

Internet Purchase Behaviour Amongst Malaysian Urban Consumers: An Ethnic Comparison

Md Nor Othman, University of Malaya
Ong Fon Sim, University of Malaya
Cheah Ker Huei, University of Malaya

Abstract

This study seeks to examine Internet purchase behaviour of urban Malaysians. The objectives include (i) profiling the demographic characteristics of Internet users and Internet buyers, (ii) gaining an insight into the perceptions of buyers with respect to factors that motivate as well as factors that hinder Internet shopping, and (iii) an ethnic comparison of shopping behaviour of online shoppers. The methodology used is the survey method using convenience sampling method of Mall intercept. A total of 300 responses were obtained. About two thirds of the Internet shoppers were male. The Malays and Chinese made up about 85% of the Internet shoppers. Almost half were 30 years or older and more than half were single. Factors that motivated Internet purchase were significantly different among the three ethnic groups. They were: shopping can take place any time of the day, hassle free, better customer service, and not having to worry about buying online. Factors that hindered purchase were: slow download time, higher price due to shipping charges, and loss of privacy.

Introduction

With the impressive increase in the rate of growth in personal computer penetration es-

timated at 18%, Malaysia is expected to lead the Internet growth in Asia. It is projected that by year 2006 subscribers to the Internet will increase by four folds from the present 1.8 million (The New Straits Times, 2001). It is anticipated that the Internet retailing sales will increase in tandem with the increase in Internet subscription rate. Japan is forecasted to spearhead the growth in Internet sales with a growth rate of 68% while Asia Pacific is projected to achieve a growth rate of 53.4% (Gartner G2, 2001). Malaysia together with countries such as Japan, China, India, and Thailand will also experience a rise in Internet retailing. Thus, it is most timely to examine the purchase behaviour of online shoppers. Moreover, as studies on Internet shopping have been largely concentrated in the U.S. and other developed nations, research in the behaviour of Internet shoppers in Malaysia should be given its due attention. From the perspective of policy makers, an understanding of shopping behaviour among online shoppers and factors that hinder the adoption of online shopping is useful for policy decision-making.

Objectives

The main focus of this paper is to examine the shopping behaviour of online shoppers. Specific objectives are:

1. To profile the demographic characteris-

- tics of Internet users and Internet buyers as well as potential buyers;
2. To examine purchase behaviour of online buyers;
 3. To gain an insight into the perceptions of buyers with respect to factors that motivate as well as factors that hinder Internet Shopping; and;
 4. To conduct an ethnic comparison of shopping behaviour of online shoppers.

Background of the Study

According to Salste (1996, p.4), Internet shopping is defined as a way to buy online without attending to a store. The customers can either buy via the Internet, or search for product information online and then place their orders off line by telephone, fax, or regular mail. For the purpose of this study, the definition of Internet shopping encompasses purchases via the Net or World Wide Web, but not including online information search. While orders must be placed online, delivery can take place offline. The term Internet shopping is used interchangeably with online buying. Internet buyers are those who have already purchased products or services over the net at least once (Salste, 1996). The term Internet shoppers carry the same definition as online shoppers. This distinction is important because Internet users may not be buyers. Internet users who are not buyers may be potential buyers so long as they express their intentions to purchase. Otherwise, they remain Internet Users. Phau and Sui (2000) examine Internet shopping behaviour in Singapore by comparing the Internet buying behaviour of potential shoppers and non-Internet shoppers. Their findings show that product characteristics significantly influence consumer choice between a retail store and online shopping. Ghani et al. (2001) profile the demographic characteristics

of online shoppers. Factors influencing online shopping are also examined. Many of the demographic variables are examined in Internet shopping behavior research but ethnicity and its relationship to Internet shopping has not been examined. This gap is the main contribution of this paper in which a comparative study of online shopping behavior of the three major races in Malaysia is conducted.

Besides profiling online shoppers, studies on reasons for online purchases are common (e.g. Strauss and Frost, 1999; Ward and Lee, 2000). Reasons include: ease of making price comparisons, availability of information, convenience in transaction time (could take place any time of the day), rapid delivery, and convenience which refers more to the hassle free type of shopping versus the conventional shopping that entails one to travel, walk, search, wait, and carry. Product assortment, better customer service and "fun" in online shopping were other reasons for purchase.

