E-Commerce: A Study on Online Shopping in Malaysia

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ABSTRACT Despite the high potential of online shopping in Malaysia, there is still a lack of understanding concerning the subject matter and its potential impact on consumer marketing. This study aims to establish a preliminary assessment, evaluation and understanding of the characteristics of online shopping in Malaysia. The Chi-squire test was used to determine the relationship between current online shoppers and demographic variables. Samples t-test was then used to compare the mean differences between current online shoppers and non-online shoppers. Then, correlation coefficient matrix was employed to determine the degree of correlation between future online shopping and issues concerning online shopping. The study revealed that online shopping in Malaysia is significantly associated with the Chinese ethnic group, university degree holders and credit cards or chequebooks owners. The results also indicated a significant mean difference between online shoppers and non-online shoppers in gathering product information and comparing price of goods and services before a purchase decision. Results also indicate that this group of non-online shoppers constitutes more than 60% of the total number of online consumers in Malaysia, implying a huge potential of online shopping to online retailers. In conclusion, online consumers in Malaysia still lack confidence and trust in utilizing the Internet as a shopping channel. They are mainly concerned about issues related to privacy and trust when dealing with online retailers. These issues, if left unchecked, will have a detrimental effect on the future growth of online shopping in Malaysia.

INTRODUCTION

In Malaysia, since the introduction of the first Internet Service Provider (ISP) JARING back in 1990, and later TMNET in 1996, the growth of Internet usage in Malaysia has been steadily growing. From a mere number of 90 Internet users in 1992, the Internet craze to get connected increased to a vigorous 50,176 in 1996, then 100, 103 at the end of 1997 (Hassan, 1997), and later at a staggering 2 million in March 2002; 21 percent of Malaysia's population of 22.2 million people (Nua, 2002).

According to Nua (2001), 25 percent of the Malaysian population will have Internet access by 2005. A study by International Data Corporation (IDC) Asia-Pacific indicates that the future forecast for online shopping in Malaysia looks bright and promising. IDC estimates that sales revenue generated by Internet commerce in Malaysia is expected to grow from US$ 15 million in 1998 to US$ 46 million in 1999 to US$ 1.57 billion in the year 2003 (Louis and Leon, 1999).

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The expected growth in e-commerce is due to a rapid rise in the number of PCs in Malaysia, as well as growth in the proportion of PCs hooked up to the Internet each year. This provides greater opportunities for Malaysians to conduct both business and shop online (Legard, 1998). Despite the statistics and success stories of many online merchants elsewhere, the apprehension of going online by local firms is real, especially for smaller companies. Local companies appear to be lagging and afraid to venture into online retailing. This is because Internet commerce is still relatively new and there are no hard and fast rules to live by, with no tried and tested business model to imitate (Louis and Leon, 1999).

According to IDC, it is important for the local companies in Malaysia to have a good understanding of the marketplace for their products and their target customers before engaging themselves in online retailing (Louis & Leon, 1999). With a good understanding of their target customers, online retailers and entrepreneurs are able to develop more effective and targeted online retail operations that meet the requirements and expectations of their new online shopping customers (Shannon, 1997). This is critical in order to ensure successful imple-

mentation of their online retailing business in Malaysia.

However, there seems to be a lack of understanding and knowledge on consumers' attitudes towards online shopping. Considering that online shopping is still at the early stage of development, little is known about consumer attitudes toward adopting this new shopping channel and factors that influence their attitude towards it (Eastlick and Lotz, 1999). This is especially true in the context of Malaysia where online shopping is still new and consumers are less familiar and often more skeptical towards online shopping, but little is known about them. Therefore, this study aims to examine current users of online shopping in Malaysia with the intention of establishing a preliminary assessment, evaluation and understanding of the characteristics of online shoppers in Malaysia.

LITERATURE REVIEW

The emergence of e-commerce is not revolutionarily new as it has existed for quite some time (OECD, 1997). Since in the 1970's and 1980's, businesses have been deploying e-commerce via electronic data interchange (EDI) for computer-to-computer exchange of standardized electronic transaction documents within an organization or inter-organizations using proprietary private valued-added networks (VANs) as a communication medium. However, this form of traditional e-commerce using private value-added networks as communication medium is costly to install and maintain, and has put e-commerce out of reach in many small and medium sized businesses (Margherio, 1998).

