



## **EFFECTS OF PERSONAL FACTORS, PERCEIVED BENEFITS AND SHOPPING ORIENTATION ON ONLINE SHOPPING BEHAVIOR IN MALAYSIA**

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### **ABSTRACT**

This research investigates how personal factors, perceived benefits and shopping orientation affect consumer willingness to purchase online. Based on statistical analysis of a parsimonious sample drawn from the Klang Valley of Malaysia, this research found that online shopping orientations, perceived benefits and personal characteristics are positively associated with the attitude of purchase intention toward online shopping. This study reveals that shopper behavior mediates the relationship between online shopping orientations, perceived benefits, personal characteristics and purchase intention toward online shopping. Our findings show that trust, innovativeness and perceived benefits are the most common factors motivating consumers to shop online. Though other covariates play a significant role, both utilitarian and hedonic shopping orientations negatively associated and were not significantly associated with attitude to shop online. With a good understanding of target customers, online retailers in Malaysia can develop more effective and targeted online retail operations to meet new Internet shopping customer requirements and expectations aligned with personal factors and perceived benefits.

JEL Classification: M14, M31, M37

Key words: Online shopping, Perceived benefits, Purchase intention, Innovativeness, Malaysia

## 1. INTRODUCTION

Many studies have highlighted the benefits Internet shopping offers to consumers which include ability to shop 24/7 at anywhere, to search and browse product, to compare prices and to make payments with a few mouse clicks (Shim et al., 2001; Strauss and Frost, 1999; Alba et al., 1997; Hoffman, Novak and Chatterjee, 1995). The Internet is rapidly becoming the fastest growing shopping channel with 62 percent of Internet users having bought products from the Internet at least once over the first six months of 2004 (Aqute Research, 2004). However, creation of value added and effective interactions between websites (networks) and consumers is a main concern of every-commerce company in ensuring online business success. An understanding of how consumer needs and factors influence online shopping behaviors and intentions is a valuable tool in creating effective interactions.

Of course, different characteristics associated with consumers make it difficult to identify factors behind their online purchase behavior. Eventually, demographic characteristics such as gender, age, and ethnicity (Wu, 2003) also play a pivotal role in purchasing behavior. For example, younger Malaysians are more concerned about shopping and banking online. Some 82 percent of Malaysian university graduates were extremely concerned about unauthorized access or personal information misuse that influenced shopping orientation thus positively related to the customer online purchase intention (Unisys, 2008). Different consumers' personalities, broadly classified as utilitarian and hedonic shopping orientations influence their perception that affect consumer behavior in this virtual market space (Wolfenbarger and Gilly, 2001). Many previous researchers had focused on perceived benefits of online shopping orientation (Muyllé, Moenaert and Despontin, 2004; Shih, 2004; Liu and Arnett, 2000; Davis, 1989). In the online shopping context, benefits are what consumers think an online store can offer (Keller, 1993). Therefore, online retailers should develop more effective and focused online shopping orientation to optimize visibility of product offerings and encourage consumers to make purchase decisions (Rowley, 2000).

Many studies have posited new personal characteristics which are based on traditional models of consumer behavior, and examined under the Internet context (Butler and Peppard, 1998). Thus, this will lead to lack of clarity toward consumer online shopping orientation in the virtual environment compared to the traditional shopping behavior (Alba et al., 1997). Considerable differences exist between traditional

retail stores and online stores and the major difference is the availability and transparency of information over the Internet (Donthu and Garcia, 1999). The online store channel consequently improves and accelerates consumers' perceived benefits of information search behavior during their purchase-decision process, and reduces the traditional information asymmetry between buyers and sellers (Grewal et al., 2003). As a result, consumers, supported by online information and knowledge, share a more level playing field with retailers (Strader and Shaw, 1997). However, there is lack of understanding regarding how consumers actually incorporate such perceived benefits of information in their shopping decisions and how levels of information disclosure actually affect consumer decisions directly or not (Dellaert, Golounov and Prabhu, 2005). Marketers do not have a good grip of online consumers' personal characteristic and their purchasing behavior even in the electronic market (Bapna et al., 2004). Thus trying to fill the gap of understanding about Malaysian consumer behavior between shopping orientation, perceived benefits and personal characteristic towards online shopping purchase intention will be the main aim of this study.

## 2. LITERATURE REVIEW

Scholars in the online purchasing field have focused on the wide variety of issues that motivate online buying. Literature in this field highlights that online shopping orientations (Utilitarian and Hedonic), consumer's perceived benefits, which include, among others convenience, wider selection, price that affect the shoppers' actual action of purchase intention towards online purchasing motivate consumers to shop online (Voss, Spangenberg and Grohmann, 2003). Furthermore, studies also argue that consumer attitude also affect their decision to purchase online again. Literature suggests that Internet shoppers are more innovative than Internet non-shoppers and are well informed (Donthu and Garcia, 1999). They are also very demanding (Vrechopoulos, Pramataris and Doukidis, 1999). In Malaysia, studies on Internet users are in abundance (Ismawati and Ainin, 2004; Ramayah, Jantan and Aafaqi, 2003). A review of empirical studies shows that the Theory of Reasoned Action (Fishbein and Ajzen, 1975) and Theory of Acceptance Model (Davis, 1989) are among the most popular theories used to explain online shopping behavior (Khalifa and Limayem, 2003) (See Figure 1 and Figure 2).

FIGURE 1  
Model of Theory of Reasoned Action (TRA)  
(Fishbein and Ajzen, 1975)

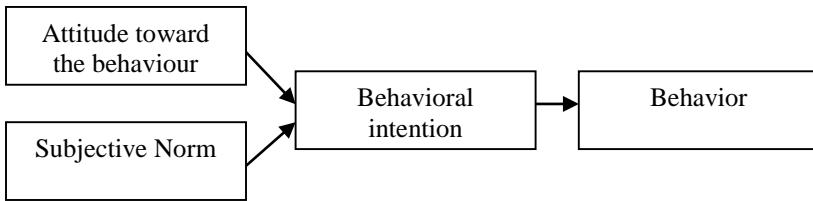
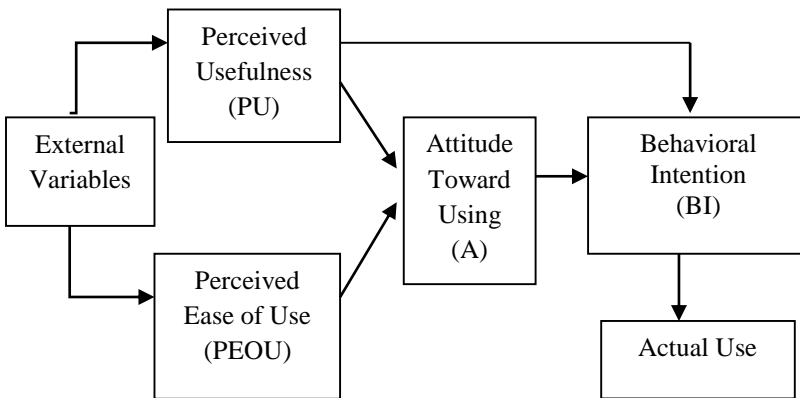


