents. The selected users were sent e-mails three times to invite them to participate in the on-line survey. Decent prizes and gifts were promised as the incentive to increase the response rate of the survey. Each selected survey respondent was assigned a unique computer generated entry password to access the web cite for the survey, each

password could be used only once. That is, the password became invalid after one entry to the designated web site. This device was used to minimize the bias resulting from the fact that some respondents may fill out the questionnaires several times. In a six-week-period of on-line survey, over one thousand respondents participated, and 909 completed and clean questionnaires constituted the final sample size after a careful screening procedure to exclude incomplete and problematic questionnaires.

Summaries of the demographic composition of the two sample are presented in Table 1 and Table 2. Based on the composition of the respondents' age level, the Taiwanese sample has a greater percentage of younger people (92%) than the American sample (59%). The American sample contains a slightly greater percentage of females (42%) than the Taiwanese sample (32%). Apparently, the different composition in demographics may indicate that Taiwan is in an early developing stage of internet usage because the population of online users is a highly homogeneous group of high educated young generation.

Table 1: Summary of Demographic Composition of the US Sample

Gender   (N=1060)

	Male	Female
	57.9%	42.1%

Age

Under 21	19.0%
21 to 29	31.2%
30 to 39	24.9%
40 to 49	17.2%
50 to 56	6.0%
over 65	1.7%

Education

Less than High School	6.7%
High School Graduate	15.1%
Some College	36.9%
College Graduate	22.9%
Some Graduate School	6.5%
Graduate Degree	11.6%

Table 2: Summary of Demographic Composition of the Taiwan Sample

Gender　(N=909)

	Male	Female
	67.9%	32.1%

Age

Under 21	18.0%
21 to 29	52.5%
30 to 39	21.5%
40 to 49	5.8%
50 to 56	0.6%
over 65	0.1%

Education

Junior Middle School Graduate	4.8%
High School Graduate	15.4%
Some College & College Degree	70.2%
Some Graduate School & With Graduate Degree	9.6%

Data Analyses and Results

The authors first summarized percentages of channel selection of each sample to show the differences in such selection behavior. Then multiple regression analyses were conducted to test the relative influence of different predictors of the use of each marketing channel. Before regression analyses were conducted, multi-sample confirmatory factor analyses were conducted to assure that measurement instruments of the shopping orientations were compatible across-samples. After the measurement compatibility was achieved, composite index for each shopping orientation was constructed and included in the multiple regression. With this screening process of compatible measures for the shopping orientations, the authors tried to minimize the possible contamination of incompatible measurement instruments.

Channel selection across four types of products

Based on Peterson (1997)'s product typology, the researchers chose the following four types of products — book (frequent/digital), software (infrequent/digital), wine (frequent/tangible), and car (infrequent/tangible). Respondents were asked if they wanted

to find information about or to buy such product, which of the three channels, namely, retail stores, catalogs, and the Web, they would most likely to choose. Table 3 summarizes their use of three channels for product information and purchases in general. Table 4 summarizes the information channel selection of Taiwanese and American online shoppers for specific product types. Apparently, a greater percentage of Americans tended to search for relevant product information and to make actual purchases on the Web than Taiwanese consumers. 77 per cent of Taiwanese respondents never purchased anything on the Web during the past three months and only about 27% of American respondents said they didn't make purchases from the Web. Such significant differences in the inclination of using the web as a shopping channel clearly suggested that the web-site market on Taiwan is still at its early stage in relation to that of the U.S.

According to Table 4, except for computer software, the Web was the top choice of product information for books, wines, and automobiles for American respondents, followed by retail store and catalog. As for Taiwanese respondents, the Web was their first selected source for getting information about computer software, but they preferred visiting stores to acquire information about books, wines, and cars. Catalog was the least chosen shopping channel across all four product types in both the US and Taiwan.

