

*Full Length Research Paper*

# Understanding consumer's internet purchase intention in Malaysia

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**This study aims to explore the antecedents relating to the extent of both the attitude and the purchasing intention of online shopping. It examined the factors influencing consumers' attitude toward online shopping and shopping intention from the Malaysian perspectives. From an e-commerce perspective, the understanding of the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM) could provide a valid basis in explaining and predicting consumers' intention towards adopting an online shopping behavior. A purposive sampling method was used and the sample comprised of 370 students studying at a public University in Malaysia. Data were collected via self-administered questionnaire. The data were examined using frequency and path analysis. Result of path analysis showed that trust and attitude had stronger direct effect on online shopping intention, whereas utilitarian orientation, convenience, prices wider selection, and income had stronger indirect effect on online shopping intention through the attitude towards online shopping as mediation. This paper outlined the key online shopping intention and events in Malaysia and pioneered the building of an integrated research framework to understand how consumers form their attitude and make purchase intentions toward online shopping.**

**Key words:** Intention, attitude, online shopping, consumer, Malaysia.

## INTRODUCTION

Today's Internet usage is no longer limited as a networking media, but it is also being used as a means of transaction for consumers at global market. The usage of Internet has grown rapidly over the past years and it has become a common means for delivering and trading information, services and goods (Albarq, 2006).

Nielsen (2008) has published the overall online shopping trends. Over 875 million consumers have shopped online. The number of Internet shoppers has increased up to 40% in two years. Among Internet users with Internet access shopping, the highest percentage shopping online is found in South Korea (99%), UK (97%), Germany (97%), Japan (97%) and US (94%). The most popular and purchased items in the past three months are books (41%), clothing/accessories/shoes (36%), videos/ DVDs / games (24%), airline tickets (24%)

and electronic equipment (23%). Considering that Internet shopping is still at its early stage in Malaysia, little is known about consumers' behavior in adopting this new shopping channel and the factors which influence this behavior (Haque et al., 2006).

According to Wu (2003), an individual's shopping behavior is influenced by four major psychological factors, namely motivation, perception, belief and attitude. The roles of a shopper's personal attitudes have been widely acknowledged in consumers' decision-making and behavioral intentions (Wu, 2003). In particular, attitude serves as the bridge between consumers' characteristics and the consumption that satisfies their needs. Moreover, consumers' characteristics, such as personality, demographic and perception on online shopping benefits, have also been found to influence their online shopping behavior (Cheung and Lee, 2003; Goldsmith and Flynn, 2004; Wu, 2003; Wolfenbarger and Gilly, 2001). According to Ajzen (1991), beliefs regarding the availability of skills, resources and opportunities for performing the behavior

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as well as the existence of internal/external factors influence the behavior. Therefore, the perceived behavioral control has been argued to have an impact on such behavior and thus, a predictor of the behavioral intentions. Such intentions are important as they represent the best estimates of the future behavior available to market researchers.

Meanwhile, intention is determined by an individual's attitude when performing a behavior. Yu and Wu (2007) showed that when consumers have a positive attitude towards online shopping, they have greater intention to shop for products and /or services via the Internet. An individual's perception on the benefits of the behavior, as well as his/her self-efficacy and ability to control both internal and external resources on the behavior in performing the intended behavior, lead to the development of the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM). From an e-business perspective, understanding these theories could provide a valid basis for explaining and predicting consumers' intention towards online shopping behavior (Bobbitt and Dabholkar, 2001; Choi and Geistfeld, 2004; Pavlou and Chai, 2002; Salisbury et al., 2001). This study pioneers in building an integrated research framework to understand how consumers form their attitudes and make purchase intentions toward online shopping. Further, the research focuses on the issues that are related to online shopping intention and provides strategy and directions for the development of online shopping in Malaysia.

## LITERATURE REVIEW

Factors influencing online shopping intention and the attitude toward online shopping have been researched and documented in literatures in the context of traditional consumers.

### Utilitarian and hedonic shopping orientations

Moe (2003) argued that consumers' underlying objectives of visiting a website play a significant role in their purchase attitude towards that website. Hedonic and utilitarian consumers handle and interact with websites differently due to the different personalities and motivations. Previous studies have found that consumers' goals, such as goal-oriented (utilitarian) and experiential-oriented (hedonic), influence their online shopping behaviors (Ha and Stoel, 2004; Schlosser, 2003).