Past research has also included reasons for not buying online. Findings show that security concern is the main reason, even in Western countries such as Germany. Uncertainty about product quality (Ward and Lee, 2000), difficulty faced in searching for information (Ward and Lee, 2000), loss of privacy and misuse of personal data (Pavitt, 1997), slow download time (Wilson, 2000), delivery problems (Burton, 2000) and preference for physical retail shopping are reasons for not shopping online.

Methodology

This study employs the method of primary data collection using a close-ended questionnaire as the research instrument. Mall intercept technique was used. The selection of the shopping malls was based on their location as well as their popularity with the population in the Klang Valley: One Utama, Aktif Lifestyle,

Suria KLCC, Sogo Shopping Complex, Mid Valley Mega Mall and Sunway Pyramid. A sample size of 300 was drawn from these six shopping malls, with 50 respondents drawn from each shopping mall. In this method of non-probability sampling, care was taken to preserve the characteristics of a population sample such that it represents the desire of the investigator (Zikmund, 1997). Therefore, only Internet users qualified as respondents. Care was taken to ensure that sufficient number of respondents was drawn from the three major ethnic groups as well as males and females. In addition, respondents from different age groups were considered. In the final selection of sample, of the 300 respondents, 50% of them were males while the other 50% were females. 120 Malays and Chinese were drawn respectively while the Indians made up a total of 60. For the different age groups, 90 were less than 20 years, 120 were between 20-29 years of age while 90 were aged 30 and above. In order to improve the response rate and to ensure that the respondents were competent to participate in the survey, the questionnaire was translated into the Malay and the Chinese language using back-to-back translation method so that the respondents could choose the language they were conversant in.

The Research Instrument

The questionnaire was divided into four parts. Part I was designed to collect information on Internet usage behavior of respondents. The frequency of Internet access by respondents was asked using an open-ended response format, which is preferred over close-ended response format since the range of response was not known (Zikmund, 1997). In addition, questions on the purpose for using the Internet, from where they accessed the Internet as well as purchases of products

over the Internet were asked. In this part, Internet buyers were distinguished from non-buyers. For non-buyers, their intention to purchase through the Internet was investigated.

Respondents who were Internet buyers would proceed to Part II of the questionnaire, which carried questions on purchase behaviour. Their history of purchase behaviour was asked alongside questions about the types of product or service purchased and the amount spent on the Internet purchase. Only Internet buyers were analysed in detailed about their purchase behavior. Non-buyers who expressed their intention to purchase via the net would be classified as potential buyers and their demographic profile was examined. Those who remained as Internet users were included in analysis.

Part III of the questionnaire required respondents to rate their extent of agreement or disagreement towards various statements on the factors that motivated or prevented them from purchasing products/services online. The agree/disagree statements were measured using a 7-point Likert-type scale, ranging from (1) "strongly disagree" to (7) "strongly agree". Majority of the statements were adopted from Strauss and Frost (1999) while some were derived from other sources (e.g. Pastore, 2001; Salste, 1996; Ward, 2000; Rowley, 1996). In addition, respondents were asked to rate the characteristics of products that were bought online. The characteristics included were: price (whether expensive/inexpensive); product involvement (infrequently purchased/frequently purchased); tangible/intangible; and high differentiation/low differentiation.

Part IV of the questionnaire comprised questions pertaining to the demographic profile of respondents. These questions were socio-economic questions commonly asked. Information required included gender, race, income, education attainment, occupation, and marital status.