The arrival of the commercial use of the Internet and its World Wide Web (WWW) has been defining the new e-commerce since 1993 (Zwass, 1996). With the emergence of the Internet and World Wide Web (WWW) as a medium for commercial transactions, it has thrust e-commerce into the spotlight, becoming the main focus of the international community. The Internet and WWW have made it easier, simpler, cheaper and easily accessible for businesses of all sizes and consumers to interact and conduct commercial transactions electronically as compared with the traditional approach of using private value-added networks (Margherio, 1998). By virtue of the Internet's network architecture, e-commerce is born global, where geographical boundaries and political boundaries mean little in this networked environment (OECD, 1997). As a result, e-commerce through the Internet dramatically shrinks the distance between producers and consumers, who can make their purchases directly without involving traditional 'middle-men' such as retailers, wholesalers and distributors. Although new intermediaries are required (for example network access providers, electronic payment system, and authentication and certification services), these are far less labour-intensive than traditional channels (Wyckoff, 1997).

Electronic retailing over the Internet or online shopping first started in 1994 (Hsin, 2000). It is considered as one form of direct consumer marketing of non-store retailing using online channels. This new concept of retailing has captured the interest of many retailers and merchants because of the general recognition that online shopping will establish itself as an alternative channel alongside traditional offline retail channels such as physical retail stores (Rowley, 2000). Electronic retailing predominantly started in the form of online storefronts whereby products from a single merchant are offered to consumers through an online catalogue. Merchants tend to choose to establish online storefronts as an online retailing method when the product brand names and reputations are well established and widely known among consumers. A good example is The Dell Online Store that sells personal computers (The Economist, 1997) to consumers everywhere.

However, a large extent of the suitability of the Internet for marketing depends on the characteristics of the products and services being marketed (Peterson et al., 1997). According to a study by Professor Rajiv Lal and Assistant Professor Miklos Sarvary of Stanford Business School in Palo Alto, California, US, products that are being marketed through the Internet can be classified into two groups (Legard, 1998). The first groups of products are items that consumers do not need to see in person before purchasing. These products, which include everything from computers to compact discs to canned goods, can be evaluated using just text, pictures and other digitally communicable information. This group of products is ideally suited to online shopping whereby the Internet could serve significant transaction and communication functions (Peterson et al., 1997).

The second group of products is termed as 'experience products', which include items that consumers prefer to see and touch before purchasing, such as clothes and groceries. This group of products is not suitable for online shopping since information about the product's features may not be sufficient for consumers to engage in Internet-based transactions. Consumers will only purchase such products from the Internet after they have already experienced them (Landry, 1998; Peterson et al., 1997).

Table 1: Reasons Why People Shop Online

Reasons	Percent (Base: 1007)
Saves time/ Convenience	78%
Better prices	51%
More selection	43%
Easier shipping	40%
Ability to find a more personalized gift	28%
More information available about the products	20%
Other	8%

Source: McGann, "Online Holiday Purchases to Grow Despite Growing Security Concerns", ACNielsen Research, November 30th 2004

Consumers shop on the Internet because they find their choices dramatically increased. They have access to much more information when making purchasing decisions. Busy consumers can save time and find shopping more convenient as online merchants serve their needs individually. Better and greater access to information, combined with lower operating cost for many Internet business may, in turn, drive reductions in prices or improvements in quality (Margherio, 1998).

The concept of "Bringing stores to shoppers – not shoppers to stores" is also finally realized. Other than that, the issue of convenience and speed seem to be the most obvious reasons why shoppers prefer online shopping in contrast to traditional bricks-and-mortar method of shopping. Consumers have also been described as time-poor, thus desperate to spend their non-work time in more recreational pursuits as arguments for the growth and sustainability of online shopping (Parsons, 2002).

Based on the study conducted by ACNielsen Research, the reasons why consumers shop online over the Internet is shown in Table 1 above (McGann, 2004). Convenience is the most prominent factor that motivates consumers to shop online. The timing, location and purchasing process through the Internet are much more superior than other traditional methods of purchasing goods and services (Hanson, 1999). The 24-hour availability of online storefront and accessibility from almost any location makes online shopping more convenient to consumers and provides consumers with a powerful alternative channel for making purchases.

The second dominant factor that influences consumers to shop online is the competitive prices and deals offered by online retailers. The simplest reason for consumers to purchase online is to save money from the cheaper prices offered by online retailers compared to traditional channels. Online retailers are able to offer cheaper prices because of the shrinking cost of information processing, lower operating cost and global reach provided by the Internet (Rowley, 2000). Another main reason that cheaper prices are offered to online shoppers is because of competitive pressure, especially from new online retailers. New online retailers use price as a main competitive weapon to attract customers (Hanson, 1999).

