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Factors affecting students' attitude toward online shopping

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To ensure the success of online business, it is important for the retailers to understand their targeted customers. The aim of this study examines the significance of attitude toward online shopping. The objectives of the study are two fold. The first section seeks to determine relationship between attitude towards online shopping with shopping orientations and perceived benefits scales. The second section investigates factors that influence peoples' attitudes towards online shopping. A five-level Likert scale was used to determine students' attitudes towards online shopping. A self-administered questionnaire, based on prior literature, was developed and a total of 370 post graduate students were selected by random sampling. The regression analysis demonstrated the determinants of consumers' attitudes towards online shopping. Additionally, utilitarian orientations, convenience, price, wider selection influenced consumers' attitudes towards online shopping.

Key words: Electronic commerce, internet, shopping, consumer attitude.

INTRODUCTION

Today Internet is not only a networking media, but also as a means of transaction for consumers at global market. Internet usage has grown rapidly over the past years and it has become common means for delivering and trading information, services and goods (Albarq, 2006). According to ACNielsen, more than 627 million people in the world have shopped online (ACNielsen, 2007). Forrester (2006) research estimates e-commerce market will reach \$228 billion in 2007, \$258 billion in 2008 and \$288 billion in 2009. By 2010 e-commerce will have accounted for \$316 billion in sales, or 13% of overall retail sales.

A study by International Data Corporation (IDC) Asia Pacific indicates that the future forecast for online shopping in Malaysia looks bright and promising (Louis and Leon, 1999). Malaysia moved towards advanced information, communications based on the growing trend of Internet users in the last three years and multimedia services. Moreover, 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, provides greater op-

portunities for Malaysians to conduct both business and shop online (Legard, 1998).

A mid-2005 survey by the Malaysian Communication and Multimedia Corporation (MCMC), only 9.3% of Internet users had purchased products or services through the Internet during the preceding three months. Taylor Nelson Sofres (2001) found that the penetration of Malaysians shopping online, that is, people who bought or ordered goods and services online in 2000 was 1% of the total younger population in Malaysia. Malaysia internet shoppers are relatively young, highly educated, having higher social status, and command a more favorable financial position.

Mohd Suki et al. (2006) conducted a study among Malaysian students and found that they enjoyed purchasing books/journals/magazines through the internet. ACNielsen also reported that, across the globe, the most popular items purchased on the internet are books 34%, followed by videos/DVDs/games 22%, airline tickets/reservations 21% and clothing/accessories/shoes 20% (ACNielsen, 2005).

Considering that Internet shopping, is still at the early stage of development, little is known about consumers' attitudes towards adopting this new shopping channel

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and factors that influence their attitude toward (Haque et al., 2006). The consumers' attitude towards online shopping is known as the main factor that affects e-shopping potential (Michieal, 1998). Attitudinal issues are also thought to play a significant role in e-commerce adoption. That means that, through motivation and perception, attitudes are formed and consumers make decisions. Thus, attitudes directly influence decision making (Haque et al., 2006).

Attitudes serve as the bridge between consumers' background characteristics and the consumption that satisfies their needs (Armstrong and Kotler, 2000; Shwu-Ing, 2003). Because attitudes are difficult to change, to understand consumers' attitudes toward online shopping, can help marketing managers predict the online shopping intention and evaluate the future growth of online commerce.

The proliferation of online shopping has stimulated widespread research aimed at attracting and retaining consumers from either a consumer or a technology-oriented view. The two views do not contradict but rather reinforce each other. Because the success of an electronic market largely depends on consumers' willingness to accept it. Due to this, we adopted the consumer-oriented view of online shopping in this study.

The consumer-oriented view focuses on consumers' attitude about online shopping. For example, online consumer behavior has been examined from the perspectives of perceptions of benefits toward online shopping (Bhatnagar and Ghose, 2004a, b; Garbarino and Strabilevitz, 2004; Huang et al., 2004; Liao and Cheung, 2001; Pavlou, 2003). The potential benefits of online shopping for consumers include convenience, various selection, low price, original services, personal attention and easy access to information, among others.

