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Understanding the Effect of Consumer Perceptions on Buying Intention for Air Tickets Online in Malaysia

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Abstract
Airline companies face high operational costs and fierce competition. For them, electronic ticketing has become an effective way to save costs. Although market studies indicate an upward trend among travellers to buy air tickets online, it is mostly from advanced nations like the United States and United Kingdom. In Malaysia, buying online is somewhat lower. To increase internet booking in Malaysia, it is important to understand the factors that influence buying intention of consumers. However, there is limited academic research in Malaysia. Based on the Technology Acceptance Model, this study investigates the effect of perceived ease of use and perceived usefulness on online buying intention for air tickets. The data was collected online and analysed statistically. Results from the study indicate that perceived usefulness has a significant positive relationship with buying intention, and that perceived usefulness fully mediates the relationship between perceived ease of use and buying intention. In contrast, no significant relationship was found between perceived ease of use and buying intention online. Hence, perceived usefulness has a greater effect on buying intention than perceived ease of use. It is recommended that future research also examine the effect of demographic factors on buying intention for air tickets online.

Keywords: Air Tickets, Buying Intention, Online, Technology Acceptance Model

Introduction
Airline companies face a stressful market environment marked by high operational costs and fierce competition. Finding ways to make enough revenue to cover costs, and get profits remain
challenging. Against these difficulties, electronic-ticketing (e-ticketing) came to be an effective way to save costs (Lubbe, 2007). It began when e-ticketing was singled out by International Air Transport Association (IATA) for its promising ability to lessen the huge operational costs suffered by the overall air industry. Thus, e-ticketing implementation was made compulsory for all IATA members from June 2008 onwards (SITA, 2009). This system allowed direct purchasing of air tickets online. This method avoids physical travel agents and airline ticketing offices, which are costly to airlines.

According to global market research, air tickets bought online has increased over time since it was first introduced. Most tickets bought from the web are from advanced nations like the United States, United Kingdom and Japan (WNS, 2014). However, the situation is different in some other countries. For example, many Malaysian consumers still buy air tickets from traditional brick-and-mortar channels i.e. travel agencies and airlines ticketing offices. Airline companies in Malaysia continually face intense profit pressures. To improve the bottom line, it is most appropriate to look for ways to cut costs such as converting consumers to online booking. In order to get more Malaysian consumers to book flights online, it is important to examine the factors that affect their online buying intention. Based on the Technology Acceptance Model, this paper investigates the effects of perceived ease of use and perceived usefulness of the internet on ticket buying intentions of air travellers in Malaysia.

**Literature Review**

**Electronic Ticketing**

The United States patent document defines e-ticketing as “a method and system of issuing an electronic authorization and validation for pre-scheduled activities such as airline reservations to eliminate paper tickets. The passenger makes a reservation and allows a reservation operation center to charge the passengers’ credit card company”, (Goheen, 2000, p.1).

Almost ten years later, SITA’s (2009) whitepaper described e-ticketing as a paperless system supported by computer technology that can document and track movements of air travellers. In a Malaysian research, e-ticketing was defined as the merging of issuance and delivery of tickets into one operational function, to improve work efficiency (Sulaiman, Ng, & Mohezar, 2008).

By getting rid of paper tickets, the main benefit of e-ticketing to airline companies is the substantially lower operational costs (Pearson, O’Connell, Pitfield, & Ryley, 2015). Costs savings can come from activities such as printing, labour, and no commission pay-out to agents and global distribution systems (Chen, 2007). E-ticketing also functions well with internet communication technology (ICT), allowing travellers to surf the web for information about different flight products and services being offered. Some airlines have gone a step further by installing self-service kiosks at airports to simplify and quicken passenger check-in, hence helping travellers avoid the normal long queues for paper tickets check-in (Chen, 2007).
Behaviour of Travellers
For consumers, using the internet to buy air tickets has its pros and cons versus buying from physical channels such as travel agents and airline sales offices. There are a few benefits when booking online. For example, travellers are not required to bring along any paper tickets, thus there will be no worries and stress of losing or misplacing tickets. Travellers can surf the web, find available seats, and conveniently book the choice seats on any relevant websites from anywhere, anytime (Chang & Hung, 2013). Normally, consumers can buy cheaper tickets from the internet compared to physical channels (Crespo-Almendros & Del Barrio-García, 2016). The positive versus negative perceptions of the internet are very likely to affect a consumer’s decision about where to buy from (Izquierdo-Yusta, Martínez-Ruiz, & Álvarez-Herranz, 2014).

