Determinants of Online Shopping Intention

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ABSTRACT

The internet has become a key medium for the purchase of products and services in virtual markets and has effectively linked all countries and business. It has been estimated that the internet market is worth $300 billion in 1995. Through the internet, electronic commerce offers a tremendously wide variety of electronic business opportunities. One of them is online shopping which has become the third most popular internet activity after e-mail or instant messaging and web browsing. Malaysia is ranked 17th among 27 countries across Europe, Asia-Pacific and North America in terms of the percentage of internet users shopping online. Even though this method has started to win hearts of Malaysian consumers, the factors influencing the willingness to shop online are still unknown. Thus, the general objective of the study is to examine the factors that influence consumer's online shopping intention (dependent variable). The main independent variables are demographic, trusts, quality and loyalty to website visited. A 100 percent response rate was obtained from students sampled randomly. Findings indicate that quality and loyalty contributed 26.8 percent ($R^2 = 0.268$) and 6.1 percent ($R^2 = 0.061$) respectively to the variance in online shopping intention. Implications of the study are discussed.

1.0 INTRODUCTION

The increased globalisation of the world economies has created many opportunities for marketers. Marketing through the internet is one such unconventional form of marketing that many companies have turned to. The internet market is a huge and growing market with over $300 billion worth of goods sold in 1995 (Tan, 1999).

The number of web sites has grown even more rapidly than the Internet itself. Ranganathan and Ganapathy (2002) defined website as store houses of information. Base on researchers at Netcraft Computer Surveys and other sources, the number of web sites is currently estimated to be over 30 million. As more people gain access to the web, interest in using the web to conduct business will increase and the variety of non-business uses will become even greater (Schneider. 2002): A different group of shoppers differ significantly in their online shopping attitudes (Kau, Tang, and Ghose, 2003). This attitude makes a different reaction towards website.

Security is one of the most challenging problems faced by customers who wish to trade in the e-commerce world. Besides, consumers' willingness to purchase on the Internet may vary depending on the attributes that Internet retailers offer for online shopping like site quality, privacy, etc.

Based on UCLA Centre for Communication Policy (2001), online shopping has become the third most popular Internet activity after e-mail or instant messaging and web browsing. Another survey that have been done by marketing research firm Taylor Nelson Sofres (TNS), Malaysia is ranked 17th among 27 countries across Europe, Asia-Pacific and North America in terms of the percentage of internet users shopping online.

According to Yoo, Boonghe and Donthu (2001), *"internet shopping is online versions of physical retail stores where all transactions and their relevant activities take place in online cyber spaces".* The study from Phau and Poon (2000), predicts that overall e-commerce trade will reach US$16,538.18 million in 2001 for the Asia Pacific Region. With the rapid growth of E-commerce and online consumer shopping trends, the importance of understanding customer trust, quality and loyalty in website have come into sharper focus. To address this need, this research tries to identify factors that are salient to consumers when forming attitudes and intention to shop through the web.

Generally the objectives this study is to explore the factors that influence customer intention to shop through online shopping. Consequently, the specific objectives of this research are:
a) to examine the relationship between website trust and intention to online purchase.
b) to examine the relationship between website quality and intention to online shopping.
c) to examine the relationship between the website loyalty and intention to online purchase.

Consequently the hypotheses stipulated for this study are as follows:

H1 The higher the site trust, the higher the intention for online shopping

H2 The higher the site quality, the higher the intention for online shopping

H3 The higher the site loyalty, the higher the intention for online shopping

2.0 METHODOLOGY

Population and Sample

The target population in this study are students at Universiti Utara Malaysia including graduate students and under graduate students. The size of sample depends on the basic characteristic of the population,

the type of information required and the cost involved. In this case, the sample of the study focuses on the students who had browsed any online shopping website.

Collection of data procedures

Questionnaires were personally distributed to 84 students selected randomly according to undergraduate programs, masters programs and PhD programs. All students returned the completed questionnaires for further analysis.

Conceptual Framework
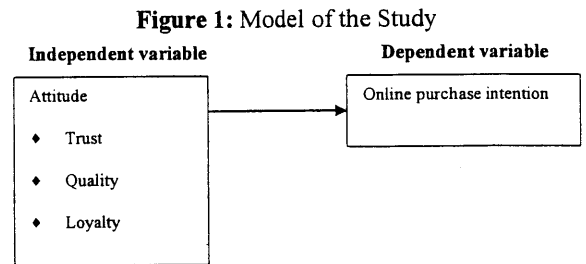
Conceptual definition

The dependent variable in this study is online purchase intention. The independent variables, which are hypothesized, to be related to the dependent variable are loyalty, quality and trust. For more details see Figure 1 below.