FIGURE 2  
Theory of Acceptance Model (TAM) (Davis et al., 1989)



In the Fishbein model, behavior has been viewed as a predictor of intention and finally actual behavior. The increasing popularity of online shopping has led to the emergence of new economic activities. To succeed in the highly competitive e-commerce environment, it is vital to understand consumer intention (Lee and Johnson, 2002). The Theory of Reasoned Action (TRA) in Figure 1 accentuates an individual’s behavior is an outcome of attitudes formed by perceptions as a tool to help explain consumer actions, in both online and offline contexts (Fishbein and Ajzen, 1975). TRA suggests that a person’s behavioral intention depends on the person’s attitude (A) about the behavior (BI) and subjective norms (SN) ( $BI = A + SN$ ). If a person intends to do a behavior then it is likely that the person will do it. In other words, “the person's perception that most people who are important to him or her think he should or should not perform the behavior in question.”

The Technology Acceptance Model (TAM) proposed by (Davis, 1989) in Figure 2 was derived from the TRA. It argues that individuals' cognitive belief influences their attitude to a technology, which in turn, influences intention to use the technology. Recently, some researchers have modified the TAM by adding an affective determinant-perceived enjoyment into the model, which is defined as an intrinsic motivation to use new technology (Igarria, Parasuraman and Baroudi, 1996). Corresponding to the innovativeness research in marketing literature, the technology acceptance model has also been shifting attention to the psychological/dispositional factors that affect people's technology acceptance decisions.

Research also shed light on the different personalities of consumers that 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 into two main orientations, namely 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 (Wu, 2003; Wolfenbarger and Gilly, 2001).

Scholars of utilitarian shopping orientations (Kim and Shim, 2002; Babin, Darden, and Griffin, 1994), proposed two personality traits-openness to experience and risk taking propensity; these deserve special attention in the e-commerce context. First, psychological tendency for taking risk might be at work when an individual is faced with an online purchase decision. People with stronger psychological tendency for seeking out novelty, regardless of their knowledge and ability level, would readily embrace online shopping. Technology acceptance researchers argue that cognitive structure is a main determinant of personal attitude toward an innovative technological system and utilitarian and hedonic orientations are the cognitive characteristics relevant to e-commerce and consumer attitude and intentions (Brucks, 1985).

Hedonic shopping orientation means hedonist consumers have experiential shopping behavior. They not only gather information to shop online but also seek fun, excitement, arousal, joy, festiveness, escapism, fantasy and adventure, and so forth (Kim and Shim, 2002; Babin et al., 1994). However, their perceived experiences depend on their enjoyable experiences (Sorce, Perotti, and Widride, 2005). Hedonic (or experiential) shoppers were more attracted to well-designed online shopping. The potential for enjoyment perceived by consumers later will increase the use of a technology. In the case of

online shopping, when hedonists are satisfied, the possibility of impulse purchases and frequency of visiting the website will increase (Wolfenbarger and Gilly, 2001).

However, the perceived benefits can be physiological, psychological, sociological or material in nature (Gutman, 1982). Within the online shopping context, the perceived benefits from the online consumers are the sum of online shopping advantage or satisfactions that meet their needs or wants (Wu, 2003). Findings by Forsythe and Shi (2002) showed a positive and highly significant relationship between perceived benefits of Internet shopping and both frequency of shopping and amount spent online. Previous study found that Internet shopping benefit was associated with attitude and intentions to shop online (Vijayasarathy and Jones, 2000; Jarvenpaa and Todd, 1997). Convenience is the most prominent benefit motivating consumers to shop online. The timing, location and buying process through the Internet are much more superior to other traditional methods of purchasing goods and services (Hanson, 1999). Besides, consumers seek out specific or unique products and services based on their personal characteristics and perceived benefits whereby there is a relationship between uniqueness and purchasing behavior (Schneider and Fromkin, 1980).

As part of the informativeness, the high degree of homepage interactivity between the user and the channel has caught attention. Homepage interactivity may include reciprocity in information exchange, information on demand, response contingency, content customization, and real-time feedback (Alba et al., 1997). Homepage may be enhanced by making the media richer and fun by text, audio, and video channels separately or as a multiplex. Webpage graphics had better impact on text-based information (Chau, Au and Tam, 2000). In terms of fun, researchers identified five dimensions of interactivity: playfulness, choice, connectedness, information collection and reciprocal communication (Ha and James, 1998). For instance, when an advertisement pops up on a web page, the user can choose to click on it and find out more about the product and service. Users have a feeling of control, when given choice between “text only” and “text plus graphics”, select the language or use a search engine to find needed information (Williams, Rice and Rogers, 1988). Thus, homepage interactivity perceived as fun by the consumer will increase involvement and create awareness and website stickiness for online shoppers (Fortin and Dholakia, 2000).

Besides homepage interactivity, consumers also may require wider selections by purchasing new innovative products that others

cannot afford or are difficult to acquire (Burns and Krampf, 1995). Customized products by nature are different from standard products and consumers may prefer wider selections (Harris and Lynn, 1996) to accomplish materialistic or status aspiration objectives (Burns and Krampf, 1995). Therefore, usefulness and personalization have been identified as two components of the experiential customization (Childers et al., 2001; Novak, Hoffman and Yung, 2000) demonstrated relationship exists between wider selections and purchasing behavior. Studies have also revealed one of the main reasons for online shopping is competitive price; therefore, some online retailers frequently use price promotion to attract consumers and influence purchasing decision (Kocas, 2005). Consumers with support of product/price information from the Internet have chances to enhance their bargaining power to counteract sellers and hence such support influences purchasing choice.