Moreover, shopping orientation (Korgaonkar and Wolin, 1999; Li et al., 1999; Safavi, 2007; Swaminathan et al., 1999). Therefore, it is thus important to recognize that numerous factors precede attitude formation and change. In addition, understanding consumer attitude toward online shopping helps marketing managers to predict the online shopping rate and evaluate the future growth of online commerce (Shwu-Ing, 2003).

The rest of the paper is organized as follows: first examines the relationship between consumer factors and attitude toward online shopping and second, analyzes consumer factors that influence attitude toward online shopping.

Literature review

Factors influencing peoples' online shopping attitude have been researched and documented in the context of traditional consumer literature. A review of empirical studies in this area shows that the theories of Reasoned Action (Fishbein and Ajzen, 1975) and Acceptance Model (Davis, 1989) are among the most popular theories used to explain online shopping behavior (Limayem et al., 2003). Therefore, the theoretical framework of this study

is based on this theories.

Online shopping orientations

Consumers have different personalities, which may influence their perception and how they perceive their online shopping behaviors (Wolfenbarger and Gilly, 2001). Consumers' personalities that lead to different shopping behaviors can be classified in two main orientations, that is, utilitarian and hedonic. According to previous studies, consumers' characteristics and goals have been found to influence their behaviors such as purchasing, revisiting intentions and attitudes toward a website (Shwu-Ing, 2003; Wolfenbarger and Gilly, 2001).

Utilitarian shopping orientations

Consumers who are utilitarian have goal-oriented shopping behaviors. Utilitarian shoppers shop online based on rational necessity which is related to a specific goal (Kim and Shim, 2002). They look for task-oriented, efficient, rational, deliberate online shopping rather than an entertaining experience (Wolfenbarger and Gilly, 2001). Their most important anxiety in online shopping is to purchases in an efficient and timely way to achieve their goals with least amount irritation (Monuwe et al., 2004).

Convenience orientation mentioned the utilitarian value of shopping, as a task-related, rational, deliberate and efficient activity (Babin et al., 1994). Therefore, shoppers with convenience orientations try to minimize their search cost as much as possible to save time or energy for activities other than shopping. In terms of the effect of utilitarian shopping orientation, Shim et al. (2001) posited that consumers who highly evaluate the utilitarian aspect of shopping will more likely use the Internet for an information source.

Furthermore, Moe (2003) argued that consumers' underlying objectives of visiting a web site will have an effect on their attitude of purchase on the web site. Results from her study also indicated a positive effect of a utilitarian orientation mode on purchase attitude. Based on these arguments, we present the following general hypothesis H1. There is positive relationship between utilitarian orientation and Attitude.

Hedonic shopping orientations

Consumers who are hedonist have experiential shopping behavior. Hedonists not only gather information to shop online but also seek fun, excitement, arousal, joy, festive, escapism, fantasy, adventure, etc. (Monuwe et al., 2004). These experiential shoppers want to be immersed in the experience rather than to achieve their goals by shopping online (Wolfenbarger and Gilly, 2001) and their perceived experiences also depend on the medium characteristics that induce enjoyable experiences (Soruce et al., 2005).

Hedonic (or experiential) shoppers were found to exist

in the online environment for information gathering purposes such as ongoing hobby-type searches, involvement with a product category, positive sociality and surprise and bargain hunting (Wolfenbarger and Gilly, 2001). They were more attracted to well-designed online shopping sites that were easy-to-navigate and visually appealing. Such Web sites offer great relationship building tools to establish a sense of community for consumers.

The degree of interactivity that a Web site offers is a strong factor in support of establishing this relationship, because experiential shoppers usually find more enjoyment in interactive environments than in pure text environments (Childers et al., 2001). For hedonic shoppers, a retailer can inform and influence their choices, because they do not have a specific goal in mind when visiting an online shopping site.

Generally, when hedonists are satisfied, the possibility of impulse purchases and frequency of visiting the website will increase (Wolfenbarger and Gilly, 2001). Therefore, the design of a website to attract experiential shoppers merits special attention to insure the conversion of shoppers' product navigation into purchases.