Figure 1: Model of the Study

Variables	References
Trust Trust in the Internet store as a consumer's willingness to rely on the seller and take action in circumstances where such action makes the consumer vulnerable to the seller. Quality Terms of the service quality that provided to consumers. Loyalty Customer loyalty as a specific attitude to continue in an exchange relationship based on past experiences.	Jarvenpaa and Tractinsky (1999)
Intention to online purchase Consumer willingness to make purchase in an internet store.	Li & Zhang (2002)

Questionnaire Design

A total of 28 items were used to capture the subjects' assessment of website trust, loyalty, quality and intention to purchase online. Each of the components has 7 items. Likert scale ranging from 1 for strongly disagrees and 5 for strongly Agree are utilised.

Data Analysis Techniques

Both descriptive and inferential statistics were used in this research.

i) Descriptive Analysis

To analyze the respondents' demographic factors and their responses towards every item, descriptive statistics including mean, frequency and percentage were used to show result. Other analysis methods are as follows:

* Pearson Correlation Analysis
  To determine the relationship of all variables, the tool to be used is correlation. Using this tool an

analysis of relationships could be made for trust with intention, quality with intention and loyalty with intention.

* Regression
The study will be continued with more detail analysis using regression method. Regression model is created from the study. The model is:

$Y = a + \beta 1 X1 + \beta 2 X2 + \beta 3 X3$ where,

Y = Intention to online purchase
$X1$ = Quality
$X2$ = Loyalty
$X3$ = Trust
a = constant value of the intercept on the Y axis.

3.0 FINDINGS

Table 1 presents the descriptive statistics for all items used in the model. Later these items were computed into its mean average score to represent each variable in the study. See Table 2.

Table 1: Questionnaire items

Statements	Mean	Standard Deviation
TRUST		
1) Trusting online shopping is not difficult	2.97	1.12
2) I have positive experience in using the internet	3.73	0.98
3) I feel safe in my transactions with the website	2.56	0.97

·) I trust the website administration will keep my personal information safe	3.00	.085
i) Internet shopping is unreliable	2.68	0.85
5) Internet shopping cannot be trusted; there are too many uncertainties	2.43	0.83
7) I tend to trust online shopping even though I have little knowledge of it.	2.42	0.84
QUALITY		
1) The likely quality of this site is extremely high	3.56	0.83
2) The site is easy to navigate	3.68	0.79
3) The site is of high quality	3.42	0.78
4) This site must be of very good quality	3.37	0.83
5) This site appears to be of very good quality	3.33	0.72
6) This site creates a memorable experience	3.06	0.81
7) The site is easy to find	3.63	0.89
LOYALTY		
1) I will increase my interest to browse this site when more goods/services are available through them	3.52	0.74
2) I will visit this site even the selection/variety of goods is poor	2.65	0.80
3) I prefer to browse this site	3.49	0.84
4) I will not to shop on other sites as long as I can access this site	3.00	0.88
5) I am loyal to this website	2.93	0.88
6) I consider myself to be loyal to the site that I had browsed	3.11	0.82
7) This site would be my first choice	3.04	0.86
INTENTION TO ONLINE PURCHASE		
1) I will definitely buy products from this site in the near future	3.190	0.80
2) It is likely that I will purchase through this site in the near future	3.32	0.75
3) I expect to purchase through this site in the near future	3.32	0.70
4) I will return to this website in the future	3.29	0.87
5) I will consider purchasing from this website in the longer term	3.39	0.74
6) I intended to purchase through this site in the near future	3.29	0.84
7) I will consider purchasing from this website in the short term	3.11	0.84

Table 2: Descriptive Statistics of Measures

Variable Type	Variable Name	N	No. of Item	Minimum Score	Maximum Score	Actual Study Means (SD) N=84
Dependent: Y						
	Intention to purchase online	84	7	1.00	4.29	3.27 (0.54)
Independent:						
X1	Trust	84	7	1.00	4	2.83 (0.50)
X2	Quality	84	7	1.86	5	3.44 (0.52)
X3	Loyalty	84	7	1.86	4	3.11 (0.48)

Demographic Profile of Respondents

As illustrated in Table 3, 47.6 % of the respondents are males and 52.4 %) are females. The average age of the respondents is 26 years old. Majority of the respondents (64.3%) are between 20-25 years old. There are more full time students (67.9%) compared to part-time students. Most of the respondents (55%) are unemployed. The majority of the respondents (54.8%) are pursuing a degree program, 41.6 percent taking Master program and 3.6 percent are taking PhD. The majority of the respondents (74%) have purchased goods through the internet.