According to some past research, consumers resist from buying air tickets online (Kolsaker, Lee-Kelley, & Choy, 2004; Ruiz-Mafé, Sanz-Blas, & Aldás-Manzano, 2009) despite an awareness of the pros of booking on the internet (Kolsaker et al., 2004). Moreover, the authors found that most consumers (80%) surfed the web looking for information regarding flights and prices, but few (30%) continued to buy online (Ruiz-Mafé et al., 2009). Similarly, PhoCusWright’s (Kapoor & Rauch, 2013) market study showed that many travellers from Asia-Pacific searched the internet for travel information but few bought online. Instead many opted to buy from physical channels. Other market surveys also demonstrated that travellers in Malaysia behaved in the same way (Tourism Australia, 2013; Singapore Tourism Board, 2014).

For online shopping, consumers have no choice but to use self-service technology. Buying online effectively shoves all responsibility of purchase to the shopper, including any buying mistakes (Park, Tussyadiah, & Zhang, 2016). When flights are reserved online, the consumer is personally accountable for surfing the web to look for information on ticket prices, routes, compare flights, and then to key in the correct details for booking (Cunningham, Gerlach, & Harper, 2004). It is common for consumers to face much hassle to correct any mistakes made after buying online (Cunningham, Gerlach, & Harper, 2005) particularly where travel itineraries need to be changed.

These problems arise as a result of using the internet as a new technology to buy airline tickets. However, as discussed above, there are some benefits of buying tickets online. For example, convenience, accessibility of useful information, ease of comparing prices and promotions, as well as quicker shopping (Heung, 2003; Vijayasarathy, 2004). Therefore, consumers’ perceptions of how easy and useful it is to utilize the internet for online reservations are likely to influence their intention to buy air tickets from websites (Izquierdo-Yusta et al., 2014).

Technology Acceptance Model
The Technology Acceptance Model (TAM) was initially introduced by Davis (1986) in his doctoral thesis. Basically, he was curious about organizational employees’ reasons for accepting or rejecting information technology at work. At first, Davis did not study about individual’s behavioural intention in the TAM. Only a few years later, Davis (1989) added intention to the model.
Davis (1986, 1989) asserted that employee intention of whether or not to use information technology at work is jointly determined by two key influencers i.e. perceived usefulness (PU) and perceived ease of use (PEU). He described PU as the degree of one’s beliefs that using a particular system would improve job performance in an organization. The other factor, PEU, is about the extent of beliefs held by potential IT users that using a certain system would be free of physical and mental stress.

The TAM addressed the concerns of many business firms in the 1980s. Many organizations hesitated to acquire and install costly information technology systems, and if employees were going to use them for work purposes. The model was readily accepted then. Henceforth, numerous information systems (IS) researchers have applied TAM as a rational explanation for the adoption of information technology (IT) among users (Marangunić & Granić, 2015).

Eventually, many researchers in other non-IS areas started borrowing the TAM idea to study and explain people’s acceptance of technology. Among them, some have examined consumer’s acceptance of the internet usage for a various purposes including online shopping (Akhalq & Ahmed, 2014; Ha & Stoel, 2009). The study by Ha and Stoel (2009) found the TAM variables to have significant influence on consumer intention to do e-shopping. Another study by Akhalq and Ahmed (2014) supported the relevance of TAM when applied globally. This survey was on respondents from 14 countries covering North America, Europe and Asia. The findings showed the two main TAM variables (i.e. PEU and PU) as having positive relationships with intention to buy online. In general, TAM-based research frameworks have been useful in explaining consumer behaviour.