Table 3: Channel Selection For Information about Four Products－US vs. Taiwan

In the last three months, how many times did you use the three channels to get Product Information and to make purchases?						
Information search	**U S**			**Taiwan**		
	Web	**Catalog**	**Store**	**Web**	**Catalog**	**Store**
Never	2.5%	16.7%	9.9%	12.0%	26.3%	13.3%
1 to 3 times	11.3%	36.1%	31.4%	24.5%	30.8%	17.7%
4 to 6 times	13.4%	20.9%	21.9%	15.6%	13.8%	18.4%
7 to 10 times	16.4%	12.8%	15.9%	16.3%	14.4%	18.8%
11 to 20 times	15.9%	6.7%	8.6%	11.3%	8.4%	13.8%
more than 20 times	40.4%	6.7%	12.5%	20.2%	6.4%	18.1%
Product purchase	**U S**			**Taiwan**		
	Web	**Catalog**	**Store**	**Web**	**Catalog**	**Store**
Never	26.8%	37.3%	6.1%	77.0%	68.2%	13.0%
1 to 3 times	34.6%	42.2%	28.2%	17.4%	22.4%	21.7%
4 to 6 times	18.8%	13.5%	23.7%	3.4%	5.5%	17.4%
7 to 10 times	8.2%	4.2%	15.6%	1.1%	2.0%	15.7%
11 to 20 times	6.0%	1.4%	11.2%	1.0%	1.3%	12.1%
more than 20 times	5.6%	1.3%	15.2%	0.1%	0.5%	20.1%

Table 4: The Most Selected Communication Channel for Four Products
－US vs. Taiwan

	Retail	Catalogs	The Web
If you want to find information about a book today	US: 27.9% TW: 61.0%	US:1.2% TW:4.7%	US: 70.9% TW: 34.1%
If you want to information about a computer software today	US: 49.1% TW: 34.7%	US: 3.1% TW: 5.7%	US: 47.9% TW:59.6%
If you want to find information about wines today	US: 22.1% TW:40.8%	US: 4.7% TW:27.6%	US: 73.2% TW:31.6%
If you want to find information about cars today	US: 38.9% TW:38.6%	US: 5.7% TW: 23.5%	US: 55.4% TW:37.8%

Predicting Channel Selection Behavior by Multiple Predictors

Multiple indicators were used in both surveys in measuring respondents' shopping orientations. In order to assure cross-cultural construct equivalence, multiple group confirmatory factor analysis was conducted in examining the cross-cultural compatibility of these measurement items on shopping orientations. Unstandardized factor loadings resulted from the confirmatory factor analysis，goodness of fit indices are summarized in Table 5. The resulting goodness-of-fit indices (GFI=.94, AGFI=.92, CFI=.96.) indicates that the fit of the multi-sample measurement model was a decent one. Reliability coefficients （Cronbach alpha）of each shopping orientation were also provided.

Table 5: Item Description and Reliability of Measurement Scales

Scale Item Descriptions	Factor Loading
Recreational shopping Cronbach alpha: .80	
1. I never feel bored when I go shopping.	1.00
2. I like to shop around and look at displays.	0.45
3. Window-shopping is a pleasant experience.	0.71
Experiential shopping (Pre-purchase inspection) **Cronbach alpha: .67**	
1. I like to see and touch products before I buy	1.00
2. I like to try it before I buy a product	1.24
3. I hate buying things without seeing what I get	0.91
Selective shopping Cronbach alpha: .80	
1. I like to choose from a wide assortment of products	1.00
2. It's important for me to have a wide selection	1.29
Convenience shopping Cronbach alpha: .68	
1. I want to be able to shop at any time of the day	1.00
2. I hate to wait in long lines for checking out goods	1.36
3. Saving time while shopping is very important	1.00

Notes: The cross-sample compatibility of the indicators
Has been examined and confirmed in a multi-
Sample confirmatory factor analysis.
The factor loading are un-standardized estimates.
The goodness-of-fit indices are as follows:
GFI=.94, AGFI=.92, CFI=.96.

In order to examine the relative influences of various explanatory variables on the use of each channel, multiple regression analyses were conducted for all three channels. The dependent variables were the frequency of using each channel for product information and for actual purchase. Three types of predictors, or explanatory variables were included in the analyses: (1) demographic variables－gender, age, education; (2) shopping orientations －convenience shopper, selective shopper (need wide selection), recreational shopper

(enjoy shopping experience), and experiential shopper (care for pre-purchase inspection); (3) channel acquaintance－the respondents know where to shop and to buy. Based on a preliminary correlation analysis, none of the chosen predictors are highly correlated, hence, multicollinearity will not be a problem to jeopardize the results of the multiple regression analysis.