Research Findings and Discussions

Table 1 shows the demographic profile of respondents. From a total of 300 sets of ques-

Table 1:
Demographic Profile of Respondents

Demographic Variables	Number	Percentage
Gender		
Male	152	50.7
Female	148	49.3
Race		
Malay	121	40.9
Chinese	119	40.2
Indians	56	18.9
Age		
< 20 years	42	14.0
20-29 years	181	60.3
30 years and above	77	25.7
Marital Status		
Single	220	73.3
Married	80	26.7
Education		
STPM and below	56	18.7
College Diploma	57	19.0
University	187	62.3
Occupation		
Student	131	43.7
Government employees	22	7.3
Private sector employees	112	37.4
Own Business	19	6.3
Others	16	5.3
Monthly Personal Income		
< RM 1,000	136	45.4
RM1,000 – 2,999	94	31.3
RM3,000 and above	70	23.2

* Missing values

tionnaires administered, almost an equal number of males and females were obtained. The sample was made up of 40.9% Malays, 40.2% Chinese and 12.9% Indians, which closely matched the desired number from each ethnic group. The majority was single (73.3%) and within the age group of 20-29 years old. Respondents aged 30 years and above made up 25.7%. About 62% had tertiary education while the lowest level of educational achievement was at pre-university level or below. This indicated the nature of urban, young, population, which is also consistent with the characteristics of Internet buyers or users (PIKOM, 2000). Older adults had the tendency to experience techno-stress compared to the younger age groups (Elder, Gardner and Ruth, 1987). In terms of occupation, almost half of them were students. Corresponding to this, their monthly personal income was low.

Demographic Profile of Internet Buyers

Of the total sample of 300 respondents who were Internet users, only 44 of them were buyers. Table 2 shows the demographic characteristics of Internet buyers.

From the demographic variables that were tested, four emerged as significant: gender, age, marital status, and personal monthly income. Internet buyers tended to be male, aged 30 years and above, single, and with monthly income of RM3,000 and above. Findings of this study were consistent with past studies (Ghani et al. 2001; Rissa and Jarvinen, 1996; Teo, 2001). These studies found that more of the males were online shoppers and they did more purchasing and downloading than the females. However, in terms of marital status, the present study did not concur with past research in which married couples and those living with a partner were reported to have highest online purchase rate (Freeman, 2000),

Table 2:
Demographic Profile of Internet Buyers

Demographic Variables	Percentage	Number	Signif*
Gender			
Male	68.2	30	0.012
Female	31.8	14	
Race			
Malay	41.9	18	0.649
Chinese	44.2	19	
Indians	14.0	6	
Age			
< 20 years	15.9	7	0.001
20-29 years	36.4	16	
30 years and above	47.7	21	
Marital Status			
Single	54.5	24	0.002
Married	45.5	20	
Education			
STPM and below	22.7	10	0.756
College Diploma	18.2	8	
University	59.1	26	
Occupation			
Student	27.3	12	0.268
Government employees	11.4	5	
Private sector employees	40.9	18	
Own Business	9.1	4	
Others	11.4	5	
Monthly Personal Income			
< RM 1,000	34.1	15	0.032
RM1,000 – 2,999	27.3	12	
RM3,000 and above	38.6	17	

* Test of significance using Chi Square test

while this study found singles to do more Internet purchase. Profile of Internet buyers developed by PIKOM also suggested more singles as online purchasers. In terms of income, it is obvious that those with a higher level of income were more likely to purchase. However, it is interesting to find that those with income of less than RM1,000 also had online purchases. This could be due to the large proportion of student sample who might also have purchased online.

Demographic Profile of Potential Internet Buyers

This study has also considered those who might become buyers in the future and it would be useful to know who they are. From a total of 256 non-buyers, 68 of them responded "Yes" to the question "If you have not purchased online previously, would you buy through the Internet in the future?" Those who answered "No" or "May be" were excluded from analysis. The profile of these potential buyers was similar to that of actual buyers. They also tended to be male and single. While the Internet buyers tended to be Chinese, more Malays expressed their intention to purchase over the net compared to the Chinese or Indians. In addition, those in the age group of 20-29 formed the largest group of respondents who expressed their intention to purchase online compared to the actual buyers who were aged 30 or more as well as below 20 years of age. This is not surprising since purchases have to be supported by ability to buy. Table 3 shows the profile.

For the demographic variables examined, no significant difference was observed for all variables except occupation and personal monthly income. A larger number of private sector employees expressed their intention to buy.