Though it has been decades since TAM was first introduced, authors using meta-analyses of TAM studies done over time showed that PU and PEU have stayed consistently reliable and valid (Chuttur, 2009; Marangunić & Granić, 2015).

Buying Intention
Fishbein and Ajzen (1975) argued that behavioural intention is a person’s subjective likelihood of acting in accordance with an expressed behaviour (p.12). This description of intention is divided into two parts - degree and direction. Degree is about the subjective possibility of a behavior occurring while direction relates to an individual’s behavior that is directed towards doing or not doing something. Hence, intention can range from low to high probability that a behavior will actually be carried out by an individual. Extended to consumers, one may show varying degrees of intention – from none to high buying intention.

Furthermore, it was asserted that people’s intention to perform a behavior mainly predicts behavior in real life (Ajzen, 1991). The author also noted that an individual’s intention is reflective of the motivations influencing his/her behavior. Therefore, the stronger a person’s intention to perform an act, the higher the chances of the act being performed (Ajzen, 1991).

When intention is properly measured, it can be used to predict actual behavior quite accurately (Ajzen & Fishbein, 1973). Even though in real life intention and behavior do not correlate
perfectly, the former has been widely accepted as representative of actual buying behaviour by academics and other researchers (Chandon, Morwitz, & Reinartz, 2005). Besides, research on buying intention remains relevant even in recent years as shown by studies about online shopping (e.g. Mohseni, Jayashree, Rezaei, Kasim, & Okumus, 2016; Pappas, Kourouthanassis, Giannakos, & Lekakos, 2016) and travel products (e.g. Bonsón Ponte, Carvajal-Trujillo, & Escobar-Rodríguez, 2015; Filieri, Mcleay, & Tsui, 2017; Mohseni et al., 2016).

PU and Buying Intention
It can be seen from TAM studies on information systems (IS) that the relationship between PU and buying intention has been rather well researched (Yayla & Hu, 2007). Most IS studies found significant relationships between PU and intention. For instance, Yayla and Hu (2007) extracted 32 IS studies from 4 dissertations and 22 journal articles, and used them to investigate user intentions. The researchers did a meta-analysis to see how well the results fit the TAM and TPB (Theory of Planned Behaviour) models. PU was found to be an important factor influencing intentions.

Numerous online studies similarly demonstrated that perceived internet usefulness significantly influenced intention to use the web for various transactions. For example, Featherman and Wells (2010) examined people’s intention to use online bill payment services. Their findings revealed that when the online service is perceived as useful, people will have greater intention to pay online in the future. Similar results have been demonstrated for online shoppers who used websites for general shopping (Akhlaq & Ahmed, 2014; Ha & Stoel, 2009; Li & Huang, 2009), banking (Alalwan, Dwivedi, Rana, & Williams, 2016; Gu, Lee, & Suh, 2009), buying travel products (Kamarulzaman, 2007; Kucukusta, Law, Besbes, & Legoherel, 2015), and air tickets purchasing (Bukhari, Ghoneim, & Dennis, 2012; Mohd Suki & Mohd Suki, 2017).

Overall, various products and service offerings in commercial websites enable consumers to make better purchasing decisions. Thus, it can be expected that many consumers would perceive the usefulness of the internet for shopping purposes, and increasing their buying intention online. Therefore, it is proposed that:

H1: There is a positive relationship between consumers’ perceptions of usefulness and buying intention of air tickets online.

PEU and Buying Intention
Quite a number of IS research did not study the relationship between PEU and intention (Legris, Ingham, & Collerette, 2003) perhaps because Davis (1986) did not include users’ intention in his original model.