Childers et al. (2001) have confirmed that hedonic orientations for online shopping are important predictors of attitudes toward online shopping.

Some research findings have shown hedonic motivations to have powerful influences on shopping behavior in both traditional and online shopping environments (Menon and Kahn, 2002). Thus, for systems that are hedonic in nature, researcher can expect hedonic orientations provide to be significant with attitudes toward online shopping. Based on these arguments, we present the following general hypothesis H2. There is positive relationship between hedonic orientation and attitude.

Online shopping perceived benefit

Perceived benefits are advantageous results derived from attributes. The benefits can be physiological, psychological, sociological or material in nature (Gutman, 1982). Within the online shopping context, the consumers' perceived benefits are the sum of online shopping advantages or satisfactions that meet their needs or wants (Shwu-Ing, 2003).

There are many differences between a physical store and its electronic counterpart (Lohse et al., 2000; Mohd Suki et al., 2006). Most of the previous online shopping research has focused on identifying the attributes of online stores that promote success (Davis, 1989; Liu and Arnett, 2000; Muylle et al., 2004; Shih, 2004). Previous study found that internet shopping benefits was significantly associated with attitude toward online shopping and intentions to shop online (Jarvenpaa and Todd, 1997; Vijayasarathy and Jones, 2000).

In addition, Koivumaki (2001) reported a positive relationship between the online shopping benefits and the frequency of purchases made. Findings by Forsythe et al.

(2002) showed a positive and highly significant relationship between perceived benefits of Internet shopping and both frequency of shopping and amount spent online. Previous studies of online shopping have established two categories of benefits; intrinsic and extrinsic. Both are important in customers' selections to patronize the online stores (Liu and Arnett, 2000; Muylle et al., 2004; Shih, 2004).

Extrinsic benefits include features such as wide selection of products, competitive pricing, easy access to information and low search costs. Intrinsic benefits include features such as design and color (Shang et al., 2005). Consumers' shopping benefits may similarly impact shopping behaviors in the virtual environment. Moreover, Shwu-Ing (2003) found consumers' benefits perception comprised convenience, selections freedom, information abundance, homepage design and company name familiarity has a significant relationship with attitude toward online shopping.

Consumers' shop on the Internet because they find benefits over the Internet. Consumers usually compare the perceived benefits between shopping channels. The main motivation to shop online is that it is more convenient than to shop in-store. Convenience is the most prominent factor that motivates consumers to shop through the internet (Figure 1). Besides that, ease of search, good price/deal, good selection/availability, fun, impulse, customer service, and wider selection of retailers are additional reasons why people shop online (Delhagen, 1997; Khatibi et al., 2006). Based on these arguments, we present the following general hypothesis H3. There is positive relationship between the perceived benefits and the attitude.

Attitude toward online shopping

Attitude towards a behavior refer to "the degree to which a person has favorable or unfavorable evaluation of the behavior of the question" (Grandom and Mykytyn, 2004). Attitudes toward online shopping are defined as a consumer's positive or negative feelings related to accomplishing the purchasing behavior on the internet (Chiu et al., 2005; Schlosser, 2003a, b). Buying trends and internet adoption indications have been seen as the overall electronic commerce value in Malaysia rising from US\$18 million in 1998 to US\$87.3 million in 1999 (Mohd Suki et al., 2006).

In order to investigate consumer attitudes, we need to know what characteristics of consumers typically online shopping is and what their attitude in online shopping is. In simple terms, this means that there is no point having an excellent product online if the types of consumers who would buy it are unlikely to be online. In a situation of appropriate e-shopping environment if the product characteristics have electronic appeal and the consumers are familiar and feel confident in buying, e-shopping potential