Factors that predict frequency of shopping on the web

The two dependent variables included in the following analyses are "Frequency of product information search on the web in the past 3 months," and "Frequency of product purchase on the web in the past 3 months."

Table 6 and Table 7 summarized the beta coefficients and associated significance level for the use of Web. For the US sample, three of the four shopping orientations, namely, selective, experiential, convenience, and the two channel acquaintance variables were all significant predictors of the use of web as an communication channel. The model was able to explain more than 23% of the variance. But none of the three demographic variables were significant predictors. In contrast, in the Taiwan sample, only one channel acquaintance variable and age level emerged as significant predictors of the use of the Web. Besides, the explained variance in the dependent variable was very small (.07%).

Results from Table 6 indicated that those American respondents who cared for a wide selection and for convenience tended to search for product information on the Web, but those who valued pre-purchase inspection highly tended to stay away from the Web. In both samples, channel acquaintance was a positive contributor of frequent use of the Web. Taiwanese respondents who were younger in age were more likely to search for product information on the Web.

As for making purchases on the Web, respondents who had good knowledge about where to buy on the Web contributed positively to E-commerce in both samples. Consumers who cared for convenience, whether they are Americans or Taiwanese, tended to make purchases on the Web more frequently. Likewise, both American and Taiwanese respondents who preferred to inspect before purchasing were less likely to spend money on the Web. Age had a significant effect on on-line purchase. Older Americans made purchases more frequently than the younger ones. Beside age, no other demographics showed any effect on Web purchase in both samples. The included predictors accounted for 24 percent of the variance in the dependent variable for the US sample, but only four

per cent of the variance in Web purchase was explained for the Taiwan sample.

Table 6: Predicting the Frequency of Product Information Search on the Web by the US And Taiwanese Internet Users

Searching Information on the Web	U S		Taiwan	
Predicting Variables	**Beta & Sig.**		**Beta & Sig.**	
	R=.491, Adjusted R-square=.234		R=.284, Adjusted R-square=.071	
Selective shopping	.084	.005.	.062	n.s.
Experiential shopping	- .084	.005	- .058	n.s.
Convenience shopping	.093	.001	.075	.06
Recreational shopping	- .020	n.s.	- .014	n.s.
Knowing which web to shop	.267	.000	.159	.002
Knowing which web to buy	.186	.000	.079	n.s.
Gender	- .050	n.s.	- .038	n.s.
Age level	.020	n.s.	- .087	.012
Educational level	- .005	n.s.	.061	.075

Notes: Enter method was used in the regression.

**Table 7: Predicting the Frequency of Product Purchase on the Web
By US And Taiwanese Internet Users**

Making Purchases on the Web	U S		Taiwan	
Predicting Variables	**Beta & Sig.**		**Beta & Sig.**	
	R=.497, Adjusted R-square=.240		R=.233, Adjusted R-square=.044	
Selective shopping	.015	n.s.	- .047	n.s.
Experiential shopping	- .225	.000	- .083	.063
Convenience shopping	.110	.000	.135	.001
Recreational shopping	.045	n.s.	- .022	n.s.
Knowing which web to shop	.104	.008	- .008	n.s.
Knowing which web to buy	.288	.000	.160	.002
Gender	- .047	n.s.	- .068	.050
Age level	.066	.017	.033	n.s.
Educational level	- .025	n.s.	.025	n.s.

Notes: Enter method was used in the regression.

Factors that predict frequency of shopping on catalog

The two dependent variables included in the following analyses are "Frequency of product information search on catalog in the past 3 months," and "Frequency of product purchase on catalog in the past 3 months."

As for the use of catalogs for product information, only the two variables about channel acquaintance emerged as significant predictors for the American sample, indicating that those who were well acquainted with catalogs tended to search for relevant product information from the catalog. About 21 per cent of the variance in the dependent variable were accounted for by the predictors in the American sample. As for the Taiwanese respondents, concern for convenience and one channel acquaintance variable contributed positively to the use of catalog for product information. Meanwhile, age

showed a positive effect as well. Older respondents were more likely to search for product information in catalogs than the younger ones. Nevertheless, the explained variance was quite small, merely six per cent, suggesting that the regression equation may have left out important explanatory variables.