The third dominant factor that motivates online consumers to purchase goods and services over the Internet is the good selection and wider availability of product choices offered by online retailers. Online retailers are able to provide a wide range and assortments of products as compared to traditional channels simply because there is no physical space limit on the number of products that online retailers can display on their online storefronts. For example, Barnes & Noble and CD Now are able offer their customers millions of books and music titles on their websites. Furthermore, the number of online stores that consumers are able to visit online far exceeds the number of physical stores, thus, providing them with a wider selection of products to choose from.

Ease of research in gathering product information is also one of the factors that influence consumers to shop online. In virtual market spaces on the Internet, consumer searches for product information is much more effectively and efficiently conducted as compared to traditional channels. This is achieved by employing browser and intelligent search agents such as comparison shopping agents which are designed to simultaneously locate and compare products prices across multiple online retailers (Rowley, 2000). This makes the purchasing

process on the Internet much simpler for the consumers. Some of the well-publicized examples of comparison shopping agents on the Internet are ActivShopper, BizRate and MySimon.

Dependent Variables

The theoretical framework of the study is as shown in Figure 1. The understanding of consumer behaviour in a virtual environment is limited since electronic shopping is only just beginning to penetrate mass markets. As activity in the electronic retailing market grows, it is important to develop an understanding of the factors that affect consumer behaviour in this virtual market space. This will enable online retailers to develop more effective and focused strategies for optimizing the visibility of their product offerings and to encourage consumers

to make an online purchase decision. An important aspect of consumer behaviour in the virtual market space is the search habits that consumers adopt in gathering information prior to making a purchase decision.

The first stage in the consumer purchasing process is information search. This stage is recognized as an important phase during which promotional messages reach the intended consumer. Like many other stages of the purchasing process, information seeking becomes more structured and constrained in the electronic shopping environment (Rowley, 2000). In particular, the ability to collect product information and make comparisons between different product offerings from different online retailers across the globe is often viewed as one of the main competitive challenges of electronic shopping over the Internet.
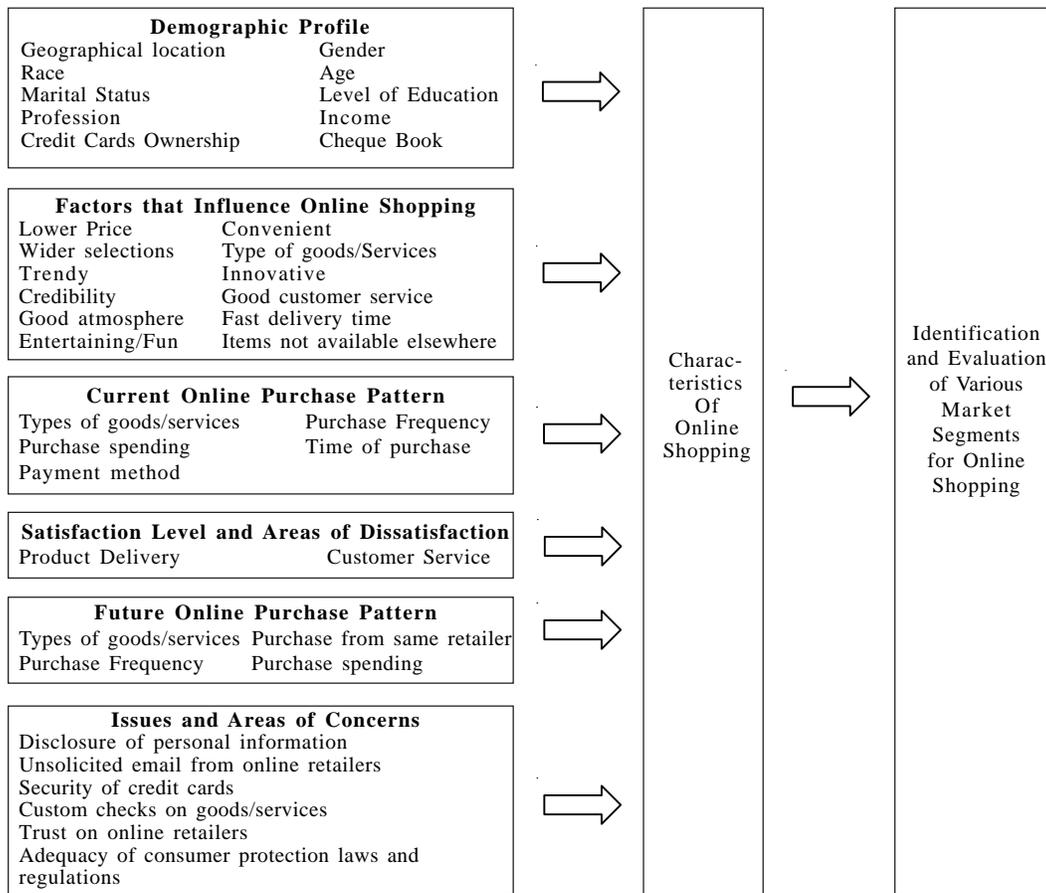