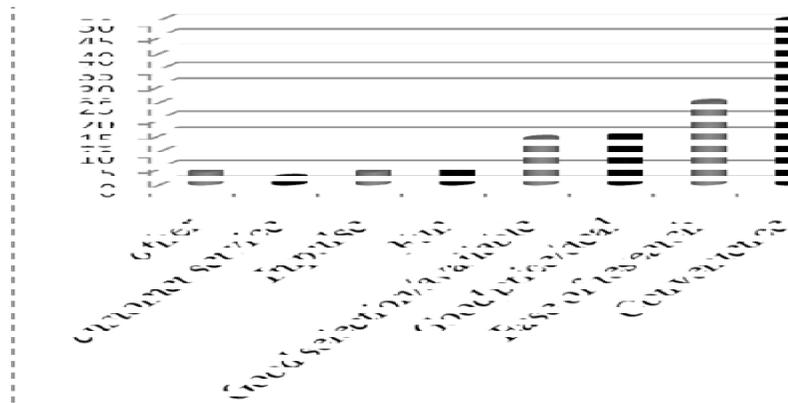


Figure 1. Reasons why people shop online. Source: Delhagen, 1997.

may still suffer from other setbacks.

In a greater sense, this may be caused by consumers' preference to use traditional shopping modes rather than shopping online. Alternatively, they may switch from ever visiting the store and their shifting tendency may ultimately reduce the profit margin of the physical stores. Therefore, evaluating attitudes of target consumers towards online shopping is critical. Consequently, the group with the higher attitude score should be the target market (Shwu-Ing, 2003).

According to the study by Armstrong and Kotler, (2000), a person's shopping choices are influenced by four major psychological factors: motivation, perception, learning and beliefs and attitude. That means that, through motivation and perception, attitudes are formed and consumers make decisions. Attitudes serve as the bridge between consumers' background characteristics and the consumption that satisfies their needs.

Therefore, it is thus important to recognize that numerous factors precede attitude formation and change. Consumers' characteristics such as personality nature, online shopping benefits and perceptions have also been found to influence consumers' online shopping behaviors and online shopping rate (Cheung and Lee, 2003; Goldsmith and Flynn, 2004; Shwu-Ing, 2003; Wolfinbarger and Gilly, 2001). Therefore, understanding consumer attitudes help marketing managers to predict the online shopping rate and evaluate the future growth of online commerce.

METHODOLOGY

Conceptual foundation and framework

The classic theory of reasoned action (TRA) (Ajzen and Fishbein, 1980) and TAM have been extensively adopted for explaining and predicting user behavior in an online shopping environment (Pavlou, 2003). TAM posits that actual system use is determined by users' behavioral intention to use, which is in turn influenced by their attitude toward usage. Attitude is directly affected by users' belief about a system, which consist of perceived usefulness and ease of use (Davis, 1986).

This belief-affect-intention-behavior causality has proven valid in the online shopping environment (Chen et al., 2002; Limayem et al., 2000). Researcher developed TAM to predict and to explain consumer acceptance of online shopping by extending the belief-attitude-intention-behavior relationship in TAM from the following perspectives:

- (i) Perceived usefulness and perceived enjoyment replaced by perceived outcome to cover perceived benefits of online shopping.
- (ii) Shopping orientations were added as antecedents of online shopping attitude. Shopping orientations (Lee et al., 2006) is identified from traditional retailing and marketing literature. The research model is shown at Figure 2.

The researchers applied the motivation, perception and personality factors in the context of attitude behavior models such as the Theory of Reasoned Action (Ajzen and Fishbein, 1980) and the Technology Acceptance Model (TAM) (Davis et al, 1989). In construction/development of TAM, Perceived usefulness and perceived ease of use can be instrumental in achieving valued outcomes, whereas perceived enjoyment can occur from the technology usage itself without any other reward. Perceived usefulness and perceived ease of use reflect the utilitarian aspects of online shopping and perceived enjoyment reflects the hedonic aspects of online shopping.

Therefore, in TAM, both utilitarian and hedonic aspects can be considered. Online shopping offers both hedonic and utilitarian aspects (Childers et al., 2001). Past research showing that perceived usefulness and perceived ease of use reflect utilitarian aspects of online shopping, whereas perceived enjoyment reflects hedonic aspects of online shopping (Monuwe et al., 2004). Therefore, in TAM, both utilitarian and hedonic aspects can be considered and also both utilitarian and hedonic aspects of consumer experience influence consumer attitude toward using a new technology or system.