Another key factor influencing purchase choice is customer service (Blodgett, Wakefield, and Barnes, 1995). In the context of traditional channels, customer service is defined as “a process for business to provide significant value-added benefits to the customers in a cost effective way” (La Londe, Cooper, and Noordewier, 1988). Ultimately, customer service is the key to customer satisfaction, customer loyalty, and market share (Innis and Londe, 1994). Customer service has two aspects. The first is related to how business responds to customer complaints (Goodwin and Ross, 1990). The other one is associated with attributes such as responsiveness level, reliability, accuracy and trust. As highlighted by many studies (Friedman, Kahn Jr., and Howe, 2000; Jarvenpaa, Tractinsky and Saarinen, 2000), trust is critical in Internet shopping. Consumers could overcome their fear, derived from perceived risk of Internet shopping, by building up trust and involving in a website, or even in the entire Internet shopping environment since involvement and risk-taking propensity deserve special attention in the e-commerce context. Psychological tendency for taking risk might be at work when individuals face the decision whether or not to purchase online.

Basically, involvement with these different objects leads to different responses or with purchase decision (Clarke and Russell, 1978). Product involvement has been hypothesized to lead to greater perception of attributes differences in perception of greater product importance, and greater commitment to brand choice (Howard and Sheth, 1969). Therefore, a measure of involvement might be developed that would pick up differences across people, objects, and

situations even if the same product elicits different involvement level across people (Lastovicka and Gardner, 1978). However, people with stronger psychological tendency for seeking out novelty, regardless of their knowledge and reading ability level, would readily embrace online shopping. It is reasonable to determine how these personality traits would affect attitude and behavioral intention. Online shopping would satisfy the cognition-attitude linkage toward online shopping for new and different experience with its innovative online features such as interactive communication between buyer and seller, or individual products and services. Crucially, the cognition-attitude linkage toward online shopping is influenced by rational beliefs and self-evaluation. However, some researches indicate that non-cognitive factors play an important role in influencing attitude. In particular, affect-related variable could explain significant variance in attitude independent of cognitive factors (Bodur, Brinberg, and Coupey, 2000).

Scholars also argue that personal characteristics are very significant in motivating consumers to purchase online. According to Armstrong and Kotler (2000), shopping choices are influenced by four major psychological factors: motivation, perception, learning and belief and attitude. Attitude serve as the bridge between consumer personal characteristics and the consumption that satisfies their needs. Therefore, consumer personal characteristics such as trust, involvement and innovativeness will influence their online shopping behaviors and online shopping rate (Wu, 2003; Wolfenbarger and Gilly 2001). Based on these related theories and literature, a conceptual model has been developed consisting of the independent variables (IV) of online shopping orientations, online shopping perceived benefits and personal characteristics. The mediating variable consists of shoppers' attitude to online shopping and the dependent variable (DV) of online shoppers' intention to purchase.

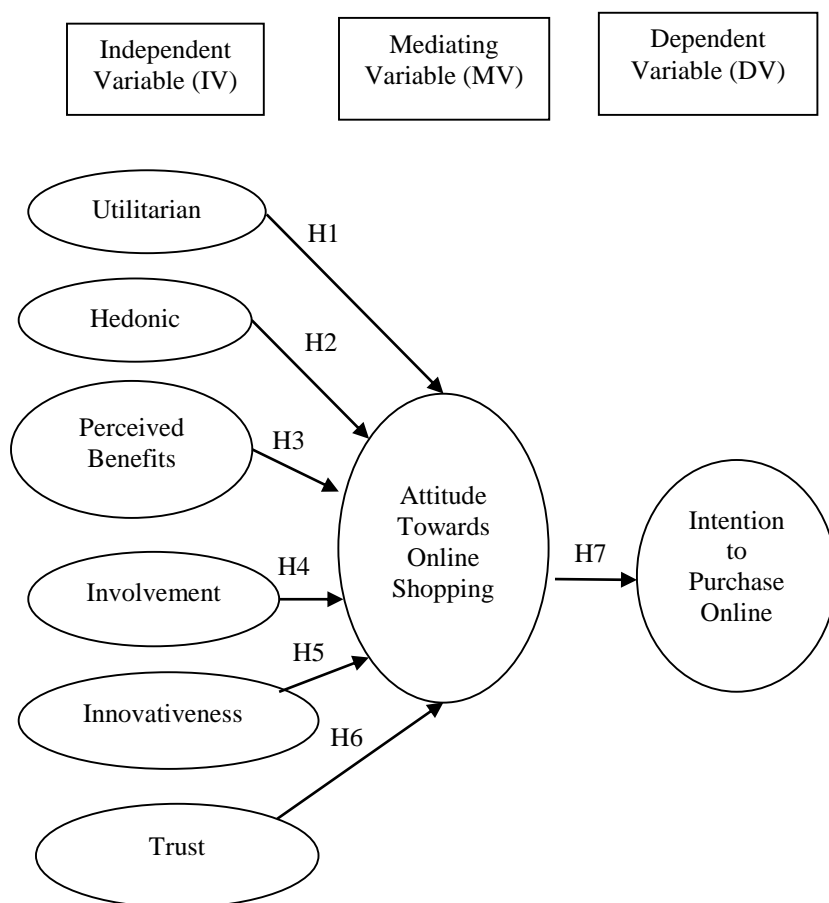
### 3. CONCEPTUAL MODEL

Based on the related theories and literature review, a conceptual model has been developed which consists of the independent variables (IV) of online shopping orientations, online shopping perceived benefits and personal characteristics. The mediating variable consists of shoppers' attitude to online shopping and the dependent variable (DV) of online shoppers' intention to purchase is shown as well. Figure 3 draws the basic research model to show the relationship between online shopping orientations and perceived benefits. Personal



characteristic had a significant influence on intention to purchase online. From the model given, online shopping orientations consist of utilitarian and hedonic orientations, online shopping perceived benefits consist of convenience, homepage, wider selection, price, customer service and fun and intention to purchase online. The conceptual model is developed to understand whether online shopper attitude plays a mediating role between the online shopping perceived benefits (convenience, homepage, wider selection, price, customer service and fun) and intention to purchase online, summarized as in the following Figure 3.