Utilitarian consumers display goal-oriented shopping behaviors. They would shop online based on a rational necessity related to a specific goal (Kim and Shim, 2002). They adopt task-oriented, efficient, rational, and deliberate online shopping approach rather than an entertaining experience (Wolfinger and Gilly, 2001). In terms of the

effect of utilitarian orientation, Shim et al. (2001) and Delafrooz et al. (2009) posited that consumers who highly evaluate the utilitarian aspect of shopping will more likely use the internet as an information source. According to Ndubisi and Sinti (2006), utilitarian orientation of a website rather than hedonic has significant influence on Malaysian online shopping adoption. On the other hand, hedonist consumers display experiential shopping behaviors. Not only do they gather information to shop online, they also seek for fun, fantasy, arousal, sensory stimulation, and enjoyable experience (Monsuwé et al., 2004). In light of this, Childers et al. (2001) and Menon and Kahn (2002) have confirmed that hedonic orientations in online shopping are important predictors for attitudes toward online shopping.

### Perceived behavioral control

Perceived behavioral control refers to one's perception on the availability of skills, resources and opportunities that may either inhibit or facilitate the behavior. It addresses both the internal control (e.g. a person's skills and abilities or self-efficacy) and external constraints (e.g. opportunities and facilities) needed to perform a behavior. In short, it is a function of intention and perceived behavioral control (Barnett and Presley, 2004).

In the context of online shopping, self-efficacy (Lin, 2008; Wang et al., 2006), trustworthiness (Gauzente, 2004; Zhang and Tang, 2006), security (Zailani et al., 2008), user's experience, cost (Nysveen et al., 2005), computer and internet access (Shim et al., 2001), and site accessibility (Cao and Mokhtarian, 2007) are all important behavioral control factors in facilitating online shopping behavior.

In general, there are strong theoretical and empirical supports for the role of behavioral control on intentions. In the context of online shopping, behavioral control would have a positive effect on intention if consumers are not fearful of the opportunistic behavior of a web retailer (Pavlou, 2003).

### Online shopping perceived benefit

The consumers' perceived benefits are the extent of online shopping advantages or satisfactions that fulfill their needs or wants. There are various differences between a physical store and its electronic counterpart (Suki et al., 2008). The main opportunity of online shopping is that consumers can buy things whenever they want (7 days per week, 24 h per day) and wherever they are (McKinney, 2004; Kim and Kim, 2004). In fact, consumers can also enjoy window shopping on the internet without enduring/feeling the pressure to purchase, unlike the traditional shopping environment (Khatibi et al., 2006).

**Table 1.** Variables and sources of instrument.

Variable	Item	Primary author
<b>Online shopping orientation</b>		
Hedonic orientation	7	Babin et al. (1994), Kim and Shim (2002).
Utilitarian orientation	5	
<b>Perceived behavior control</b>		
Self-efficacy	4	Pavlou (2003), Bailey and Pearson (1983), Mathieson (1991), Venkatesh and Davis (1996), Cho et al. (2003), Lee and Johnson (2002).
Trust	5	
Security	3	
Cost	4	
Accessibility	3	
Prior experience	2	
<b>Online shopping perceived benefit</b>		
Convenience	7	Mathieson (1991), Hui et al. (2006), Shergil and Chen (2005), Forsythe et al. (2002), Vijayasathy (2002).
Homepage	3	
Wider selection	2	
Customer service	6	
Price	2	
Fun	5	
<b>Attitude towards online shopping, purchase intention and demographic characteristic</b>		
Age	11	Huang (2005), Taylor and Todd (1995).
Gender	3	
Income	3	

Most of the previous online shopping research works have focused on identifying the attributes of successful online store (Davis, 1989; Muylle et al., 2004; Shih, 2004). The reasons for consumers to shop online comprised of time saving /convenience (Kim and Kim, 2004; Khatibi et al., 2006; McKinney, 2004; Delafrooz et al., 2009), lower price (Harn et al., 2006), wider selection (Harn et al., 2006), entertaining (Parasuraman et al., 2005) homepage and customer service (Shergil and Chen, 2005).