Table 3:
Demographic Profile of
Potential Internet Buyers

Demographic Variables	Percentage	Number	Signif*
Gender			
Male	58.8	40	0.092
Female	41.2	28	
Race			
Malay	45.5	30	0.723
Chinese	34.8	23	
Indians	19.7	13	
Age			
< 20 years	8.8	6	0.229
20-29 years	63.2	43	
30 years and above	27.9	19	
Marital Status			
Single	67.6	46	0.111
Married	32.4	22	
Education			
STPM and below	17.6	12	0.929
College Diploma	17.6	12	
University	64.7	44	
Occupation			
Student	35.3	24	0.014
Government employees	7.4	5	
Private sector employees	39.7	27	
Own Business	13.2	9	
Others	4.5	3	
Monthly Personal Income			
< RM 1,000	32.4	22	0.037
RM1,000 – 2,999	36.8	25	
RM3,000 and above	30.9	21	

* Test of significance using Chi Square test

Internet Usage Pattern by Ethnic Group

One of the objectives of this study is to examine the Internet usage pattern among the three ethnic groups. Findings of this study show that on the average the respondents spent about 10.04 hours per week on the Internet while the Malays spent the most number of hours (mean = 11.28) followed by the Chinese (mean = 9.41) and the Indians (8.72). However, there was no significant difference based on Scheffe test. The respondents were asked to state the place from where they accessed the Internet. As high as 60% of them accessed it from home, while 20% accessed it from work place and another 19% used computers at various locations such as the library, cyber café, community centre etc. For the ethnic comparison, the majority of the Chinese (65.5%) and Indians (63.3%) accessed the Internet from home while 54% of the Malays did so. Only 5.4% of the Indians reported that they accessed the Internet at work place whereas more than 20% of the Malays and Chinese reported so. However, as high as 30% of the Indians accessed it from other places such as from computers at library, community center, cyber café, and etc. compared with 24% of the Malays and 9.2% of the Chinese. Although the number of hours spent on the net did not differ significantly among the three races, the computer from which access was gained to the cyber world differed significantly at $p = .000$. Findings from this study were not consistent with findings of Ghani et al. (2001) due probably to the difference in sample characteristics. Ghani et al. found that 76.7% of the respondents accessed the net from office.

In addition to the usage pattern, the respondents were asked to state the reasons for using the Internet. Table 4 shows the findings. The most common purposes of

Table 4:
Internet Access by Purpose and Ethnic Group

Purpose	Ethnic Group (%)*				Sig.
	Malay	Chinese	Indian	Total	
E-mail	68.6	73.9	64.3	69.9	0.393
Research	71.9	63.0	73.2	68.6	0.237
News and Events	68.6	57.1	67.9	63.9	0.143
Chat room	24.0	24.4	26.8	24.7	0.917
Play games	15.7	20.2	12.5	16.9	0.406
Others	14.0	14.3	16.1	14.5	0.935
Discussions	7.4	9.2	3.6	7.4	0.410
Check stocks	1.7	8.4	5.4	5.1	0.058
Make Purchases	2.5	3.4	3.6	3.0	0.894
Stock Transactions	–	4.2	3.6	2.4	0.081

* Multiple responses were permitted

using the Internet were: to stay in touch with friends via e-mails, to conduct research, and to keep up with news and events. The least common purposes were: check stocks, make purchases, and to perform stock transactions. It is interesting to note that no significant difference in purpose could be found among the three races for using the Internet except for stocks and investments and stock transactions in which marginal significance was recorded. A higher percentage of the Chinese made use of the Internet for checking stocks and investments as well as for stock transactions compared to the Malays or Indians.

An Ethnic Comparison of Online Purchase Behaviour

When asked about online purchase history, most of the Internet buyers were relatively new buyers as 40.5% of them started online purchase less than six months ago while about 60% had purchased more than six

months ago. There was no significant difference in terms of history of purchase among the three ethnic groups. History of purchase also included the amount spent on Internet purchases from the time they engaged in the first purchase till the time of data collection. On the average, Internet shoppers spent a total of RM2992.35. Using ANOVA test, there was no significant difference among the three races although the Chinese reported the highest amount of spending (RM 3792.63) compared to the Malays (RM 3091.18) and Indians (RM178.10).