Table 8: Predicting the Frequency of Product Information Search on Catalog By US And Taiwanese Internet Users

Searching Information on Catalogs	U S		Taiwan	
Predicting Variables	**Beta & Sig.**		**Beta & Sig.**	
	R=.469, Adjusted R-square=.213		R=.264, Adjusted R-square=.060	
Selective shopping	- .013	n.s.	.027	n.s.
Experiential shopping	- .020	n.s.	- .020	n.s.
Convenience shopping	- .024	n.s.	.096	.018
Recreational shopping	.017	n.s.	- .025	n.s.
Knowing which catalog to shop	.315	.000	.094	.002
Knowing which catalog to buy	.166	.001	.102	n.s.
Gender	- .077	.006	- .070	n.s.
Age level	- .044	n.s.	.109	.002
Educational level	.033	n.s.	.012	n.s.

Notes: Enter method was used in the regression.

Table 9: Predicting the Frequency of Product Purchase on Catalog
By US And Taiwanese Internet Users

Making Purchases on Catalogs	U S		Taiwan	
Predicting Variables	**Beta & Sig.**		**Beta & Sig.**	
	R=.414, Adjusted R-square=.164		R=.259, Adjusted R-square=.057	
Selective shopping	- .003	n.s.	.018	n.s.
Experiential shopping	- .026	n.s.	- .103	.020
Convenience shopping	.005	n.s.	.070	.083
Recreational shopping	.000	n.s.	- .030	n.s.
Knowing which catalog to shop	.201	.000.	- .074	n.s.
Knowing which catalog to buy	.227	.000.	.262	.000
Gender	.033	n.s.	.047	n.s.
Age level	.014	n.s.	- .099	.004
Educational level	.003	n.s.	- .046	n.s.

Notes: Enter method was used in the regression.

Factors that predict frequency of shopping in retail stores

The two dependent variables included in the following analyses are "Frequency of product information search in retail stores in the past 3 months," and "Frequency of product purchase in retail stores in the past 3 months."

As for retail stores, no significant predictor was found for the Taiwan sample. That is, not a single explanatory variable was able to explain the reasons why Taiwanese consumers choose retail stores for product information and to make purchases. Table 10 presents only the results from analyzing the survey data from the US sample. In contrast, those American consumers who considered shopping itself as a recreation and those who were well acquainted with stores tended to visit stores more frequently for product information as well as for product purchases. Nevertheless, those who valued convenience

highly were less likely to shop at stores. Gender difference emerged as a significant predictor such that males rather than females were found to be more active shoppers in stores, however, this finding seemed to be counter-intuitive. The variances explained in the two store-related dependent variables were smaller in size as compared with that of the other two channels.

Table 10: Predicting the Frequency of Product Information Search and Product Purchase in Retail Stores by US Internet Users

Selection of Retail Stores	Info. Search		Purchase	
Predicting Variables	**Beta & Sig.**		**Beta & Sig.**	
	R=.346, Adjusted R-Square=.112		R=.291, Adjusted R-Square=.077	
Selective shopping	.033	n.s.	.042	n.s.
Experiential shopping	.048	n.s.	.044	n.s.
Convenience shopping	-.028	n.s.	-.088	.005
Recreational shopping	.074	.021	.000	n.s.
Knowing which store to shop	.142	.000	.081	.087
Knowing which store to buy	.173	.000	.187	.000
Gender	-.106	.000	-.080	.008
Age level	-.033	n.s.	-.028	n.s.
Educational level	.031	n.s.	-.031	n.s.

Notes: Enter method was used in the regression.

Conclusions and Discussions

Electronic commerce is still in its early stage of development in Taiwan in comparison with that in the US, however, as indicated by the demographic compositions of the internet users as well as the inclination of web usage for shopping across the two samples. Cross-cultural construct equivalence has been a long time concern in many cross-cultural comparative studies, through using the multi-sample confirmatory factor analysis the authors attempted to achieve measurement compatibility, which is a starting point of

achieving cross-cultural construct equivalence. The result may not be very satisfactory nevertheless the intention was decent. This study has yielded findings indicating that the Web is a promising marketing communication channel across a wide variety of product and service categories. For some digital goods, such as computer software and books, the Web even surpassed the traditional retail stores as the most selected channel for relevant information. When it comes to actual purchase, retail stores still predominate across most of the product categories.