The TRA and TAM claim that beliefs such as online shopping perceived benefits are completely mediated by attitude. The TRA assert that beliefs such as perceived benefits are completely mediated by attitude. Verhoef and Langerak (2001) also employed the TRA in a study of 415 Dutch internet shoppers and found that outcome beliefs had a significant influence on the attitude toward online shopping.

The perceived benefits of online shopping in relation to traditional store shopping are one of the driving forces in the adoption. Perceived benefits were also found to significantly influence attitude and intention to shop online (Limayem et al., 2000). The empirical findings supported the premise that beliefs in online shopping attri-

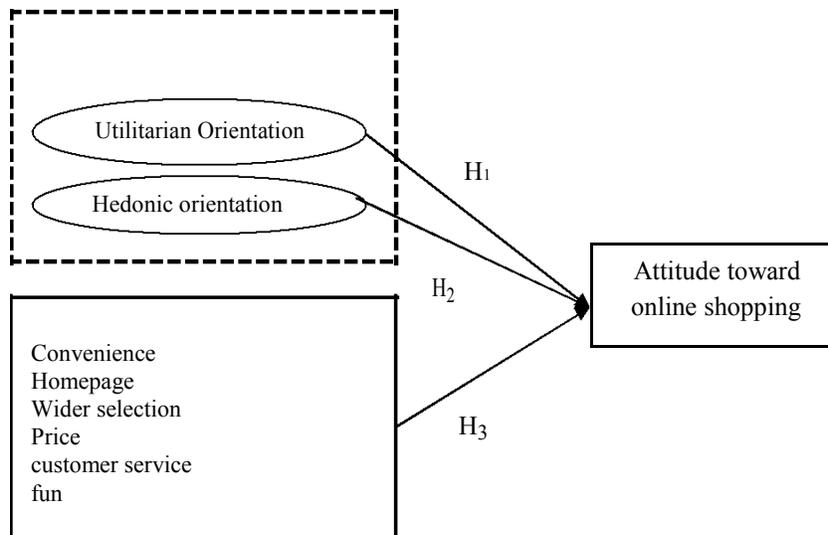


Figure 2. Research model.

butes were positively related to attitudes to online shopping.

Sample

Since university students have been found to be frequent users of technology and likely to buy products online and activities participate in online purchasing, as a result, postgraduate students were chosen as the target sample during the first semester of 2008. It must be mentioned; the majorities of postgraduate students are employed and have different online cards to purchase products through the internet. In addition, today's university students represent a significant part of the online buying consumers and a long-term potential market (Bruin and Lawrence, 2000).

A self-administered questionnaire was distributed to 500 students randomly in the selected faculties and institutes. All the selected respondents were enrolled in their respective faculties or institutes doing broad range of courses. Among 500 questionnaires that were distributed, approximately 405 were returned and only 370 fully answered questionnaires from the respondents were utilized.

The respondents' profile was categorized into groups namely; gender, age, income, education level and race. Table 1 illustrates this pattern. Frequency distribution profile of respondents showed that 64.3% of the respondents are female while 35.7% of the remaining respondents are male. The majority of the respondents 43.8% fall in the age range between 20 to 25 years of age and approximately 1.1% was above 40 years old. Population studied comprised Masters and PhD students, and post-doctoral researchers with frequency distributions of 78, 20 and 2.0% respectively.

Respondents having a monthly income ranging from RM 1000 to 2000 comprised the majority income group 37.3% followed by those with a monthly income within the range of RM 2000 to 3000 (9%). From the ethnic point of view, Malays comprised 44% of the study sample while Chinese and Indians comprised 40 and 13% respectively. Goods mostly purchased by students are "Computer/Electronics/Software" and "book/DVD/CD". Only a small proportion of purchases were "Toys".