Fig. 1. Theoretical framework of study

Internet commerce has developed into an information intensive medium and websites intended for transactions become information-intensive sources for the consumers (Fortune, 1998). However, there should be a fine balance between providing sufficient information for the consumers to make decisions and too much information which may provoke information overload (Rowley, 2000). From the literature reviews, the characteristics of current online shopping users, which are represented as dependent variables in the study, can be explained in terms of the following independent variables as described in Figure 2. Based on literature review, with regards to the concept of theoretical framework, the following hypotheses were developed:-

H1: There is no relationship or association between online shopping and demographic variables (geographical location, gender, race, age, marital status, number of children, level of education, profession, income, credit card and cheque book ownership).

H2: There is no relationship or association between online shopping and the purchasing of goods and services through physical stores, catalogue/mail order, TV/telephone and direct selling via salesman.

H3: There is no difference between users and non-users of online shopping in using online retailers' web sites to gather product information and compare prices of goods and services.

H4: There is no significant correlation between future online purchase variables (purchase frequency, online spending and same online retailers) and currents areas of concern of online shopping users' variables (disclosure of personal information, receipt of unsolicited e-mail, security of payment using credit cards, custom checks, trust in online retailers and adequacy of customer protection laws).

RESEARCH METHODOLOGY

A structured questionnaire was used to collect the necessary data. It serves as primary data to answer the research questions and objectives pertaining to online shopping in Malaysia. The survey questionnaire consists of 10 distinct sections, each of which contains questions pertaining to different parts of the study. In view of time and cost constraints as well as the large population of Internet users in the country, convenience sampling was used to collect data from the current Internet users in Klang Valley, which has the highest concentration of Internet users. Eventhough the sampling method adopted has limitations in terms of generalisibility compared to other sampling methods, it is assumed that the sample represents the whole population of Internet users in Malaysia. The survey was conducted via email and face-to-face interviews.

A list of e-mail users currently registered with TMNet was obtained from Telekom Malaysia. The survey questionnaire was only e-mailed to Internet users who agreed to participate in the survey. This step was taken to avoid complaints from other Internet users and also to increase the responsiveness of respondents for the survey. Apart from the ability to reach large target respondents and inexpensive way to conduct the survey, e-mail surveys also enabled respondents to easily provide extensive responses to open-ended questions in describing their experiences in online shopping. Extensive responses received from open-ended questions will provide valuable input to the study so that a better understanding of online shopping in Malaysia can be achieved. Besides e-mail, a copy of the survey questionnaire was also posted on the Usenet group and only those related to Malaysia were used. This is to ensure that the target respondents are only those who reside in Malaysia.

A total of 450 survey questionnaires were sent out, to which 420 questionnaires were received. Each of the response received was screened for errors, incomplete or missing responses. Efforts were also taken to contact the affected respondents through e-mail for clarification and corrections, especially for missing or blank responses. However, responses that had more than 25% of the questions in the survey questionnaire left unanswered or incorrectly answered were discarded from data analysis. For those responses that had a few blank answers (less than 25% of the questions) and which involved 5-point interval-scaled questions were assigned with a mid-point scale of 3. After the screening process was carried out, only 360 responses were considered complete and valid for data analysis. This represents a success rate of 86%, which is considered to be good in view of time and cost constraints.

STATISTIC ALANALYSIS

The various statistical techniques that are

used in the data analysis are described in this section. Frequency Distribution Analysis is used to determine a demographic profile of the survey respondents and the current users of online shopping. The frequency distribution analysis is also used to determine the method of payment, current and future usage pattern of online shopping, areas of dissatisfactions and reasons for not purchasing goods and services online among non-users of online shopping.

Cross-tab and Chi-square Test are also used to determine the relationship between online shoppers and other conventional methods of shopping such as shopping via physical stores, catalogue/mail order, TV/telephone and direct selling via salesman. The Independent Samples t-test is used to compare mean differences between users and non-users of online shopping in using the online retailers' websites to gather product information on goods and services. Finally Pearson Correlation Coefficient Matrix is used to determine the degree of correlation between future online purchases and areas of concern of current users of online shopping.

RESULT AND DISCUSIONS

Frequency distribution analysis is used to examine and describe the demographic profile of current users of online shopping with the intention of providing a preliminary assessment of current online shoppers in Malaysia. The results of the demographic profile analysis are shown in Table 2.