FIGURE 3  
Conceptual Model



### 3.1 INDEPENDENT VARIABLE: ONLINE SHOPPING ORIENTATIONS

Consumers' personalities can be classified as either utilitarian or hedonic orientation. Utilitarian consumers have goal-oriented shopping behaviors. They usually shop online based on a rational necessity related to a specific goal (Kim and Shim, 2002). Hedonic consumers have experiential shopping behaviors. The hedonists not only gather information to shop online but also seek enjoyable experiences (Monsuwe, Dellaert, and Ruyter, 2004). Hedonic and utilitarian consumers handle and interact with websites differently because of their personalities and motivations. Therefore, two main orientations related to consumers' personalities lead to attitude toward online shopping following the hypotheses are:

- H1: There is a significant relationship between utilitarian online shopping orientation and attitude towards online shopping.  
 H2: There is a significant relationship between hedonic online shopping orientation and attitude toward online shopping.

### 3.2 INDEPENDENT VARIABLE: ONLINE SHOPPING PERCEIVED BENEFITS

Online shopping perceived benefits consist of convenience, homepage, wider selection, price, customer service and fun. The homepage features such as design and color (Shang, Chen, and Shen, 2005) are perceived as the benefits as well. Consumers' shopping benefits may similarly impact shopping behavior in the virtual environment. Moreover, researchers found that consumers' benefits perception has a significant relationship with online shopping (Wu, 2003). Therefore there is a relationship between perceived usefulness and purchase intention. Following that, the hypothesis is:

- H3: There is a significant relationship between perceived benefits (convenience, homepage, wider selection, price, customer service and fun) of online shopping and attitude toward online shopping.

### 3.3 INDEPENDENT VARIABLE: PERSONAL CHARACTERISTICS

In this study, personal characteristics focused on trust, innovativeness and involvement are measured to determine their relationship toward purchase online. Studies show trust and consumer motivation have

significant relationships (Mayer et al.,1995). The consumer must also trust the transaction medium for online shopping. Innovativeness is another variable identified as influencing usefulness perception as an important indicator for technology acceptance. Besides, some people argue that the same product has different involvement levels across people –personal (Lastovicka and Gardner, 1978) and demonstrated that different purchase situations for the same products cause differences in search and evaluation or raise the level of involvement – situational (Clarke and Russell, 1978). This leads us to expect the following hypotheses to be accepted:

- H4: There is a significant relationship between trust and attitude toward online shopping.
- H5: There is a significant relationship between innovativeness and attitude toward online shopping.
- H6: There is a significant relationship between involvement and attitude toward online shopping.

#### 3.4 MEDIATING VARIABLE: ATTITUDE TOWARD ONLINE SHOPPING

The mediating variable plays an important role in capturing the consumer's feelings about shopping online. Attitude mediates the relationship between online shopping orientations, online shopping perceived benefits and purchasing intention to online shopping. This is because people tend to perform behaviors that are predicted to be favorable and would avoid ones that have a possible unfavorable outcome (Fishbein and Ajzen, 1975). External variables such as involvement, trust, innovativeness would affect user acceptance of technology through internal psychological variables, for example attitude toward intention to perform online shopping (Boninger, 1995). Therefore, the mediating hypotheses to determine online shopper attitude in relation to their action intention to purchase online are:

- Mediating H1: Attitude toward online shopping significantly mediates the relationship between utilitarian shopping orientation and intention to purchase.
- Mediating H2: Attitude toward online shopping significantly mediates the relationship between hedonic shopping orientation and intention to purchase.
- Mediating H3: Attitude toward online shopping significantly mediates the relationship between perceived benefits

(convenience, homepage, wide selection, price, customer service and fun) of online shopping and intention to purchase.

Mediating H4: Attitude toward online shopping significantly mediates the relationship between trust and intention to purchase.

Mediating H5: Attitude toward online shopping significantly mediates the relationship between innovativeness and intention to purchase.

Mediating H6: Attitude towards online shopping significantly mediates the relationship between involvement and intention to purchase.

### 3.5 DEPENDENT VARIABLE: INTENTION TO PURCHASE ONLINE

Attitude refers to self-evaluation of online shopping whether the consumer is naturally attracted by any novelty; new products; new selling methods or payment mode. Attitudes are difficult to change (Armstrong and Kotler 2000). Understanding consumer attitudes to online shopping can help to predict the Internet shopper intention to purchase. Following that, the hypothesis is:

H7: There is a significant relationship between attitude of online shoppers and intention to purchase.

A total of the 42 items of the independent variables, seven items of the mediating variables and eight items of dependent variables are measured based on a five-point Likert-type scale marked as “strongly disagree”, “disagree”, “neutral”, “agree” and “strongly agree”. Subjects are asked to express agreement or disagreement based on the five-point scale. The scale is also used in measuring the effects of the mediating variables. All the scales used in the questionnaire are carefully selected from the previous established scales in the same context. However, the scales have been re-modified according to the local context. The five-point Likert scale is chosen for measuring IV, DV and MV as it is able to tap the differences, the order, and the equality of the magnitude of the differences in the variables (Sekaran, 2003). In Table 1, this study also proposed and developed a scale to measure the construct of involvement via online shopping in Malaysia. Hence, a semantic differential scale was developed to capture the concept of involvement for online shopping.

TABLE 1  
Measuring the Involvement Scale via Online Shopping

To me shopping on the Internet is:						
Unimportant	1	2	3	4	5	Important
Boring	1	2	3	4	5	Interesting
Irrelevant	1	2	3	4	5	Relevant
Unexciting	1	2	3	4	5	Exciting
Unappealing	1	2	3	4	5	Appealing
Worthless	1	2	3	4	5	Valuable
Uninvolved	1	2	3	4	5	Involving
Not needed	1	2	3	4	5	Needed
Foolish	1	2	3	4	5	Wise

Table 2 presents the summary of research instruments, sources and the questionnaire format.