In an attempt to identify significant predictors of usage of each of the three channels －the web, catalog, stores--for product information and purchase, the researchers found that channel knowledge and some shopping orientations emerged as significant contributors of the use of the Web and catalogs. In brief, an individual with better acquaintance with a particular channel, be it the Web or catalog, he or she was more likely to make use of that channel. Convenience showed a positive relationship with the frequency of surfing online and making purchase on the Web; but shoppers who valued recreational experiences in shopping preferred visiting stores in person to surfing on the Web. This finding may suggest that, after all, the virtual online shopping experiences cannot entirely substitute the real-world shopping experiences.

Differences were observed between the Americans and Taiwanese with regard to their selection of shopping channels. Such differences in findings are summarized as follows: (1) Shopping orientations were significant predictors of Web shopping in the US but not in Taiwan; (2) Age was a significant factor in influencing Web search and catalog usage among Taiwanese consumers but not for Americans. (3) Greater percentage of variances in the dependent variables were accounted for in the US sample than in the Taiwanese sample, suggesting that the researchers need to search for other significant variables in order to explain the channel selection behavior of the internet shoppers on Taiwan. (4) No significant predictors were found in explaining the store shopping behavior on Taiwan, in contrast, channel acquaintance, gender, and two shopping orientations, namely, convenience, and recreational shopping, showed significant effect on American consumers' shopping in stores.

These observed differences, especially on the web-shopping behavior, could be attributed to the fact that Taiwan was still in a relatively early and less developed stage of E-commerce in comparison with that of the US. In a less developed internet market such as Taiwan, the infra-structures are probably not well developed either, therefore, consumers

who were concerned about online transaction security may be more hesitant to make purchases online. In addition, Taiwan is a densely populated island, whose geographical features are very different from those of the US. As a result, stores are almost everywhere in populated areas, people need not travel far to go to stores. Such an easy access to retail stores probably has influenced Taiwan consumers' shopping habits to a great extent. With all the differences, however, we did find something in common, for example, channel acquaintance and concern for convenience were significant explanatory variables of channel usage for the Web and catalog in both samples.

This study is only a preliminary analysis, some other factors, such as individual's level of involvement, perception of each channel's attributes and utilities were not brought in to explain the channel selection behavior. Another possible limitation of this study is that the survey respondents are internet users who is composed of a younger population generally with higher educational levels. This group of people generally holds a more positive attitude toward the web, and may demonstrate a different shopping style than the consumers in general. Greater emphasis was given to the web as a shopping channel in relation to the other two channels－catalogues and stores. As a result, findings of this study may not be generable to the general consumers as a whole. It was the authors' wish to proceed from the angle of internet market, further analysis needs to be conducted to address some other issues that were left out in this study.

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消費者購物傾向對其選擇網際網路、型錄、與零售商店做為資訊與購買管道之影響—台灣與美國之比較

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《摘要》

本研究試圖探討美國和台灣的消費者，在兩個不同發展階段的網路消費市場的網路購買行為，並檢視有那些因素可能影響他們對於商品資訊獲取和商品購買管道之選擇。研究者納入消費者的人口變項，與消費者生活型態相關的購物傾向作為主要的預測變數，受訪者對各種購物管道的熟悉程度，作為預測變項，由此檢測以上的因素對他們選擇使用網際網路與傳統管道中的型錄、和零售商店時，會有怎樣的影響。本研究分別與美國的網路市調公司和台灣的 SeedNet 數位電信公司合作，經由線上調查訪問了 1,060 位美國網友和 909 位台灣網友。從分析結果顯示：台灣和美國的網友人口結構確有差異，美國上網人口的平均年齡較長而且使用網路作為購物管道頻次較高，顯示出美國網路市場的發展階段比台灣成熟。從分析結果顯示：無論美、台消費者個人對於各購買管道的熟悉程度最能預測其使用該管道的頻率；另外，除了便利性之外，其他的購物傾向，例如，注重購買前檢視、和喜外精挑細選，對台灣網友選擇網路購物的影響力不明顯，對美國網友確有相當的預測力。

關鍵詞：線上行銷、購物傾向、管道功效、網路消費者、跨組測量工具對等