## RESEARCH METHOD

A survey approach was chosen to gather information directly from students enrolled in a public university located in the Selangor, Malaysia. Non-probability sampling technique or convenience sampling was used. To provide an adequate level of confidence in this study, a sample size of 370 respondents was targeted. The survey instrument was a six-page self-administered questionnaire. The instrument was adapted from relevant previous studies. Table 1 illustrates the variables and the sources of instrument.

Intention is determined by an individual's attitude in performing a behavior. The individual's perception on the benefits of the behavior, and his/her self-efficacy and ability to control the internal and external resources on behavior in performing the intended behavior, leads to the development of the Theory of Reasoned

Action (TRA), Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM). From an e-business perspective, understanding of these TRA, TPB, and TAM could provide a valid basis in explaining and predicting consumers' intention towards adopting an online shopping behavior (Choi and Geistfeld, 2004; Goldsmith, 2002; Pavlou and Chai, 2002). Such understanding would enable e-commerce managers to gain better insights into consumers' online shopping motivation and facilitate them in developing effective strategies towards increasing website traffic flow. This research proposed a model to emphasize the role of attitude toward online shopping as a mediator between online shopping intention with online shopping orientations, demographic characteristics, and consumer perceived benefits. The influence of perceived behavioral control on the intention to shop online has been widely considered in the area of online consumer behavior. Most studies suggested perceived behavioral control significantly effects intention to shop online (Pavlou and Chai, 2002) (Figure 1).

## RESULTS

### Demographic profile of respondents

As depicted in Table 2, the respondents consisted of 64.3% females and 35.5% males. It should be noted that there were more female respondents as compared to the males. In addition, the majority of the respondents were in the 20-25 age group (43.8%), followed by those aged