TABLE 2  
Summary of Instrument Variables and References/Sources

No.	Factors	Variables/ Dimensions	Definitions	Sources
1	SO (IV)	Utilitarian Orientation (U1-U6)	People look for task-oriented, efficient, rational, and deliberate shopping.	Babin et al. (1994) Kim and Shim (2002)
		Hedonic Orientation (H1-H6)	People that look for interesting and entertaining experiences.	Babin et al. (1994) Kim and Shim (2002)
2	PB (IV)	Convenience (C1-C6)	Convenience reflects area access of information about product, ease of ordering, potential of money saving and timely delivery.	Mathieson (1991) Brunel and Hansel (1996) Turban et al. (2002) Hui et al. (2006) Gurvinder and Zhaobin (2005)

TABLE 2 (continued)

No.	Factors	Variables/ Dimensions	Definitions	Sources
		Fun (F1-F5)	Consumer seeks out consumption experiences.	Chen and Wells (1999)
		Wider Selection (W1-W3)	Wider selection refers to online shopping offers more options to select.	Forsythe and Shi (2002) Mathieson (1991)
		Price (P1-P2)	Price - possibility of price comparison and also better price compared with traditional shopping.	Mathieson (1991)
		Customer service (S1-S5)	Customer service refers to customer-support, product, guarantee, return policy, 24-hours service, timely response, better service.	Vijayasarithy and Jones (2000) Mathieson (1991)
		Homepage (HP1-HP3)	Homepage refers to product display, personal-choice helper and promotion.	Mathieson (1991)
3	PC (IV)	Trust (T1-T7)	A consumer's trust on Internet concern about financial loss, privacy of personal information.	Jarvenpaa et al. (2000) Friedman et al. (2000) Mcknight et al. (2002)
		Innovativeness (IN1-IN7)	Innovativeness refer to deserve special attention in the context of e-commerce would affect behavior attention to purchase online.	Alavi and Joachimsthal (1992) Donthu and Gracia (1999) Kim and Prabhakar (2000) Jarvenpaa et al. (2000)

TABLE 2 (continued)

No.	Factors	Variables/ Dimensions	Definitions	Sources
4	ATOP (MV)	Attitude (A1-A7)	Attitude refers self-evaluation of online shopping whether are naturally attracted by any novelty; new products, new selling methods or new payment mode.	Davis et al. (1992) Taylor and Todd (1995)
5	IPO (DV)	Intention to Purchase Online (IP1-IP8)	The attitude-behavioral intention linkage implies that "people from intention to perform behaviors towards which they have positive affect". It shows that attitude does predict online shopping intention.	Peter and Olson (1996)

Note: Shopping Orientation (SO), Perceived Benefits (PB), Personal Characteristics (PC), Attitude Towards Online Purchase (ATOP), Intention to Purchase Online (IPO), Independent Variables (IV), Mediating Variables (MV), Dependent Variables (DV)

#### 4. METHODS

To test the above mentioned hypotheses, this paper runs different empirical specifications using regression analysis performed by using SPSS Windows Version 16.0 to evaluate the prediction of a dependent variable from one or more independent variables. In this study, multiple linear regressions run simultaneously since there are several independent variables involved. Sobel/Aroian/Goodman tests were used to determine whether a mediator carries the influence of an independent variable (IV) to a dependent variable (DV). The test will check whether the indirect effect of IV on DV (i.e., Via mediator) is significantly different from zero. 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 the Klang Valley, which has the highest concentration of Internet users in Malaysia. Eventhough the sampling method adopted has its limitations in terms of generalizability compared to other sampling methods (Zikmund, 2003; McDaniel and

Gates, 1998; Hague and Jackson, 1996), it is assumed that the sample represents the whole population of Internet users in Malaysia. Data collection involved responses from a self-administered questionnaire survey. Data were first screened and cleaned for outliers and missing values.

Besides, data analysis techniques used in this study consist of normality test, reliability test, factor analysis, simple and multiple regression and mediator test. Normality test was performed at the beginning stage by using SPSS. It is most likely that the distribution patterns of the characteristics being investigated in the population are also likewise distributed in the subjects drawn from the sample. A structured questionnaire was used to collect the necessary data which served as primary data to investigate Malaysians' attitude to online shopping. Therefore, some specific places were chosen for questionnaire distribution around the Klang Valley. The target sample was online shoppers in the Klang Valley since Klang Valley was selected as it has the highest Internet usage in Malaysia (Loh et al., 2003). University students were also selected in view of the experience they have in using the Internet for online shopping. Some studies did suggest that students are the most suitable group as young and competent consumers to determine their attitude toward online shopping based on their experience and background (Sorice et al., 2005). The places targeted include dine-in cafés with the potential respondents such as Old Town, Pak-Hailam Café, Bukit Bintang, Times Square and Jusco.

The survey was conducted mainly via face-to-face interview and also administered through e-mail and postage service. A survey questionnaire was only given to those who agreed to participate in the survey and those in the list of e-mails obtained from people who agreed to participate in a lucky draw. This step was taken mainly to avoid complaints from the respondents and also to increase the number of respondents who identify as online shoppers. This sample and scope are chosen as they represent a group of individuals who have the purchasing power and also the resources to access and use the Internet. Another service provider, Star Hub, offers free Internet access to the public in Kuala Lumpur and Petaling Jaya indicating Klang Valley has a greater attraction to the private sector's effort in promoting Internet access (Marican, 2000). A total of 379 questionnaires were distributed, and each of the responses received was screened for error, incomplete and missing responses. After the screening process 70 returned forms were considered as unusable and the sample size of 309 was considered complete and valid for final analysis and hypothesis



testing. In this study, factor analysis is carried out to avoid any inter-correlations among the variables. Some researchers suggested that at least 300 respondents are needed for factor analysis (Tabachnick and Fidell, 1996). Therefore, the total collected 309 respondents met the minimum requirement.

## 5. FINDINGS

### 5.1 RESPONDENT PROFILE

There is strong empirical evidence that consumer personal characteristics influence the e-shopping preference and they are differences by gender, age, social grouping and household income (Hung-Pin Shih, 2004; Shankar, Smith, and Rangaswamy, 2003; Wu, 2003; Dryden, 2001; Edward Dube, 2001). Consumer demographic characteristic such as gender, age, background are examples of background characteristics to determine behavioral processes that are motivational, perceptual and learning, attitude formation and decision-making tools to complete the activities that satisfy consumer needs (Hung-Pin Shih, 2004).

From Table 3, the most purchased online products are travel services at 51.8 percent from the total distribution. The second highest are clothing services (23.9 percent) followed by telecommunication products (20.4 percent), magazines (19.7 percent), gifts/flowers (16.5 percent), business services and computer related products (both at 15.5 percent), followed by electronics and appliances (11.3 percent). Supplementary vitamins and health products form 8.1 percent of the total distribution followed by hobby-related products (7.1 percent), business equipment and services (5.5 percent); home and DIY products have the lowest share (4.5 percent). E-ticketing, the new way of issuing and delivering tickets is becoming prevalent and is employed by many airline companies in efforts to reduce costs. This enables electronic management of ticket information and helps company tracking of expenditures besides facilitating corporate travel policies (Hopkin, 2005).