Data analysis

The first objective was to determine relationship between utilitarian orientation, hedonic orientation and perceived benefits with attitude

toward online shopping. In order to test the three hypotheses, Pearson correlation was proposed. Moreover, the second objective of the study, was to determine the proportion of the variance in consumer's attitude toward online shopping that can be predicted by shopping orientations (utilitarian and hedonic) and consumer perceived benefits (convenience, homepage, price, wider selection, customer service and fun) and relative significant of each, the independent variables in explaining the dependent variable.

Multiple regressions were conducted to investigate second objective. This study employs user attitude toward online shopping as dependent variables and online shopping orientation and online shopping perceived benefits as independent variables.

RESULT AND DISCUSSION

To determine relationship on attitude toward online shopping

H1: There is positive relationship between utilitarian orientation and attitude

The relationship between attitude toward online shopping and utilitarian orientation was investigated using Pearson product-moment correlation coefficients. Table .2 illustrates this pattern. From the results, the strongest linear relationship was found to exist between attitude toward online shopping and utilitarian orientation ($r = .596$, $P\text{-value} = 0.000$). Since the average score is $p < 0.01$, hypothesis 1 is accepted.

This finding was supported by theory acceptance model (TAM) that utilitarian orientation aspect of consumer experience influence consumer attitude toward using a new technology or system (Lee et al., 2006). Since utilitarian orientation of online shopping reflects usefulness and ease of use aspects (Monsuwe et al., 2004).

Moreover, Li et al. (2002) suggested that future research investigate the effects of utilitarian shopping orientations on online shopping adoption. The present study

Table 1. Demographic characteristics of respondents.

Variables and categories	F (N = 370)	%
Gender		
Male	132	35.7
Female	238	64.3
Age (Years)		
20-25years	162	43.8
25-30	108	29.2
30-35	61	16.5
35-40	35	9.5
More than 40 years	4	1.1
Level of education		
Master	290	78.4
PhD	72	19.5
Post-doctoral	8	2.2
Monthly Income		
Under RM1000	73	19.7
RM 1001-2000	138	37.3
RM 2001-3000	36	9.7
RM 3001-4000	82	22.2
Over RM 4000	41	11.1
Ethnicity		
Malay	165	44.6
Chinese	150	40.5
Indian	49	13.2
Others	6	1.6
Product purchase		
Food and beverage	29	5.35
Clothing/accessory/shoes	99	18.26
Toy	23	4.24
Computer/electronics/software	200	36.9
Book/DVD/CD	169	31.18
Others	22	4.05

Table 2. Pearson's correlation coefficients between shopping orientations and perceived benefits with attitude.

Variables	Atti	HO	UO	PB
Atti (Y)	1			
HO	0.492**	1		
UO	0.596**	0.067	1	
PB	0.734**	0.039	0.021	1

Atti = Attitude, UO = Utilitarian Orientation, HO = Hedonic Orientation, PB = Perceived Benefits; Notes: ** is significant at the 0.01 level (1-tailed) and * is at the 0.05 level (1 - d

answers this call: utilitarian shopping orientation as aspects of usefulness and ease of use had a significant positive relationship with attitude toward online shopping.

H2: There is positive relation between hedonic orientation and attitude

The relationship between attitude toward online shopping and hedonic orientation was investigated using Pearson product-moment correlation coefficients. As indicated in Table 2, the strongest linear relationship was found to exist between attitude toward online shopping and perceived online shopping benefits ($r = 0.492$, P-value = 0.000). Since the average score is $p < 0.01$, hypothesis 2 is accepted.

This finding was supported by the theory acceptance model (TAM) that hedonic orientation of online shopping reflects enjoyment aspect because hedonists seek fun, fantasy, and enjoyable experiences (Monsuwe et al., 2004). Thus, within TAM, hedonic orientation appears to influence consumer attitude toward online shopping

(Davis et al., 1989). Moreover, Moon and Kim (2001) indicated that playfulness as hedonic aspect significantly affects attitude and behavioral intention toward use of the World Wide Web. Hedonic value had the positive relationship with attitude toward online retailers, which is in line with Childers et al.'s (2001) findings. They tend to pursue hedonic experience by creating positive emotional arousal while purchasing and consuming products (Babin et al., 1994). The present study answers this call: hedonic shopping orientation as aspect of enjoyment had a significant positive relationship with attitude toward online shopping.