The results of this study showed that 61.6%

Table 2: Demographic profile of survey respondent

Variables	Frequency	Percentage
Age (in years)		
Less than 20 years	18	5
21-30 years	168	46.6
31-40 years	122	33.8
41-50 years	52	14.4
Gender		
Male	222	61.6
Female	138	38.3
Ethnic Groups		
Malay	252	70
Chinese	73	20.3
Indian	26	7.2
Others	9	2.5
Occupation		
Professional	242	67.2
Student	29	8.1
Others	89	24.7

of the respondents are male while 38.3% of the remaining respondents are female. In this study, the respondents are categorized into 4 levels of age groups; less than 20 years old; 21 to 30 years old; 31 to 40 years old and 41 to 50 years old. From Table 3, a majority of the respondents (46.6%) fall in the age range between 21 to 30 years of age. This is followed by 33.8% of the respondents from the 31 to 40 years of age category while 14.4% fall in the 41 to 50 years of age category. Finally, 5% of the respondents come from the less than 20 years of age category.

Frequency analysis is used to determine the different methods of payment that are mainly used by users of online shopping in making their payments for their online purchases. The results of the frequency analysis are given in Table 3.

Table 3: Method of payment

Method of Payment	Frequency N=360	Percentage
Credit Cards	274	76.1
Bank draft/Money order	51	14.2
Cheques	16	4.5
Cash on delivery (C.O.D)	14	3.7
Others	5	1.5

The results in Table 3 show that a majority of online consumers use credit cards (76.1%) to make their payments for their online purchases, followed by bank draft/money order (14.2%) while cheque, cash on delivery (C.O.D) carried very small percentages which is 4.5% and 3.7% respectively.

A mean value analysis was used to identify and examine dominant factors that influence online consumers to shop online. Table 4 shows the results of mean values of the important factors that influenced online consumers to shop online (value 1 being the least important and value 5 being the most important factor):

Based on the results shown in Table 4, the most important and dominant factors that influenced online consumers to shop online are "convenience" (3.83), "cannot get items elsewhere" (3.83) and "cheaper price" (3.73).

HYPOTHESES TESTING AND DISCUSSION

The main aim of this part of the study is to test the four hypotheses that were developed earlier as stated in the literature review section. The Pearson Chi-square, Independent Samples T-test and Pearson Correlation Matrix are used to

test the hypotheses and the results of the tests are presented and discussed separately.

Derived from Table 5, the Pearson Chi-square test results showed that there is a significant relationship or association between online shopping and race, level of education, credit card and cheque book ownership (where the p-value is less or equal to 0.05). Among the demographic variables, credit card ownership is most significantly associated with online shopping, with a p-value of 0.009.

The relationship between online shopping and these demographic variables are affecting the number of users of online shopping in the following manner:

a) Within ethnic groups, the Chinese are the

highest participants of online shopping (47.1%) and most significantly associated with online shopping with a p-value is 0.002. This is followed by the Malays (0.099 p-value) and Indians (0.497 p-value).

b) Within level of education categories, university graduates are the highest users of online shopping (0.001 p-value) followed by diploma holders (0.212 p-value) and secondary school certificate holders (0.242 p-value).

c) Among online consumers who owned at least a credit card, 41.9% are users of online shopping with a p-value of 0.009.

d) Among online consumers who owned a cheque book, 43.8% are users of online shopping with a p-value of 0.011.

Other demographic variables are found to be insignificant and therefore are not related or associated with online shopping.

Table 4: Mean value of factors that influence online shopping

Variables	Mean N=360	Std. Deviation N=360
Convenient	3.83	1.24
Cannot Get Items Elsewhere	3.83	1.26
Cheaper Price	3.73	1.56
Others	3.2	2.05
Innovative	3.18	1.47
Wider Selections	2.95	1.06
Customized/Personalized	2.84	1.28
Types of Goods/Services	2.63	1.11
Trendy	2.62	1.28
Can Get Latest Items	2.56	1.32
Good Customer Service	2.37	1.33
Fast Delivery	2.28	1.17
Entertaining/Fun	2.25	1.16
Good Atmosphere	2.14	0.9
Credibility	2.14	1.15

Table 6: Pearson Chi-square test results between internet shopping and other purchasing methods

Purchasing Method	Value	df	Asymp. Sig. (2-tailed)
Ordinary Stores	0.47	1	0.493
Catalogue/Mail Order	0.976	1	0.323
TV/Telephone	10.743	1	0.001*
Direct Selling via Salesman	3.047	1	0.081

Note: * Significant at 0.05 level (2-sided)

The Pearson Chi-square is used to test the validity of the second hypothesis and the results are shown in Table 6 above. The results showed that there is a significant relationship and association between online and purchasing via TV/telephone (with a p-value of 0.001) whereby 71.4% of online consumers who use TV/telephone as a method of purchasing goods and services are also users of online shopping. Other variables are found to be insignificant.