Table 3: Profile of Respondents

Variables	Number	Valid Percent (N=84)
Gender:		
Male	40	47.6
Female	44	52.4
Age:		
20-25	54	64.3
26-30	17	20.2
31-35	6	7.2
36-40	5	6
41-45	1	1.2

46-50	1	1.2
Mean age = 25.93		
Programmed taken in UUM:		
Doctoral of Philosophy (PhD)	3	3.6
Master	35	41.6
Degree	46	54.8
IT subject taken		
No	34	40.5
Yes	50	59.5
Status		
Full time basis	57	67.9
Part time basis	27	32.1
Employment		
Employed	29	34.5
Unemployed	55	65.5
Number of times product bought		
on the Internet	22	26.2
Never	54	64.2
Seldom	5	6.0
Occasionally	3	3.6
Often		
Years of experience with Internet		
1 years	1	1.2
2 years	1	1.2
3 years	15	17.8
4 years and more	67	79.8
Highest academic qualification		
Master	3	3.6
Degree	33	39.3
Diploma	26	30.9
Certificate	11	13.1
HSC	11	13.1

Reliability of the study

Reliability coefficients of the four variables are presented in Table 4. All alpha coefficients were above the 0.60 level, with two of the four variables having alpha coefficients above the 0.75 level. Therefore the variables were sufficiently reliable to conduct reasonable tests of the hypotheses.

Table 4: Reliability Results

Variable Type	Variable Name	No. of Items	Cronbach Alpha Pilot study (N=30)	Cronbach Alpha Actual study (N=84)
Dependent :				
Y	Intention to online purchase	7	0.85	0.80
Independent:				
X1	Trust	7	0.78	0.60
X2	Quality	7	0.75	0.76
X3	Loyalty	7	0.89	0.67

Correlation Results

Table 5: Correlation Results

Variable Type	Y	X^1	X^2	X^3
Dependent Y= Intention to online shopping	1.00			
Independent X^1= Trust X^2= Quality X^3= Loyalty	0.40** 0.52** 0.50**	1.00 0.45** 0.43**	1.00 0.57**	1.00

* Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)

The output in Table 5 indicates that there are significant and positive relationship between trust, quality, loyalty and age and intention to online shopping. The relationship between trust and intention is r =0.40. This means that trust has moderate relationship with intention. Quality and loyalty have a strong relationship with intention with coefficient value r = 0.52 and r = 0.50.

In the table below (Table 6), quality accounted for 26.8 percent in the variance of Y (intention to online shopping) followed by loyalty, which accounted for 6.1 percent variance of Y. From these results, it was apparent that two dimensions (quality and loyalty) were consistently more significant than the other dimension (trust). This implies that quality and loyalty are two factors that could influence consumer intention to online shopping.

Regression Results

Table 6: Regression Results

Dependent variable Y = Intention to online shopping
R= 0. 574
R^2= 0.329
Adjusted R^2 = 0.313
F Change = 7.389   Sig. F = 0.008   N = 84

Variables	$R^2\triangle$	B	Beta	T	Sig. t
Constant		1.011		2.796	0.006**
Quality	0.268	0.356	0.346	3.119	0.003**
Loyalty	0.061	0.334	0.301	2.718	0.008**

**Correlation is significant at the 0.01 level (2-tailed)

4.0 DISCUSSION

Two variables vis-a vis quality and loyalty appears to be significant predictors of intention to shop online. The higher the website quality, the higher the intention for online shopping. The respondents show that quality site is one of factors that make them intent to online shopping. An attractive website makes them easy to navigate the website. The results of Lynch, Kent, & Srinivasan, (2001) also indicated that the site quality explains purchase intentions especially for high touch goods such as t-shirts, which is known as experience products, but not for low-touch goods such as CD players (search products). Mostly, respondents visited Airasia website and followed by Amazon website. These website were preferred maybe due to the website design, which is more user-friendly, attractive appearance or maybe the website was a priority choice to them than others site.