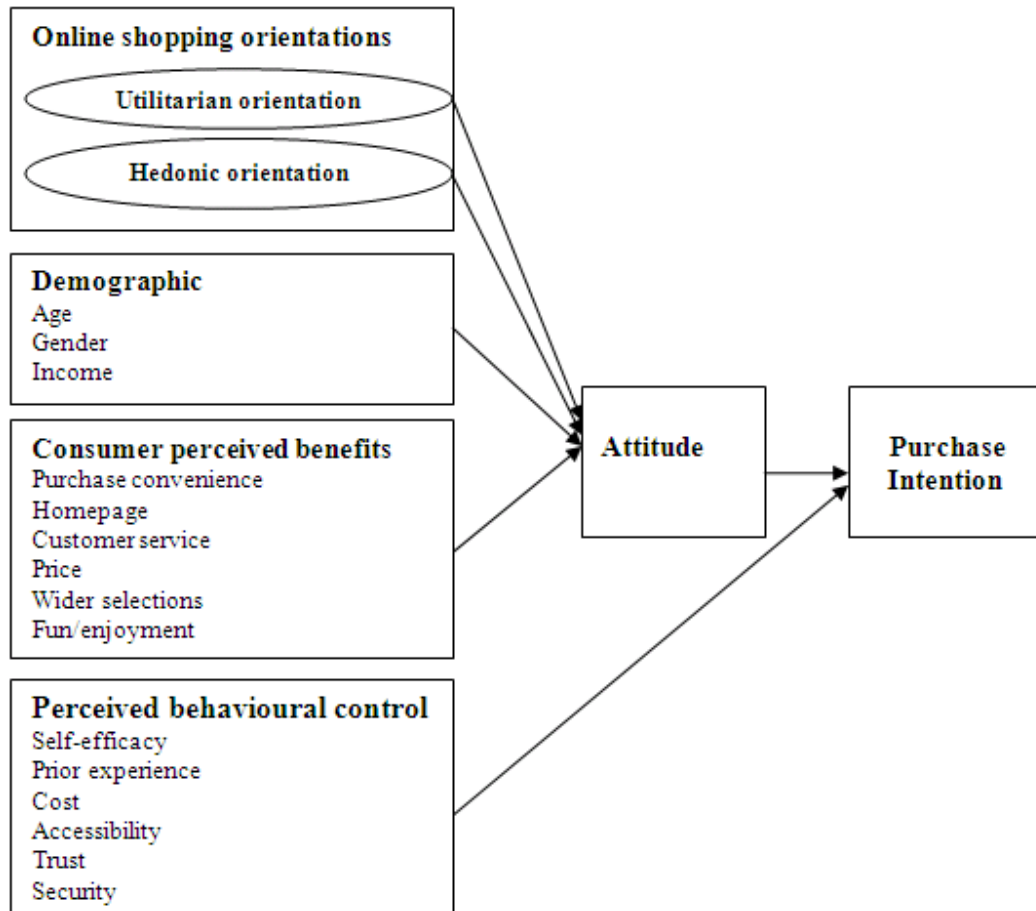


Figure 1. Research framework.

between 26-30 years (29.2%), 31-35 years (16.5%) and lastly, 40 and above (1.1%). With respect to the level of education, 59.5% of the respondents had masters' degree, followed by 35.1% with doctoral degree and 5.4% at post-doctoral (5.4%) level. As for the level of income, the majority income group range was from RM 1000 to RM 2000 (37.3%,  $n = 138$ ), followed by the RM 2000 to RM 3000 (9%) income group. In terms of ethnicity, the Malays comprised of 44.6% of the study respondents, while the Chinese and the Indians comprised 40.5 and 13.2%, respectively.

Regarding product purchasing behaviour among students, indicated they would most likely shop online for "computer/electronics/software" (36.9%), "book/DVD/CD" (31.18%), "clothing/accessory/shoes" (18.26%) and "food/beverage" (5.35%), while the least purchased items were = "toys" (4.24%).

### Internet usage

As presented in Table 3, more than half of the respondents (61.1%) had home- internet access homes or apartments, in which most had wireless internet access.

Therefore, the mode for the most frequent source of access to the internet among respondents was their own residence/home. 43.8% of the respondents spent more than 20 h on the internet per week, while only 5.7% spent less than 5 h per week. In addition, majority of the respondents had wireless access to the internet. With regard to users' computer experience, 38.6% of respondents indicated of having used the computer between seven to ten years, while more than 45% of the participants reported to have used computers for more than 10 years.

### Exploratory Data Analysis (EDA)

The Exploratory Data Analysis (EDA) was carried out to examine normality, linearity and multicollinearity prior to performing higher level of statistical analysis. A normal distribution was assumed by many statistical procedures. Testing for linearity was necessary because correlation, regression, and other members of the general linear hypothesis model assumed linearity. The findings of Exploratory Data Analysis revealed that there was no multicollinearity problem between the predictors and also the assumptions of normality, equality of variance and

**Table 2.** Demographic characteristics of respondents.

<b>Variable and category</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	132	35.7
Female	238	64.3
<b>Age (Years)</b>		
20-25	162	43.8
25-30	108	29.2
30-35	61	16.5
35-40	35	9.5
More than 40	4	1.1
<b>Level of education</b>		
Bachelor	290	78.4
Master	72	19.5
Ph.D	8	2.2
<b>Monthly income (RM)</b>		
Under 1000	73	19.7
1001-2000	138	37.3
2001-3000	36	9.7
3001-4000	82	22.2
Over 4000	41	11.1
<b>Ethnicity</b>		
Malay	165	44.6
Chinese	150	40.5
Indian	49	13.2
Others	6	1.6
<b>Online buying</b>		
Food/beverage	29	5.35
Clothing/Accessory/Shoes	99	18.26
Toys	23	4.24
Computer/Electronics/Software	200	36.9
Book/DVD/CD	169	31.18
Others	22	4.05

linearity were all met.