However, a few years later, Davis (1989) found a significant relation between PEU and usage intention among computer users. On the other hand, IS research over time showed mixed results for this relationship (King & He, 2006). In particular, King and He’s (2006) meta-analysis on 88 studies from respected journals found the effect of PEU on user intention is inconsistent across
the studies. The findings were attributed to the different context of usage. Nonetheless, King and He (2006) observed the substantial direct effect of PEU on intention for internet usage.

This mixed support for PEU and intention’s relationship can also be observed in the online environment. Several studies showed significant relationships while others did not (Ukpabi & Karjaluoto, 2016). For online shopping, significant relationships between PEU and buying intention had been found for general shopping (Akhaq & Ahmed, 2014; Li & Huang, 2009) and air tickets purchasing (Bukhari et al., 2012). By contrast, other studies had shown insignificant relationships between PEU and intention. These studies have examined online shopping for travel products and services (Kamarulzaman, 2007; Mohd Suki & Mohd Suki, 2017) and buying from website retailers (Pavlou, 2003). Thus, it is suggested that:

H2: There is a positive relationship between consumers’ perceptions of ease of use and buying intention of air tickets online.

PEU and PU
As originally discovered by Davis (1986), IS research mostly supports the significant association between PEU and PU (Davis, 1989; Legris et al., 2003; Yayla & Hu, 2007). Legris et al. (2003) conducted a thorough analysis of TAM studies on the usage of various software tools. Significant relationships between PEU and PU were found in 21 out of 28 studies, none in 5 studies, and not tested in 2 studies.

Likewise, evidence from online settings shows the significant association between PEU and PU (Mohd Suki & Mohd Suki, 2017; Bukhari et al., 2012; Legris et al., 2003; Pavlou, 2003; Yayla & Hu, 2007). Yayla and Hu (2007) did a comparison of many studies which had applied the TAM construct via a meta-analytic technique. The results substantially supported the relationship existing between PEU and PU for 32 studies from 22 journal articles listed in the Web of Science database and 4 dissertations. Another study by Featherman and Wells (2010) examined the acceptance of internet service usage for bill payment purposes, similarly found that PEU had a significant influence on PU. Similarly, Pavlou (2003) showed that PEU significantly influenced PU in a study on consumer acceptance of e-commerce. Another research by Bukhari et al. (2012) corroborated these findings when applied to air tickets bought online among Saudi Arabian travellers. Similarly, Mohd Suki and Mohd Suki (2017)’s study found PEU’s significant effect on PU of an air ticket booking app. Overall, the above studies suggest that consumers who perceive the internet as being easy to use will generally find it useful for buying purposes as well. Thus, it is hypothesized that:

H2: There is a positive relationship between consumers’ perceived of ease of use and perceived usefulness of the internet for buying air tickets online.

PEU, PU and Buying Intention
Many studies over time provide evidence that PEU operates through PU to influence behavioural intention (Featherman & Wells, 2010; Szajna, 1996). Szajna’s (1996) longitudinal IS study regarding email users, showed no direct relationship between PEOU and intention. Nevertheless,
PEOU showed an indirect relationship with intention through PU after the email system was implemented.

Numerous online studies have also been conducted. Pavlou’s (2003) study demonstrated a significant relationship between PEU and PU, as well as PU and buying intention online. However, PEU and intention were only weakly associated with each other for the consumer sample and no relationship was found in the student sample. Another study found PU having a partial mediating effect between PEU and intention (Ayeh, Au, & Law, 2013).

For online bills paying intention, Featherman and Wells (2010) found that PU was a full mediator between PEU and usage intention. Travel shopping research lends further support for the full mediating effect of PU on PEU, and buying intention (Kamarulzaman, 2007). Additionally, the results of Mohd Suki and Mohd Suki’s (2017) recent Malaysian study on also showed PU to be a full mediator between PEU and intention to use a mobile app to book flight tickets. Hence, it is proposed that:

H4: The relationship between consumers’ perceived of ease of use and buying intention of air tickets online is mediated by perceived usefulness of the internet.