Therefore, web-based agents should offer the online shopping facilities based on the online buyer profiles and characteristics with the growing numbers of total 48.2 percent from the total respondents who purchased products via Internet through this agent and changing trends of buying behavior. It is not surprising that Malaysian consumers start to develop their interest in visiting some company websites (41.1 percent), Internet portals (25.9 percent), Auction (21.7 percent) and Media websites (13.3 percent).

**TABLE 3**  
**Respondent's Products Purchased Online Pattern**

Products Purchased Online	Purchase Before F(N=309)	Percentage (%)	Not Purchase F(N=309)	Percentage (%)
Gifts/ flowers	51	16.5	258	83.5
Books and magazines	61	19.7	248	80.3
Groceries /food / drinks	25	8.1	284	91.9
Electronics and appliances	35	11.3	274	88.7
Music, videos, CDs, DVDs etc	62	20.1	247	79.9
Clothing / accessories/ cosmetics	74	23.9	235	76.1
Business equipments and services	17	5.5	292	94.5
Services	48	15.5	261	84.5
Travel services	160	51.8	149	48.2
Computer related products	48	15.5	261	84.5
Home & DIY products	14	4.5	295	95.5
Hobbies related products	22	7.1	287	92.9
Telecommunication products	63	20.4	246	79.6
Site Purchased				
Web-based Agents	149	48.2	160	51.8
Companies website	127	41.1	182	58.9
Media website	41	13.3	268	86.7
Auctions website	67	21.7	242	78.3
Internet Portals	80	25.9	229	74.1

In Table 4, perceived benefits to purchase online are significantly correlated with convenience to pay online in a short time without any restrictions or privacy data exposure; 66.7 percent users prefer credit card payment followed by E-banking payment (37.5

percent), bank account transfer (26.9 percent), Paypal/Western Union (11 percent) and Bank Draft (4.2 percent).

TABLE 4  
Respondent's Preferable Medium of Payment during  
Online Shopping

Preferable Medium of Payment	Preferable F(N=309)	Percentage (%)	Not Preferable F(N=309)	Percentage (%)
Credit Card	206	66.7	103	33.3
E-banking Payment	116	37.5	213	62.5
Bank Account Transfer	83	26.9	316	73.1
Pay-Pal/Western Union	34	11	275	89
Cheque/Postal Order/Money Order/Bank Draft	13	4.2	296	95.8

## 5.2 MULTIPLE REGRESSION TEST

In this study, independent variables consist of utilitarian, hedonic orientations, perceived benefits, innovativeness, trust and involvement whereby independent variables are held fixed in order to understand how the typical value of the dependent variables (intention to purchase online in this study) changes when any one of the independent variables mentioned is varied.

The goal of linear regression is to find the line that best predicts Y from X. Linear regression does this by finding the line that minimizes the sum of the squares of the vertical distances of the points from the line. Linear regression does not test whether our data are linear (except via the runs test). The result from the multiple regressions will be an equation which shows the relationship between independent variable and the factors affecting it:

The general equation for the model is the following:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n$$

where

Y = Purchase intention

$\alpha$  = constant term

$\beta$  = coefficient

X =  $X_1, X_2, \dots, X_n$  are predictors such as utilitarian, hedonic, involvement, etc.

n = number of variables

Table 5 illustrates estimates of the model coefficients. Where  $\beta$ 's is the regression coefficient, representing the amount the dependent variable (Y), changes when the corresponding independent variable changes. The c is constant, where the regression line intercepts the y axis representing the amount the dependent y will be when all the independent variables are 0. The standardized version of the  $\beta$  coefficients is the  $\beta$  weights, and the ratio of  $\beta$  coefficients is the ratio of the relative predictive power of the independent variables. Associated with multiple regressions is  $R^2$ , multiple correlations, which is the percent of variance in the dependent variable, explained collectively by all of the independent variables. In order to run the regression test, factors related to each variable are grouped together and analyzed versus the dependent variable namely purchase intention in Table 6.

TABLE 5  
Coefficient Model Summary towards Intentions to  
Purchase Online Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1 (Constant)	0.562	0.159		3.544	0.000
Utilitarian	-0.063	-0.052	-0.068	-1.219	0.224
Hedonic	-0.051	0.042	0.066	-1.232	0.219
Involvement	0.016	0.005	0.173	3.358	0.001
Innovation	0.154	0.044	0.187	3.492	0.001
Perceived Benefits	0.146	0.067	0.135	2.171	0.031
Attitude	0.392	0.053	0.420	7.371	0.000
Trust	0.068	0.044	0.083	1.544	0.124

TABLE 6  
Dependent Variable: Intention Purchase Model Summary

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
1	0.724	0.524	0.513	0.39517

Note: Predictors: (Constant), Trust, Hedonic, Involvement, Utilitarian, Innovation, Attitude, Perceived Benefits

In Table 6,  $R$  is the multiple correlation coefficient between predictors and purchase intention.  $R = 0.724$ . This means that all the two variables explain 72.4 percent of the variance in purchase intention.  $R$ -square = 0.524 is medium. According to the coefficients of regression model, the sig. column shows the validity of the data; the data is valid if the sig. amount is less than 0.05. Therefore, based on the above findings, the regression model can be presented as:

$$Y (\text{Purchase Intention}) = 0.562 - 0.063 \times \text{Utilitarian} - 0.051 \times \text{Hedonic} + 0.16 \times \text{Involvement} + 0.154 \times \text{Innovation} + 0.146 \times \text{Perceived Benefit} + 0.392 \times \text{Attitude} + 0.068 \times \text{Trust}$$

The purpose of Sobel test is to test whether a mediator carries the influence of an IV to a DV. The  $a$ ,  $b$ , and  $c'$  are path coefficients. Values in parentheses are standard errors of those path coefficients. This test can be used to informally judge whether or not mediation is occurring, but Mackinnon and Dawyer (1993) and MacKinnon, Warsi, and Dwyer (1995) have popularized statistically based methods by which mediation may be formally assessed. These tests are conducted by using the web-based online calculator with the input value of coefficient and standard errors of the coefficients between the path of IV (Personal factors, perceived benefits and shopping orientation) mediator of attitude and mediator – DV (Intention to purchase online). The grouping of consumer online shopping behavior consisting of personal factors, perceived benefits and shopping orientation will generate the regression analysis predicting the mediator of attitudes in process 1. This will give  $a$  and  $Sa$ . Later, the regression analysis will generate the result of  $b$  and  $Sb$  in process 2 where IV and mediator of attitude predicting the DV of intention to purchase online. The summary of Sobel test result is displayed on Table 7 and the result shows that consumer online shopping behavior has significant effect on intention to purchase online whereby  $p < 0.5$ .