### Result of path analysis

To assess the significance of the relationships stated in the hypotheses, simultaneous regression equations were employed. In this research, path analysis was used in three different models. Since all possible relationship paths must be available in the path analysis, the author had to delete gender in the first model, age and homepage in the second model, and experience and accessibility in the third model for this analysis. The

results for path analyses on the factors affecting online shopping orientations, online shopping perceived benefits, and attitude towards online shopping indicated (Model 1, Table 4) that all the independent variables (utilitarian orientations, hedonic orientations, purchase convenience, homepage, price, wider selection, customer service, fun/entertainment) explained 74% of the variance specifically for attitude towards online shopping. The result of this structural equation yielded a significant  $R^2$  of 0.74,  $F(10, 359) = 614.264$ ,  $p < 0.001$ . The findings showed significant correlations between purchase convenience, price, wider selection, utilitarian orientation, customer service, and attitude. Meanwhile, the attitude

**Table 3.** General usage of Internet

<b>Variable/Category</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Primary access location</b>		
Home/Dorm/Apartment	226	61.1
Workplace	85	23.0
Public facilities	59	15.9
<b>Mode of access</b>		
Dial-up	88	23.8
High speed(DSL/Cable/T1)	127	34.3
Wireless	155	41.9
<b>Internet surfing (Hours/Week)</b>		
<5	21	5.7
5 - 10	23	6.2
11 - 15	68	18.4
16 - 20	96	25.9
>20	162	43.8
<b>Computer experience (Years)</b>		
< 1	-	-
1 - 3	11	3.0
4 - 6	83	22.4
7 - 10	107	28.9
>10	169	45.7
<b>Internet experience</b>		
<1	6	1.6
1 - 3	31	8.4
4 - 6	108	29.2
7 - 10	143	38.6
>10	82	22.2

**Table 4.** Estimates of coefficients for the first model (Model 1).

<b>Attitude (Y)</b>	<b>B (Unstandardized Coefficient)</b>	<b>Std. Error</b>	<b>Beta (Standardized Coefficient)</b>	<b>t</b>	<b>p-value</b>
Constant	-3.818	.698		-5.471	0.00
Utilitarian (X <sub>1</sub> )	0.258	0.053	0.109	4.841	0.00
Hedonic (X <sub>2</sub> )	0.039	0.023	0.025	1.678	0.094
Convenience (X <sub>3</sub> )	0.881	0.048	.482	18.211	0.000
Homepage (X <sub>4</sub> )	-0.103	0.053	-0.035	-1.939	0.053
Wider selection (X <sub>5</sub> )	0.951	0.098	0.205	9.782	0.000
Price (X <sub>6</sub> )	1.112	0.116	0.238	9.768	0.000
Custom service (X <sub>7</sub> )	0.083	0.037	0.043	2.251	0.025
Fun (X <sub>8</sub> )	0.038	0.034	0.019	1.123	0.262
Age(X <sub>10</sub> )	-0.296	0.084	-0.045	-3.510	0.001
Income(X <sub>11</sub> )	0.244	0.072	0.047	3.380	0.001

R = 0.78; R<sup>2</sup> = 0.744; Adj. R<sup>2</sup> = 0.743; F (10, 359) = 614.264.

**Table 5.** Estimate of coefficients for the second model (Model 2).

Intention (Y)	B (Unstandardized Coefficient)	Std. Error	Beta (Standardized Coefficient)	t	p-value
Constant	.315	.812		.388	.000
Utilitarian (X <sub>1</sub> )	.163	.060	.179	4.392	.007
Hedonic (X <sub>2</sub> )	.115	.026	.166	2.722	.000
Convenience (X <sub>3</sub> )	.171	.055	.225	3.113	.002
Wider selection (X <sub>5</sub> )	.248	.109	.128	2.279	.023
Price (X <sub>6</sub> )	1.035	.128	.526	8.095	.000
Custom service (X <sub>7</sub> )	.074	.036	.092	2.044	.042
Fun (X <sub>8</sub> )	-.043	.037	-.053	-1.169	.243
Gender (X <sub>9</sub> )	-.939	.221	-.161	-4.240	.000
Income (X <sub>11</sub> )	.249	.082	.117	3.032	.003

R = 0.77; R<sup>2</sup> = 0.598; Adj. R<sup>2</sup> = 0.588; F (9, 360) = 59.538.