The independent samples t-test is used to compare mean differences between users and non-users of online shopping in using the online retailers' websites to gather product information and to compare prices on goods and service. The results of the independent sample t-test are shown in Table 7 below:

The results in Table 7 shows that the F statistics is 4.908 with a p-value of 0.027, which is less than 0.05 level, indicating that the Levene's test of equal variance cannot be used and the null hypothesis is rejected. Therefore, the t-test of equal variance not assumed is used instead.

Table 5: Pearson chi-square test result between internet shopping and demographic

Demographic Variables	Value	df	Asymp. Sig. (2-tailed)
Geographical Location	0.025	1	0.875
Gender	1.777	1	0.183
Ethnic Groups			
Malay	4.627	2	0.099
Chinese	12.085	2	0.002*
Indian	1.4	2	0.497
Other	2.571	2	0.276
Age	8.123	4	0.059
Education			
University Graduate	10.721	1	0.001*
Diploma	1.56	1	0.212
Secondary Level	1.369	1	0.242
Profession	12.027	12	0.444
Income	13.665	10	0.189
Credit card ownership	6.767	1	0.009*
Cheque books ownership	6.432	1	0.011*

Note: * Significant at 0.05 level (2-sided)

Table 7: Independent sample t-test results of users and non-users of online shopping in using online retailers' websites

	F	Sig.	t	df (2-tailed)	Sig. difference	Mean error difference	Std.	95% Confidence interval of the difference	
								Lower	Upper
Equal variances assumed	4.908	0.027	7.212	358	0	0.8	0.11	0.58	1.02
Equal variances not assumed			7.194	282.87	0	0.8	0.11	0.58	1.02

The results of the t-test shows that the difference in means between users and non-users of online shopping is significant with a t-value equal to 7.194 with 282.87 degrees of freedom (df) and a p-value of less than 0.05. Therefore, there is a significant mean difference between users and non-users of online shopping in using retailers' websites to gather product information and compare prices of goods and services before making a purchase decision.

The Pearson Correlation Coefficient Matrix is used to measure the strength, direction and significance of correlation between future online purchases and current areas of concern of online shopping users. The results derived from Table 8 show that there is a significant (with a p-value less than 0.01) and positive correlation (0.260) between future purchase frequency and online shopping users' level of trust in online retailers. This indicates that users of online shopping will increase their future online purchase frequency when their level of trust in online retailers increases. Results showed a positive correlation (0.292) between future online spending and online shopping users' level of trust in online retailers with a p-value of less than 0.01. This indicates that users of online shopping will increase their future online purchase spending when their level of trust in online retailers increases. For future purchases from same online retailers and online shopping users' level of trust in online retailers, the result showed a positive correlation (0.377) at 99% level of significance. Between future purchase from same online retailers and online shopping user's concern on custom checks on goods purchased online, the results indicated a significantly positive correlation (0.275) at 99% level of significance. This indicates that users of online shopping will purchase from the same online retailers when their concern for custom checks on goods purchased from overseas-based online retailers' increases.

There is a significant and positive correlation (0.413) between future online purchase frequency and future purchase from same online retailers. This indicates that users of online shopping will increase their future purchase frequency with the same online retailers. Results showed a positive correlation (0.390) between future online purchase frequency and future online spending; between future online spending and future online purchase from the same online retailers (0.577); between online shopping users' concern on disclosure of personal information and custom checks on goods purchased online from overseas-based retailers (0.396); between online shopping users' perception on the level of security of payment using credit cards and the level of trust in online retailers (0.351) as well as between online shopping users' perception of the level of security of payment using credit cards and adequacy of consumer protection law and regulations. These indicated that as users of online shopping increase their future online purchase frequency, online spending, concern on personal information disclosure, perception on level of security of payment using credit cards and perception on the adequacy of consumer protection law and regulations also increased positively.

The results derived from Table 8, all the future online purchase variables indicated positive correlation except between online shopping users' concern on disclosure of personal information and their perception on adequacy of consumer protection law and regulations. The result showed significantly negative correlation (-0.291) at 99% level of significance. This indicates that as online shopping users' concern on the disclosure of personal information increase, their perception on the adequacy consumer protection law and regulations decreases.