On the average, the respondents had made a total of 5.67 online purchases. Again, there was no significant difference among the three ethnic groups in terms of the number of times of purchase although the Malays had bought more often (mean = 7.47) compared to the Chinese (mean = 5.16) and Indians (mean = 2.17). Among the items purchased, the most popular ones were books followed by computer software. Findings from this study were consistent with that of Ghani et al. (2001).

Online payment was also popular which was consistent with the reports from Graphics, Visualization and Utilization Centre (1998). The characteristics of products purchased were consistent with knowledge in the industry that the items usually purchased online tended to be low in outlay, frequently purchased, and highly differentiated. Although groceries fitted the characteristics of popular items for online purchases, they did not appear as favoured for online purchase. This could be due to the availability of convenient stores, supermarkets and wet markets that are the traditional channels of distribution for such products. It could also be that different members of the households are involved in groceries purchases that might not be Internet users.

The respondents were also asked to indicate their preferred method of payment for online purchases. As high as 60% of them preferred to pay cash on delivery, while 28% preferred to pay via credit card. A small percentage preferred to use cheques. No significant difference among the three ethnic groups was observed. Table 5 shows the details.

Perceptions about Motivators for Online Purchases: An Ethnic Comparison

A total of 14 statements were included as motivators for online purchase. Table 6 shows the findings. For the 14 statements, the level of agreement was moderate, with the statement "One can shop at anytime of the day through the Internet" enjoying the highest level of agreement at 5.92. The statement that enjoyed the second highest extent of agreement was related to online buying being hassle-free (mean = 5.85). The statement that was related to the benefit of availability of product online that was otherwise not available (mean = 5.72) emerged as the third motivator for online buying. On the whole, the extent of for the statement "I have no concern when buying online" (mean = 3.36) was low, indicating the people did have reservations about buying online. In addition, the respondents were not agreeable that products purchased online gives better value for money as well as offered better customer service.

Table 5:
Internet Purchase Behaviour by Ethnic Group

Description	Ethnic Group (%)				Sig.*
	Malay	Chinese	Indian	Total	
History of Purchase					
< 6 months ago	35.3	42.1	50	40.5	
> 6 months ago	64.7	57.9	50	59.5	0.804
Amount Spent (RM)	3,091.18	3,792.63	178.1	2,992.35	0.691
Number of purchase	7.47	5.16	2.17	5.67	0.422
Preferred Method of Payment					
Credit card	29.8	26.9	30.4	28.7	
Cheque	7.4	12.6	10.7	10.1	0.746
Cash on delivery	62.8	60.5	58.9	61.1	

* Significance test using ANOVA

Table 6:
Perceptions on Motivators for Online Purchases:
An Ethnic Comparison

Description	Mean				
	Malay	Chinese	Indian	Total	Sig.*
One can shop any time of the day through the Internet	5.79	6.02	5.98	5.92	0.286
Buying online reduces the hassles of traveling physically to retail outlets.	6.03	5.76	5.66	5.85	0.084
Buying online will enable one to buy things that are not available in one's local area.	5.69	5.86	5.50	5.72	0.154
Buying online enables one to obtain information easily.	5.40	5.39	5.11	5.34	0.352
Product/service variety sold online is extensive.	5.06	4.97	5.04	5.02	0.849
Information available online is vast compared to other means of shopping.	4.82	5.04	4.82	4.91	0.759
Buying online is convenient.	4.77	4.87	4.93	4.84	0.421
Buying online would enable one to compare prices.	4.55	4.81	4.61	4.67	0.254
One can obtain promotional offers online.	4.70	4.46	4.73	4.61	0.117
Browsing on the Internet makes buying online a fun activity.	4.65	4.30	4.41	4.47	0.852
Digital products purchased via the Internet are delivered fast.	4.10	4.18	4.20	4.15	0.961
Products purchased online gives one better value for money.	3.93	3.92	3.88	3.92	0.419
Online shopping offers better customer service.	4.17	3.58	3.64	3.83	0.002
I have no concern when buying online.	3.13	3.63	3.27	3.36	0.059

Of all the statements, only one was significant when ethnic comparison was conducted: "Online shopping offers better customer service". The Malays tended to agree more than the Chinese and Indians. Two statements were marginally significant when ethnic comparison was made. One of the statements related to the hassle free nature of online buying while the other was concerned with the trust that people have for online shopping, i.e., "I have no concern when buying online". The Malays agreed that online buying was hassle free while the Chinese tended to agree more than the Malays and Indians that they were not concerned about online buying, expressing their confidence with online purchase, albeit at a low level of agreement.