**Table 6.** Estimates of coefficients for the third model (Model 3).

Intention (Y)	B (Unstandardized Coefficient)	Std. Error	Beta (Standardized Coefficient)	t	p-value
Constant	-4.531	.823		-5.504	.000
Self-efficacy (X <sub>9</sub> )	.131	.038	.109	3.403	.001
Trust(X <sub>10</sub> )	.665	.080	.448	8.339	.000
Security (X <sub>11</sub> )	.157	.052	.179	3.008	.003
Cost (X <sub>12</sub> )	-.023	.040	-.020	-.589	.557
Attitude (X <sub>13</sub> )	.130	.018	.313	7.169	.000

R = 0.817; R<sup>2</sup> = 0.668; Adj. R<sup>2</sup> = 0.664; F (5, 364) = 146.53

towards online shopping had no significant relationship with hedonic orientation, homepage and fun/entertaining webpage.

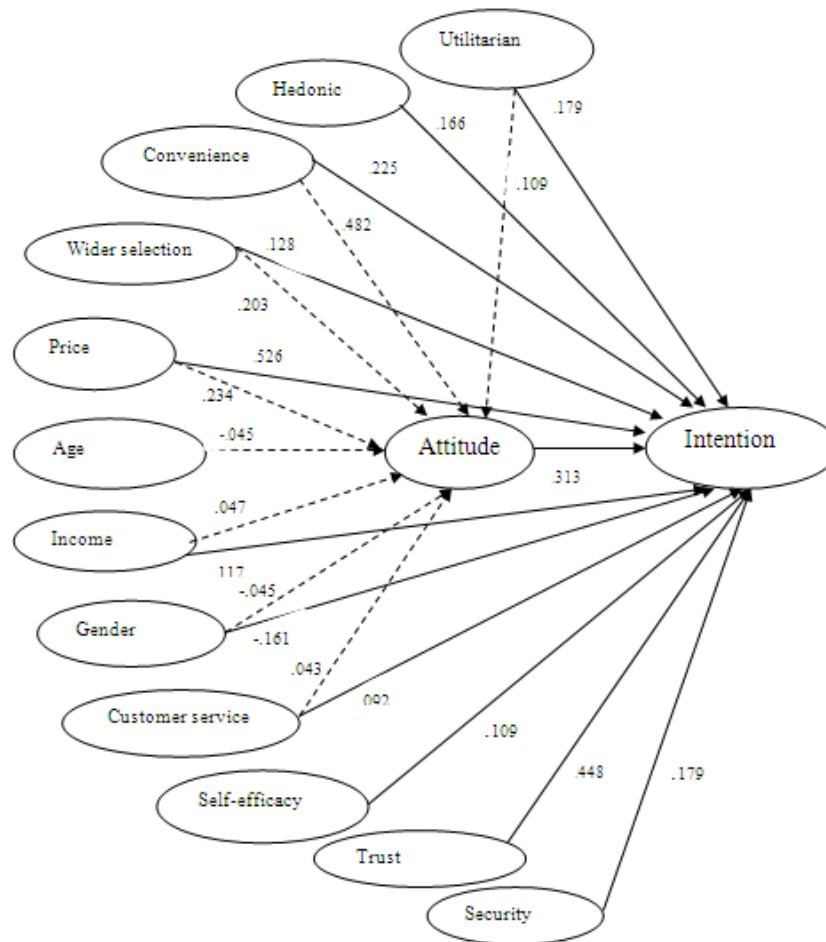
The nine predictors of online shopping intention in the second model were utilitarian orientation, hedonic orientation, convenience, wider selection, price, customer service, fun, gender and income (Model 2, Table 5). The result of this structural equation yielded a significant R<sup>2</sup> of 0.59, F (9, 360) = 59.538, p<0.001. The findings revealed significant correlations between utilitarian orientation, hedonic orientation, convenience, price, wider selection, customer service, income, gender and shopping intention. Meanwhile, the shopping intention had no significant relationship with fun. The five predictors of online shopping intention in the third model were self-efficacy, trust, security, cost, and attitude towards online shopping. The five predictors' possibilities were considered in this part of regression modeling. As presented in Table 6, there was a significant relationship between attitude, self-efficacy, trust, security, cost and intention (R<sup>2</sup> = 0.668, F (5, 364) = 146.53, p < 0.000). The findings showed significant correlations between attitude, self-efficacy, trust,

security and shopping intention. Meanwhile, the shopping intention had no significant correlation with cost.

Figure 2 illustrates the results summarized from the path analysis. When an independent variable gives out a high beta coefficient, it indicates that the variable is highly important in contributing to the prediction of the criterion variable.