The higher the website loyalty, the higher the intention for online shopping. The finding of the present study supports the hypothesis that loyalty has a positive relation to willingness to online shopping. There is a limited study about loyalty toward intention to online purchase to support this finding. Mostly loyalty was studied along with customers' satisfaction. It can be assumed that when the respondents revisit to the site they will be loyal to the website. The more frequent respondents visit a website, the higher probability to buy on that website.

Findings from such a research study, coupled with the findings from this research will help marketers to devise marketing strategies to inform and attract customer to their e-businesses.

The higher the website trust, the higher the intention for online shopping. From the results, it was apparent that this hypothesis was rejected. It was found that the

consumers do not trust the website during online shopping. Maybe another factors are very important than trust like types of products. This result however is in contradiction with the result depicted in other research which shows trust level may affect consumers' willingness to purchase and propensity to return to the site (Lynch, Kent, & Srinivasan, 2001).

Thus, they need to know the two critical factors that will make consumers actually purchase and repurchase from them. For those companies making calculated efforts to target more buyers, these findings will help them to attract more buyers including new customers and retain the customer by designing market to compete globally on the net. Hence, it is essential that companies design web sites that are usable and functional to earn the trust of their customers that meet customer needs and they can do so quicker and with more precision

A better understanding of the consumer attitudes toward online shopping would be useful to business in the formulation of the marketing strategies. In any market, an essential perquisite for marketing strategy is the identification of target-able segments.

For future studies, the research can be extended in several ways such as focusing on how individual interact with website characteristics in determining purchase intentions. Another research also can be done in the same scope but across different regions. Maybe it will bring a great result. In addition, consumer attitude is a broad topic and this study is concerned only with one specific element: online purchase intention.

This research was conducted on the business to consumer (B2C) market. It is reasonable to assume that business market would react differently to some of the factors identified in this study. Investigating business to business (B2B) market attitude would improve the understanding mangers have of how to attract potential customers to their shopping sites.

In the real world, domestic retail markets offer consumers assurances that their interactions and purchases are covered by national legal and private sector consumer protection. However, in the global electronic marketplace, such protection cannot be taken for granted. The lack of face-to-face contact between business and consumers increases the need for a trustworthy electronic marketplace. So with working together, governments, business and consumer representatives can help to ensure that consumers in the electronic marketplace are provided with the same level of protection online that they enjoy in other forms of commerce.

REFERENCES

Jarvenpaa, S.L and Tractinsky, N. (1999). "Consumer Trust in an Internet Store: A Cross- Cultural Validation," *Journal of Computer Mediated Communication*. Vol. 5 (2).

Kau, A. K.,Tang, Y.E. and Ghose, S. (2003). "Typology of Online Shoppers," *Journal of Consumer Marketing*. Vol. 20 (2), p. 139-156.

Li, N. and Zhang, P.(2002). "Consumer Online Shopping Attitudes and Behavior: An Assessment of Research," *Eighth Americas Conference on Information Systems*. p 508-517

Lynch, P.D., Kent, R.J. and Srinivasan S.S. (2001). "The Global Internet Shopper: Evidence from Shopping Tasks in 12 Countries," *Journal of Advertising Research*. p.15-23.

Phau, I. and Poon, S.M. (2000). " Factors Influencing the Types of Products and Services Purchased over the Internet," *Electronic Networking Applications and Policy*. Vol. 10 (2)

Ranganathan, C and Ganapathy, S. (2002). "Key Dimensions of Business- to Consumer Web Sites," Information and Management," *Information and Management*. Vol. 39, p.457-465.

Tan, S.J (1999). "Strategies for Reducing Consumers' Risk a Version in Internet Shopping. *Journal of Consumer Marketing*. Vol. 16 (2) p. 163-180.

UCLA Center for Communication Policy. .The UCLA Internet report 2001: Surveying the digital future-year two.2001. (Paper available · from: http://www.ccp.ucla.edu/pdf/UCLA-Internet-Report-2001.pdf)

Yoo., Boonghe and Donthu, N. (2001). "Developing Scale To Measure Perceive Quality of an Internet Shopping Sites (SITEQUAL)," *Quarterly Journal of Electronic Commerce*. Vol. 2 (1) p.31-46.