H3: There is positive relationship between the perceived benefits and the attitude

The relationship between attitude toward online shopping and perceived online shopping benefits was investigated using Pearson product-moment correlation coefficients. As depicted in Table 2, the strongest linear relationship was found to exist between attitude toward online shopping and perceived online shopping benefits ($r = 0.734$, $P\text{-value} = 0.000$).

The positive correlation coefficient of 0.73 indicates that as the score for attitude toward online shopping increases so do the rating for perceived benefits. Therefore, it showed that consumers' perceived benefits are highly and significantly correlated with attitude toward online shopping. Since the average score is $p < 0.01$, hypothesis 3 is accepted.

Therefore, Pearson correlation proved that there is a significant relationship between attitude and benefits. It is consistent with the earlier study of (Jarvenpaa and Todd, 1997; Vijayasathy and Jones, 2000) who found that Internet shopping benefits was significantly associated with attitude toward online shopping and intentions to shop online. Moreover, Shwu-Ing (2003) found consumers' benefits perception comprised convenience, selections freedom, information abundance, homepage design and company name familiarity has a significant relationship with attitude toward online shopping.

To predict consumers' attitude toward online shopping

The result of multiple regression analysis for attitude toward online shopping and factors of online shopping orientation, online shopping perceived benefits showed significant positive correlation for purchase convenience, price, wider selection and utilitarian orientation. R-squared ($R^2 = 0.66$) for relationship between convenience, price, wider selection, utilitarian orientation, and attitude, implies that the predictors explained 66 % of the variance/variation in the attitude toward online shopping. The value of test statistic indicates a statistically significant relationship between attitude toward online shopping and purchase convenience, price, wider selection, utilita-

rian orientation ($p < 0.05$, $p < 0.01$). Table 3 illustrates estimates of the model coefficients. The result is consistent with the findings that has been shown in the literature (Forsythe and Shi, 2003), consumers have generally revealed that their main motivation to use the Internet to shop that it is more convenient to shop online than in-store, wider selection of retailers and comparing price among retailer (Burke, 2002; Chiang and Dholakia, 2003; Rohm and Swaminathan, 2004). As a result, convenience and wider selection and price are the main determinant of attitude toward online shopping.

In terms of findings convenience is the most common factor that motivates consumers to shop online through the internet which is in line with (Chen and Chang, 2003; Fenech and O'Cass, 2001; Jarvenpaa and Todd, 1997; Karayanni, 2003; Kim and Kim, 2004; McKinney, 2004) findings.

Moreover, researchers have mentioned that time efficiency and convenience (24-hour availability of online storefront and accessibility from almost any location) have been found to be significant explanatory factors for Internet shopping adoption (Karayanni, 2003) and also provides consumers with a powerful alternative channel for making purchases.

The second 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. Furthermore, the number of online stores that consumers are able to visit online compared to far physical stores, thus, exceeds the number of providing them with a wider selection of products to choose from (Harn et al., 2006).

The third dominant factor that influences consumers to shop online through the internet is good price offered by online retailers.

The finding is consistent with the research done by Ghani et al. (2001) on online purchasing in general, the study identified price as the major factors influencing online purchase behavior. Online retailers are able to offer cheaper price because of the shrinking cost of information processing, lower operating cost and global reach provided by the internet (Rowley, 2000).

In addition, Strauss and Frost (1999) also identified the ease of comparing price as one of the most important motivator to online shopping. The simplest reason for consumers to purchase online is to save money from the cheaper price offered by online retailers compared to traditional channel.

Finally, in terms of shopping orientation, utilitarian orientation seems to have an effect on attitude toward online shopping. This result is consistent with that reported by Wolfinbarger and Gilly (2001) that 71% of shoppers were goal-oriented and had previously planned their most recent online purchase and 29% of shoppers were experi-

Table 3. Estimates of coefficients for the model.