CONCLUSION

This study is to examine and understand the characteristics of current users of online shopping

Table 8: Pearson correlation coefficient matrix between future online purchases and areas of concern of online shopping users

Variables	Future Purchase Freq.	Purchase fr. Same Online Retailers	Future Online Spending	Disclosure of Personal Info.	Receive Unsolicited E-mails	Security of Credit Cards	Custom Checks	Trust in Online Retailers	Consumer Protection Laws
Future Purchase Frequency	1 . 136	.413** 0 136	.390** 0 136	0.108 0.21 136	0.077 0.374 136	0.146 0.089 136	0.106 0.22 136	.260** 0.002 136	0.084 0.333 136
Purchase fr. Same Online Retailers	.413** 0 136	1 . 136	.537** 0 136	0.15 0.081 136	0.052 0.55 136	0.152 0.078 136	.275** 0.001 136	.377** 0 136	-0.003 0.975 136
Future Online Spending	.390** 0 136	.537** 0 136	1 . 136	-0.005 0.951 136	.195* 0.023 136	0.107 0.213 136	0.059 0.493 136	.292** 0.001 136	.181* 0.035 136
Disclosure of Personal Info	.108 0.21 136	0.15 0.081 136	-0.005 0.951 136	1 . 136	0 0.997 136	-0.071 0.411 136	.396** 0 136	-0.042 0.63 136	-.291** 0.001 136
Receive Unsolicited	0.077 0.374 136	0.052 0.55 136	.195* 0.023 136	0 0.997 136	1 . 136	0.062 0.475 136	0.007 0.937 136	.205* 0.017 136	.221** 0.01 136
Security of Credit Cards	0.146 0.089 136	0.152 0.078 136	0.107 0.213 136	-0.071 0.411 136	0.062 0.475 136	1 . 136	0.013 0.884 136	.351** 0 136	.379** 0 136
Custom Checks	0.106 0.22 136	.275** 0.001 136	0.059 0.493 136	.396** 0 136	0.007 0.937 136	0.013 0.884 136	1 . 136	0.004 0.965 136	-0.1 0.247 136
Trust in Online Retailers	.260** 0.002 136	.377** 0 136	.292** 0.001 136	-0.042 0.63 136	.205* 0.017 136	.351** 0 136	0.004 0.965 136	1 . 136	.222** 0.009 136
Consumer Protection Laws	0.084 0.333 136	-0.003 0.975 136	.181* 0.035 136	-.291** 0.001 136	.221** 0.01 136	.379** 0 136	-0.1 0.247 136	.222** 0.009 136	1 . 136

and its relationship with demographic variables and other relevant consumer behavioural patterns with the intention of establishing a target market for online shopping in Malaysia. In profiling the characteristics of online shopping users in Malaysia, the study also reveals that there is a significant relationship between online shopping and shopping via TV/telephone. The results of the study indicate that more than two thirds of online consumers who shop via TV/ telephone shopping channel are also users of online shopping. The result of the study also reveals that there is a significant difference between users and non-users of online shopping in using the retailers' websites to gather information and compare prices of products before making a purchase decision. Users of online shopping make use of online retailers' websites more often than non-users of online shopping to gather product information and compare prices of goods and services before making a purchase.

The next objective of the study is to establish online shopping users' preference in choosing online retailers. The findings of the study also implies that consumers are looking for cheaper prices and bargains when they shop online, making it one of the dominant factors that motivates online consumers in Malaysia to shop online. The finding also suggests that online retailers need to provide competitive prices for their products in order to attract online shoppers to their websites and encourage them to make a purchase decision. However, this will lead to intense price competition among online retailers, and the level of competition is expected to increase even further with the availability of intelligent search engines and online shopping agents that enable online consumers to easily compare product offerings from various online retailers. Thus, in order to avoid intense price competition, online retailers need to find other ways to differentiate themselves from their competitors.

The result also shows that the median time of online purchases made via the Internet is on special occasions. However, the study also discovers the time of online purchase is significantly associated with race or ethnic group of online consumers and those who own cheque books. However, the result of the study also show that future online purchase frequency is significantly and positively correlated with future online spending and future purchase from the same online retailers. Therefore, it can be concluded that as users of online shopping increases their purchase frequency, their online spending will also increase and they will more likely make future purchases from the same online retailers.

Finally, this study is to identify and examine major areas of concern and issues currently faced by users of online shopping and to assess their impact on future online purchases. The results of the study show that users of online shopping in Malaysia are most concerned with privacy in disclosing personal information to online retailers when they make their purchases via the Internet. The study also finds that there is a significant correlation among the areas of concerns and issues faced by users of online shopping. These concerns are on custom checks on goods, adequacy of consumer protection law and regulations and level of trust on online retailers. In addition to that, the findings of the study imply that a majority of non-users of online shopping in Malaysia still lack confidence and trust in using the Internet to purchase goods and services. There is also a lack of awareness among the majority of non-users of online shopping on the benefits that can be gained via shopping online as compared to other more traditional shopping channels.