TABLE 7  
Sobel Test Result

Input	Types of Test	Test Statistic:	Std. Error:	<i>p</i> -value:
a=0.238	Sobel test:	0.750	0.084	0.453
b=0.263	Aroian test:	0.470	0.084	0.455
Sa=0.021	Goodman test:	0.571	0.832	0.452
Sb=0.35				

A correlation is a single number that describes the degree of relationship between two variables. In this study, Pearson Product Moment Correlation (called Pearson's correlation for short) has been used. When measured in a population the Pearson Product Moment correlation is designated by the Greek letter rho ( $\rho$ ). When computed in a sample, it is designated by the letter " $r$ " and is sometimes called "Pearson's  $r$ ." Pearson's correlation reflects the degree of linear relationship between two variables. It ranges from +1 to -1. A correlation of +1 means there is a perfect positive linear relationship between these variables.

The interpretation of correlation  $r$  shows as below.

$r = 0.10$ to $0.29$ or $r = -0.10$ to $-0.29$	Category "Small"
$r = 0.30$ to $0.49$ or $r = -0.30$ to $-0.49$	Category "Medium"
$r = 0.50$ to $1.00$ or $r = -0.50$ to $-1.00$	Category "Large"

According to the guideline, the correlation between shopping orientations, perceived benefits, personal characteristics, attitude and intention to purchase is medium positive ( $0.3 < 0.304 < 0.5$ ) and large positive ( $0.5 < 0.504 < 1.00$ ), suggesting a medium positive relationship between shopping orientations, perceived benefits, trust and intention to purchase online.

Table 8 shows the correlation test between the independent variables mediate the relationship of attitude toward online shopping with dependent variable of intention to purchase online.

By considering the results of the data analysis in support of or against the research hypothesis, the hypotheses in Table 9 is to determine relationship on intention to purchase toward online shopping between shopping orientations, perceived benefits and personal characteristics. The findings showed that all independent variables, which included online shopping orientations, perceived benefits and personal characteristics were positively correlated to the

attitude of purchase intention toward online shopping as presented in Table 9. This study also found that shopper attitude mediates the relationship between online shopping orientations, perceived benefits, personal characteristics toward purchase intention.

TABLE 8  
Pearson Correlation Test

		Intention to Purchase
Intention toPurchase	PearsonCorrelation	1
Utilitarian	Pearson Correlation	0.387
Hedonic	Pearson Correlation	0.409
PerceivedBenefits	Pearson Correlation	0.482
Trust	Pearson Correlation	0.486
Innovativeness	Pearson Correlation	0.543
Involvement	Pearson Correlation	0.540
Attitude	Pearson Correlation	0.655

By considering the results of the data analysis in support of or against the research hypothesis, the hypotheses in Table 9 is to determine relationship on intention to purchase toward online shopping between shopping orientations, perceived benefits and personal characteristics. The findings showed that all independent variables, which included online shopping orientations, perceived benefits and personal characteristics were positively correlated to the attitude of purchase intention toward online shopping as presented in Table 9. This study also found that shopper attitude mediates the relationship between online shopping orientations, perceived benefits, personal characteristics toward purchase intention.

Based on Table 9, the relationship between utilitarian orientation and intention to purchase toward online shopping was investigated using Pearson product-moment correlation coefficients. Table 8 illustrates this pattern. From the results, the medium positive relationship was found to exist between utilitarian orientation and intention to purchase toward online shopping ( $r=0.387$ ,  $p$ -Value = 0.000). Since the average score is  $p<0.01$ , hypothesis 1 is accepted. This finding was supported by the Technology Acceptance Model (TAM) that utilitarian orientation aspect of consumer experience influence consumer intention to purchase 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).

TABLE 9  
Summary of Hypotheses and its Findings

Hypotheses	Result
H1 : There is a positive relationship between utilitarian shopping orientations and attitude towards online shopping.	( $r=0.387$ , $p$ -Value = 0.000). Since the average score is $p < 0.01$ , hypothesis 1 is accepted.
H2 : There is a positive relationship between hedonic shopping orientations and attitude towards online shopping.	( $r= 0.409$ , $p$ -value= 0.000). Since the average score is $p < 0.01$ , hypothesis 2 is accepted.
H3 : There is a positive relationship between perceived benefits (Convenience, fun, wider selection, price, service, homepage) of online shopping and attitude towards online shopping.	( $r=0.482$ , $p$ -value= 0.000). Since the average score is $p < 0.01$ , hypothesis 3 is accepted.
H4 : There is a positive relationship between trust and attitude towards online shopping.	( $r=0.486$ , $p$ -value = 0.000). Since the average score is $p < 0.01$ , hypothesis 4 is accepted.
H5 : There is a positive relationship between innovativeness of personal characteristic and attitude towards online shopping.	( $r=0.543$ , $p$ -value = 0.000). Since the average score is $p < 0.01$ , hypothesis 5 is accepted.
H6 : There is a positive relationship between involvement and attitude towards online shopping.	( $r=0.540$ , $p$ -value = 0.000). Since the average score is $p < 0.01$ , hypothesis 5 is accepted.
H7: There is a positive relationship between attitude of online shopper and intention to purchase online.	( $r=0.655$ , $p$ -value = 0.000). The significance value of $p = 0.000 < 0.05$ , which mean is lower than alpha at 0.05 level of significance and the null hypothesis is accepted.