Attitude dimension (Y)	B (unstandardized coefficients)	Std. error	Beta (standardized coefficients)	t	p-value
Constant	-5.513	0.750		-7.349	0.000
Convenience	0.800	0.050	0.437	16.121	0.000
Price	0.961	0.097	0.206	9.948	0.000
Wider selection	1.154	0.115	0.243	9.768	0.000
Utilitarian	0.273	0.053	0.115	5.196	0.000
homepage	-0.057	0.046	-0.019	-1.251	0.212
Hedonic	-0.050	0.028	-0.037	-1.780	0.076
Customer service	0.052	0.034	0.050	1.234	0.160
Fun	0.125	0.045	0.063	2.799	0.095

Notes: $R = 0.682$; $R^2 = 0.664$; Adj. $R^2 = 0.643$.

ential and had been browsing when they made a purchase. Therefore, online shopping is more likely to be goal-oriented rather than experiential.

Conclusion

This paper proposes a framework for enhancing our understanding of consumers' attitudes toward online shopping. The findings suggest that utilitarian orientations, convenience, price and wider selection are an important determinant of consumer's attitude toward online shopping. Moreover they have a significant positive impact on consumers' attitude toward online shopping.

Consumers' personality tendency was shown to affect their attitude toward online shopping. Findings was showed utilitarian consumers had higher affect on attitude while hedonic consumers had no significant effect with at-titude toward online shopping.

Therefore, finding from this study confirmed that shop-pers are goal-orientation and have previously been planning their most recent online purchase. Utilitarian shop-pers may be inclined to shop through internet in order to increase shopping productivity. On the other hand, consumers' tendency when doing online shopping would be more likely to be utilitarian than hedonic. Therefore e-re-tailers, which focus on utilitarian customers, should emphasize more user friendly function in order to provide utilitarian customers a way to find what they need efficiently.

Moreover, the next aspect of the study is online shopping perceived benefits. The findings of the study also implies that consumers are looking for more convenience (time and money saving), cheaper prices and wider selection when they shop online, making them as the dominant factors that motivates online consumers in Malaysia to shop online. Consumers who value the convenience, prices and wider selection of Internet shopping tend to purchase more online and more often.

A practical assessment of these dimensions revealed

That individuals who purchase online, perceived significantly greater benefit in terms of convenience and price. Clearly, shopping motivations explain consumer's adoption of the internet as a shopping medium and consequently contribute to innovation adoption research. Therefore, online retailers need to ensure that the online shopping process through their websites and made as easy, simple and convenient for consumers to shop online.

Moreover, online retailers need to provide competitive price for 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 which is expected to increase even further with the availability of intelligent search engines and comparing 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.

Therefore, the finding suggests that online retailers need to provide more connivance and competitive price and more variety products in order to attract online shop-pers to their websites and encourage them to make a purchase decision. However, this will lead to competition among retailers and the level of competition is expected to increase even further with the availability of intelligent search engines and comparing shopping agents that enable consumer to easily obtain product information and compare product offerings from various online retailers.

Limitations and future direction

It is necessary to recognize the limitations of the current study. Firstly, since the survey was conducted among a group of postgraduate students from Public University, the results should be interpreted with caution, particularly with respect to the generalization of research findings of Malaysian consumers as a whole. Next, the sample size

itself is relatively small. To accurately evaluate Malaysian consumers' perceptions of online shopping, a larger sample size is desirable.

Future research needs to focus on a larger cross section of Internet users and more diversified random samples to verify the findings of the current study. Moreover, to further studies clarity of the factors influence on attitude toward online shopping, other behavioral model could be used. Future investigation could also examine the causal relationships between factors and how consumers' attitude overall online shopping by employing a structural equation modeling technique. In addition, the final research model accounted for only a portion of the variance, $R^2 = .66$, in the dependent variable (attitude toward online shopping).

Certainly, there are other factors that influenced attitude toward online shopping, which have not been included in this study. Enhancement of the model by addition of other relevant variables could produce a model that has more clarifying power. Therefore, future research needs to select the other variables by means of other essential elements such as system, product/service and vendor-related factors that influence consumers' e-shopping behavior.

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