Perceptions on Barriers to Online Shopping: An Ethnic Comparison

While influencers are important to understand online buying, it is equally important to know why people failed to make online purchases, as shown by the low percentage of online buyers (only 14.7% of the sample purchased online). These barriers will have implications for marketers who are interested to sell online. The details are as shown in Table 7. Being unable to feel/try/see/touch the product was the biggest barrier to online buying (mean = 6.17). Related to this was the uncertainty that respondents expressed about the quality of product since they were unable to see the product (mean = 5.32). This indicated that for purchase to take place, it is highly important



that buyers must be able to see the actual product, and if necessary, to try them. Since online shopping does not offer this opportunity, the low percentage of online buyers was to be expected. This finding was consistent with findings of Ghani et al. (2001) in which uncertainty about product quality was ranked as third obstacle to Internet buying. Another fear that hindered online purchase was the perception of respondents that products purchased online were difficult to return in case of faults (mean = 5.58). Thirdly, respondents were unwilling to give out personal particulars that are required in online buying (mean = 5.46). Related to this was the insecurity that was associated with online buying (mean = 5.25), which was ranked fifth as the obstacle for Internet buying. Previous research found this to be the main obstacle (Graphics,

Visualization and Utilization Center, 1998).

On the whole, respondents did not agree that searching for information was a problem that hindered online purchase (mean = 3.49). Comparing the perception of the three ethnic groups with respect to the barriers to Internet buying, no significant differences could be observed for most of the statements, except for two statements: "When buying online, one will sometimes encounter slow download time" and "I think buying online will result in higher price due to shipping cost". For the first statement, the Indians tended to agree more than the Malays and Indians regarding the slow download time, possibly due to the capacity of personal computers. The Malays tended to agree that shipping cost would increase the price of product more than the Chinese and Indians.

Table 7:
Perceptions on Barriers to Online Purchases:
An Ethnic Comparison

Description	Mean				Sig.*
	Malay	Chinese	Indian	Total	
When buying online, one is unable to try or feel/see/touch product prior to purchase.	6.26	6.12	6.07	6.17	0.505
When buying online, one will face difficulty returning faulty products.	5.65	5.06	5.38	5.58	0.375
I dislike giving out personal details when buying online.	5.49	5.49	5.34	5.46	0.78
I feel uncertain about the quality of product/service when buying online.	5.28	5.47	5.07	5.32	0.261
I do not feel secure when buying online.	5.06	5.46	5.20	5.25	0.147
When buying online, one will sometimes encounter slow download time of Internet sites.	5.24	5.05	5.63	5.24	0.033
I think buying online will result in higher price due to shipping cost.	5.32	4.86	4.95	5.06	0.037
I have the fear of loss of privacy when buying online.	4.74	5.04	5.29	4.97	0.095
I feel there is a lack of suitable online payment methods.	4.69	4.84	4.71	4.76	0.725
When buying online, product delivery takes too long.	4.75	4.76	4.69	4.76	0.985
I found it difficult to search for information/ to navigate the Web.	3.37	3.48	3.79	3.49	0.260

Conclusion and Implications

From a total of 300 respondents who were Internet users, only 44 (14.7%) were buyers, while another 68 (22.7%) potential buyers. This indicated that while the penetration rate of Internet subscribers may be high, the percentage of Internet buyers remained low. The profile of Malaysian Internet buyers tended to be 30 years and older, single, with university education, private sector employees, and with monthly personal income of RM3,000 and above. In terms of hours spent per week on the Internet, no significant difference could be observed among the three races. On the average they spent about 10.04 hours. The Internet was used mainly for keeping in touch with friends and relatives via e-mails, research, keeping updated with news and events, and participating in chat rooms. The least popular use was in transacting stock transfers. The most popular item purchased over the Internet was book followed by computer software.