Second, as indicated in Table 9, the medium positive relationship was found between hedonic orientations and intention to purchase ( $r= 0.409$ ,  $p$ -value= 0.000). Since the  $p < 0.01$ , hypothesis 2 is accepted. This finding was supported by TAM that hedonic



orientation of online shopping reflects enjoyment aspect because hedonists seek fun, fantasy and enjoyable experiences (Monsuwe et al., 2004). Thus, within the TAM, hedonic orientation appears to influence consumer intention to purchase toward online shopping (Davis, Bagozzi, and Warshaw, 1989). Similarly, a medium positive relationship was found between intention to purchase toward online shopping and perceived benefits ( $R=0.482$ ,  $p$ -value= 0.000). Since the  $p < 0.01$ , hypothesis 3 is accepted. From the result shown in Table 8 and 9, it is clearly determined that the most significant relationship with intention to purchase toward online shopping is wider selection followed by service, fun, convenience and price from the perceived benefits. This is consistent with earlier findings that shopping benefits were significantly associated with intention to purchase in online shopping (Jarvenpaa and Todd, 1997; Vijayarathy and Jones, 2000).

A medium positive relationship was found between trust and intention to purchase toward online shopping ( $r=0.486$ ,  $p$ -value = 0.000). Since the average score is  $p < 0.01$ , hypothesis 4 is accepted. Therefore, Pearson correlation proved that there is a significant relationship between trust and intention to purchase trust. It is consistent with findings of earlier studies that trust is a critical area in the Internet shopping domain (Friedman et al., 2000; Jarvenpaa et al., 2000; McKnight, Choudhury and Kacmar, 2002). As depicted in Table 9, a the strongest positive relationship found between innovativeness and intention to purchase toward online shopping ( $r=0.543$ ,  $p$ -value = 0.000). Since the average score is  $p < 0.01$ , hypothesis 5 is accepted. The result of positive direct relationship between consumer innovativeness and adoption explains that individual traits are as important as perceived usefulness in making an individual adopt new technology. Thus, innovative shoppers are expected to comprehensively use the Internet shopping medium and are more likely to engage in web features when shopping for products online. This also been proved from previous researchers who suggested that a web trust model needs to include consumer innovativeness as one of the dimensions in understanding e-commerce adoption (Mayer et al., 1995).

Referring to Table 5, there is no significant relationship between utilitarian and hedonic shopping orientation and attitude of online shoppers. The results of multiple regression indicated a regression coefficient of (beta = -0.068 for utilitarian and significant value of  $p=0.224$ ), (beta = -0.066 for hedonic and a significant value of  $p=0.219$ ) which is larger than alpha at 0.05 level of significance which means that we fail to reject the first and second null.

Thus, it can be concluded that there is no association between online shopping orientations and attitude of online shoppers' intention to purchase. Nevertheless, the large positive relationship was found to exist between involvement and intention to purchase toward online shopping ( $r=0.540$ ,  $p$ -value = 0.000). Since the average score is  $p < 0.01$ , hypothesis 6 is accepted. The result also shows a direct effect between consumer involvement and adoption of Internet shopping. This indicates that consumer involvement is an essential contributor to Internet shopping adoption. It signifies long term interests in a domain (Bloch, 1981) and information retrieval is interactive, and interaction requires that both the user and system play different roles in performing different task (Beaulieu, 2000); thus, this affects the users' involvement level.

According to the result of multiple regression, the regression coefficient is: (beta = 0.173 and a significance value of  $p=0.001$  for involvement), (beta = 0.187 and a significance value of  $p=0.001$  for innovation), (beta = 0.135 and a significance value of  $p=0.031$  for perceived benefits), (beta = 0.420 and a significance value of  $p=0.000$  for attitude) and last (beta = 0.083 and a significance value of  $p=0.124$  for trust). Notice that the significance value of  $p = 0.000 < 0.05$ , means it is lower than alpha at the 0.05 level of significance and the null hypothesis 7 was accepted. Therefore, it can be concluded that there is a significant and positive association between personal characteristic, perceived benefits and attitude of online shoppers' intention to purchase at the 0.05 level of significance.

## 5. DISCUSSIONS AND CONCLUSION

The analytical results indicate relationship between online consumer's perception of the factors influencing their attitude of intention to purchase. The findings suggest that perceived benefits and personal characteristics are important determinants of user attitude toward online shopping. Moreover, they have a significant positive impact on attitude of online shoppers towards intention to purchase online. A practical assessment of these dimensions reveals that individuals who purchase online perceived significantly greater benefit in terms of convenience, fun, wider selection, service and price. Trust, innovative characteristic and more involvement factors motivate people to go shopping online. Specifically, although the result indicates no relationship between utilitarian and hedonic orientations with attitude of online shoppers' intention to purchase, the hedonic value of intention to purchase search being slightly more relevant than the

utilitarian value in terms of the intention to use the Internet for information search implies that Internet shopping malls might be better off by focusing on the experiential elements of shopping for consumer appeal.

Regression analysis showed that online perceived benefits especially fun, service and wider selection determine the positive result and significantly associated with attitude to shop online. The findings show that they are least significantly correlated for convenience, price and retailer's homepage toward consumer's attitude to shop online. The greater the benefits of Internet shopping perceived by consumers, the greater is the intention to use the Internet for information search. Thus, online marketers should stress the advantages of Internet shopping (e.g., time efficiency, accessibility, relatively lower prices, information comparability) directly or indirectly within the marketing communications process. Findings also show that innovativeness determines the highest positive value significantly correlated toward attitude to shop online compared to ease of comparing price as the lowest among other result for attitude to shop online. As discussed before, this result has to be confirmed by subsequent studies using more diverse samples.

Despite accomplishing its aim in recognizing the relationship between online shopping orientations, online perceived benefits and personal characteristics and intention to purchase online, this study is still subject to some limitations. First, the study was conducted in the Klang Valley only due to the high penetration of Internet Usage, but there are still many areas in other states for example Pulau Pinang, Johor Bharu and Selangor State also with high Internet penetration. Furthermore, this study only focuses on Internet shoppers but non-Internet shoppers also play an important role as prospective Internet shoppers who may have different behavior in relation to their motivation for purchase online. Next, the sample size itself is relatively small. To accurately evaluate Malaysian consumers' perceptions of online shopping, a larger sample size is desirable in future studies. Certainly, other external factors may influence attitude toward online shopping, which have not been included in this study. Additional option is to expand the sample population outside of the Klang Valley and divided into rural and urban area.

As for the measurement instruments, it should be noted that the scales used in the current study were context-specific; this prevented 'changeable setting' which can cause the meanings of items to vary according to study context (Giese and Cote, 2000).

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