IMPLICATION

Despite the high growth potential of retail e-commerce and ongoing interest in online shopping in Malaysia, there is still lack of understanding concerning the characteristics of online shoppers in Malaysia and its potential impact on consumer marketing. This is mainly attributed to the fact that online shopping is rather new in Malaysia and just beginning to take its place as an alternative shopping channel for consumers to shop for goods and services. This new emerging concept of retailing has captured the interest of retailers and businesses, financial institutions, telecommunication service providers, government officials and even consumers because by virtue of its unique characteristics. Online shopping has the potential of becoming a dominant alternative shopping channel in the near future that cannot be easily challenged by the conventional retailing method.

The recommendations that can be derived

from the findings of the study are presented and divided into three parts, namely, for the online retailers, Telekom Malaysia as the main telecommunication and Internet service provider in the country and the Government of Malaysia. Based on the findings of the study, it is recommended that online retailers to consider taking the following initiatives in order to increase their chances of success in retailing business via the Internet:

Online retailers need to ensure that the online shopping process in their websites is designed to be as easy, simple and convenient as possible for online consumers to shop online. The websites should also be designed in such a way not to confuse potential online buyers in Malaysia, who may not be familiar with this new form of shopping. With easy to use and user-friendly websites, this will encourage new buyers to make a purchase decision who may more likely return for repeat purchases.

Online retailers also need to ensure that they provide an efficient delivery service to their customers, particularly goods that are purchased for special occasions as well as perishable goods that are easily spoilt that need to be delivered to the customers in a timely manner. One way to achieve this is for online retailers to keep an adequate inventory of goods and to implement a tracking system that would enable both online retailers as well as customers to track and be informed on the delivery status of goods. However, this can only be accomplished through streamlining and integration of online retailers' current business operation processes with their suppliers, warehouses and delivery companies. In addition to that, there is also a need for online retailers to develop a comprehensive privacy policy for their customers on the disclosure of personal information in order to lessen their concerns for privacy. The policy should clearly state that the information collected would be kept confidential and not shared or passed on to another party without their consent. There should also be an avenue for customers to request for the removal of their personal information from the online retailer's database.

In line with its vision, strategic direction and business objectives, it is imperative for Telekom Malaysia to take up a major role in leading the country towards an e-commerce era. As the leading telecommunications and Internet service provider in the country, Telekom Malaysia needs to provide cheaper Internet access in order to encourage more consumers to become Internet users. This is to accelerate the growth of Internet users in Malaysia with the intention of creating a critical mass for online shopping to take-off in Malaysia.

There is also a need to introduce more affordable high speed Internet access to cater for online consumers who require high bandwidth in the delivery of digitised products such as computer software, music, videos and games via the Internet. This can be achieved by establishing a 2Mb broadband network connection, where a fast connection to the Internet that is always in active mode and which is up to 40 times faster than a standard dial-up connection.. This means that one can send and receive vast amounts of data and information up to ten times faster than a standard dial-up connection.

Establishing a one-stop centre for retailers and merchants who intend to operate an online retailing business. The main aim is to provide necessary advice and quick solutions to retailers and merchants in marketing their products via the Internet may be helpful too. Among the services that can be provided by the one-stop centre are consultancy services, multimedia applications development, content creation, website/application hosting facilities and portal services.

Although the government has taken several key steps in supporting and promoting the growth of e-commerce in the country, nevertheless they can still continue to play their role especially in accelerating the development of retail e-commerce, which is currently lacking compared to other more developed nations. In this respect, the Government needs to establish commercial codes that govern commercial transactions between businesses and consumers through the Internet. These commercial codes and practices will serve as a benchmark for online retailers in covering various aspects of online shopping practices including consumer privacy, security and resolution of disputes. By having these commercial codes and practices, the Government would be able to verify and certify online retailers that meet the requirements of the commercial codes, thus helping to raise trust and confidence in consumers to shop online.

Sales tax on Internet transactions should not be imposed by the Government at this introductory stage of online shopping as it will

have a negative impact on consumers' decision to shop online. However, even if a sales tax is imposed on Internet transaction, it would be difficult for the Government to track the transaction especially if it involves digitized products which is electronically delivered to consumers, such as computer software. The Government should instead introduce tax breaks and other incentives for companies that are involved in online shopping and other e-commerce activities. This will encourage more retailers and merchants to market their product and services via the Internet. Hence, if these steps are implemented as soon as possible, this will definitely accelerate the adoption of the Internet as an effective medium of online shopping.

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