In terms of respondents' perception about the factors that influenced Internet buying were: time convenience, hassle free shopping, and availability of product online but otherwise not available off line. For factors that hindered online buying, the most important factor was the lack of opportunity for trying/seeing/feeling the product. This was followed by the perception that faulty products were difficult to return and the dislike for disclosing personal details when buying online.

Implications of the Study

This study has provided useful information for marketers interested in online marketing. Knowing the demographic profile of online purchasers as well as potential purchasers, marketers have a better understanding of

their target audience. Marketing communications and promotions could be tailored to the appropriate market segments. Findings from this study indicated that the preferred method of payment was cash on delivery. It would be useful for marketers to explore how this method of payment could be introduced. In terms of product characteristics, improvements could be introduced to appeal to the target Internet consumers who had preference for differentiated products. However, converting the large number of Internet users to Internet buyers remains the greatest challenge for online marketers. Online shopping that has made place and time irrelevant is a promising channel of distribution provided that the obstacles to Internet shopping could be overcome. This may require some regulatory measures on the part of policy makers.

For policy makers, insights gained from this study could be useful for promoting the greater rate of Internet shopping by removing the barriers to buy online. For example, issues that the Government can address include improving security measures and regulations pertaining to product return policy.

Bibliography

- Burton, J. (2000). Creating Ways to Cut the Delivery Time From Mouse to House. *New York Times*, June 7, H38
- Elder, V.B., Gardner, E.P. and Ruth, S.R. (1987). Gender and Age in Technostress: Effects on White Collar Productivity. *Government Finance Review*, 3 (6), 17-21
- Freeman, M. (2000). E-Buying Patterns Tied to Expertise. *Bank Systems and Technology*, New York: 37 (9), September, 26
- Gartner G2 (2001). Gartner G2 Study, <http://www.gartner2.com/site>
- Ghani, E.K., Jamaliah, S., and Noriani, N. (2001). *Cross Sectional Studies on On-*

- line Shopping Among Malaysian Employees*. Universiti Teknologi MARA Graphics, Visualization and Utilization Center (1998). *GVU's WWW User Surveys*. <http://WWW.Gvu.gatech.edu/gvu/user.surveys/survey-1998-04/Reports/1998->
- Pastore, M. (2001). Online Consumers Now the Average Consumer. Internet.com. <http://www.internet.com>
- Pavitt, D. (1997). Retailing and the Super High Street: The Future of the Electronic Home Shopping Industry. *International Journal of Retail and Distribution Management*, 25 (1), 38-43
- Phau, I. And Sui, M.P. (2000). Factors Influencing the Type of Products and Services Purchased over the Internet. *Internet Research Electronic Networking Applications and Policy*, 10 (2), 102-113
- PIKOM (Association of Computer and Multimedia Industry Malaysia) (2000). Online Retailing in Malaysia, <http://www.pikom.org.my>
- Rissa, M. and Jarvinen, P (1996). Finnish WWW User Survey, <http://www.pjoy.fi>
- Rowley, J. (1996). Retailing and Shopping on the Internet. *Electronic Networking Applications and Policy*, 6 (1), 81-91
- Salste, T. (1996). The Internet as a Mode of Non-store Shopping. <http://www.aivosto.com/vbq5/study.html>
- Strauss, J. and Frost, R. (1999). *E-Marketing*, 2nd edition, Upper Saddle River, New Jersey: Prentice-Hall Inc.
- Teo, T. (2001). Demographic and Motivation Variables Associated with Internet User Activities. *Internet Research: Electronic Networking Applications and Policy*, 11 (2), 125-137
- Ward, H. (2000). *Principles of Internet Marketing*. Cincinnati, OH: South-Western College Publishing.
- Ward, M.R. and Lee. M.J. (2000). Internet Shopping, Consumer Search and Product Branding. *Journal of Product and Brand Management*, 9 (1), 6-20
- Wilson, T. (2000). E-Shopping is Habit-Forming Study. *Internet Week*, 812, 31, <http://www.internetwk.com>
- Zikmund, W.G. (1997). *Business Research Methods*, 5th edition, Fort Worth: The Dryden Press.