## DISCUSSION AND CONCLUSION

In summary, the findings verified the need to gauge intention for online purchase. It also revealed that those with positive attitude towards online shopping possess a high level of online purchase intention. Prior research indicated that stronger positive attitude towards customers' intended behavior contributes/represents higher behaviour intention; stronger negative attitude contributes /represents lower behavior intention (Yu and Wu, 2007). This is important because at the intensity of development level, it is believed that attitude-related issues would play a significant role in the adoption of online shopping.



**Figure 2.** Summarized results from the path analysis.

online shopping. Attributes such as fun/entertainment, safety, reliable, well-ordered and usefulness are the areas in which online retailers can work on in order to improve customers' attitude towards online shopping and hence, their intention to shop online. The importance of the four factors underscores the need for retailers to emphasize on improving these factors. Therefore, given the importance of online shopping attributes on consumers' shopping preference, educating consumers about these attributes and improving or changing these attributes could potentially change their attitude towards online shopping which, in turn, will change their online shopping intention.

Moreover, the finding showed that in online shopping orientation's construction, the consumers' hedonic orientation had direct effects on purchase intention, while consumers' utilitarian orientation showed both direct and indirect effects on purchase intention through attitude as the mediator variable. These results are consistent with the findings in studies by Ha and Stoel (2004), Schlosser (2003) and Ndubisi and Sinti (2006) who found that utilitarian and hedonic orientations contributed significantly to

the adoption of an intention. Besides, Ndubisi and Sinti (2006) suggested that only utilitarian orientation had significantly stronger positive association with intention. Therefore, it is recommended that marketers and website designers involved focusing on enhancing the utilitarian value of retail sites, such as the ease of navigation, complete information availability, convenient ordering process and options for delivery, so as to not put off shoppers who visit with primarily functional reasons.

Additionally, results also revealed that constructing the perceived benefits comprised of both the convenience and price aspects, having direct and indirect effects on the intention to purchase online. In addition, wider selection and customer service are among the dominant factors in constructing perceived benefits. They both significantly influence the intention to purchase online indirectly through attitude towards online shopping as the mediator variable. Results also showed that convenience, price, wider selection and customer service were the most common factors which motivated the consumers for online purchase, which was also confirmed by the findings of several researchers such as Khatibi et al. (2006),



Kim and Kim (2004), McKinney (2004) and Harn et al. (2006). Therefore, online retailers need to ensure that their online shopping process is as easy, simple and convenient as possible for consumers. The websites should be designed in a way that is user-friendly and simple enough for potential buyers, who are not familiar with online shopping. In addition, online retailers should employ need to provide competitive pricings for their products in order to attract online shoppers to their websites and encourage them to make purchasing decisions. However, this will lead to intense price competition and it will be more intense with the availability of intelligent search engines and comparative shopping agents which enable online consumers to easily compare product offerings from various online retailers. Thus, in order to avoid the intense price competition, online retailers need to find other ways to distinguish themselves from their competitors.

In addition, the result showed that only self-efficacy, trust and security in perceived behavioral control construct were positively associated with the intention to purchase online. This finding matched the results from Lin (2008), Wang et al. (2006), Gauzente (2004), Zhang and Tang (2006), and Zailani et al. (2008). More specifically, consumers' perception of the trust for online purchasing exhibited significant relationship with their online buying intention. If the consumers are convinced that online purchasing is safe and reliable, the potential consumer will be unleashed. There is a need for online retailers to develop a privacy policy for their customers, especially on the disclosure of personal information in order to lessen their concern on privacy-related issues.

Finally, it is important to note that the age group and level of income factors were found to be significant, whether directly or indirectly related with the intention to purchase online. On the other hand, the gender factor was only found to be a direct variable in determining consumers' online purchasing intention. This is consistent with the findings of Monuwe et al. (2004), Wu (2003) and Wood (2002). Although, the internet is easily accessible in Malaysia, it is not mainly used for online shopping. Therefore, e-marketers must concurrently execute/implement strategies to maintain their appeal to younger consumers and it must extend sensitive orientations on ways of boosting online sales. Malaysia needs to create awareness and encouragement for online shopping to IT knowledge, as well.

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