From the preceding discussions, the conceptual model is presented as following:

![Conceptual Model Diagram](image)

Figure 1: The Conceptual Model. Adapted from Davis (1989).

**Research Methodology**

A survey questionnaire was developed to collect data online. Due to the nature of this study, online data collection is particularly appropriate as it excludes those having no access to the internet and unable to buy air tickets online. The questions were adapted from past studies by several researchers (Davis, 1989; Ruiz-Mafé et al., 2009; Salisbury, Pearson, Pearson, & Miller, 2001). Other than a few questions to obtain descriptive data, the rest of the questions were measured using a seven-point Likert scale ranging from (1) strongly disagree to (7) strongly agree.

At first, a panel of three experienced researchers from University Tunku Abdul Rahman was engaged to assess the questions. Then minor amendments were made, followed by a pre-test to ascertain content validity. The pre-test was conducted with some sample consumers who are
internet users. Based on the feedback received, some slight changes were done to the wordings of the questions for easier understanding.

Next, Google Docs was used as the internet platform to pose the survey questions. Emails and social media were used to invite potential respondents. Interested individuals took part in the online survey via a click on the attached link to Google Docs. By the end of the survey period, 85 responses were obtained. Upon data screening, 80 responses were found to be suitable for analysis.

**Results**

**Descriptive Analysis**

Characteristics of the respondents are presented in Table 1. Out of the total 80 respondents, there were 25.0% males and 58.8% females. Most respondents were between 30 and 39 years old (28.8%). This is followed by the age groups of 50-59 (21.3%), 40-49 (16.3%), 60 and above (15%), 25-29 (12.5%) and 18-24 (6.3%). As for highest educational attainment, an overwhelming majority of 81.4% had received tertiary education, while the rest had received up to secondary education only. Regarding marital status, most respondents were married (68.8%) while others were single (31.2%). When it comes to income, about one-third of the respondents earned between RM3,000 and RM4,999 per month (30.0%). Each of the other income groups made up less than 20% of the total respondents i.e. RM5,000 – RM6,999 (17.5%), RM1,000 – RM2,999 (15.0%), below RM1,000 and at least RM10,000 (12.5% each), and RM7,000 – RM9,999 (11.3%).

**Data Analysis**

Analysis of the descriptive data was conducted with SPSS version 20 while the other data was analysed using Smart PLS 2 (Ringle, Wende, & Will, 2005). More specifically, partial least squares structural equation modelling (PLS-SEM) was used to test the hypotheses in the research model. Partial least squares (PLS) is known as a multivariate technique suitable to test structural models, by estimating the model parameters which minimize the residual variance of the dependent variable(s) in a full model (Wold, 1982). Furthermore, PLS does not require data to have a normal distribution, and high levels of statistical power can be attained even with small sample sizes (Hair, Hult, Ringle, & Sarstedt, 2014).
Table 1: The respondent characteristics

<table>
<thead>
<tr>
<th>Gender (n=80)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>20</td>
<td>25.0</td>
</tr>
<tr>
<td>Female</td>
<td>47</td>
<td>58.8</td>
</tr>
<tr>
<td>Missing</td>
<td>13</td>
<td>16.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>5</td>
<td>6.3</td>
</tr>
<tr>
<td>25-29</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td>30-39</td>
<td>23</td>
<td>28.8</td>
</tr>
<tr>
<td>40-49</td>
<td>13</td>
<td>16.3</td>
</tr>
<tr>
<td>50-59</td>
<td>17</td>
<td>21.3</td>
</tr>
<tr>
<td>60 and above</td>
<td>12</td>
<td>15.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest level of education received</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary school</td>
<td>14</td>
<td>17.5</td>
</tr>
<tr>
<td>Diploma</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>17</td>
<td>21.3</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>29</td>
<td>36.3</td>
</tr>
<tr>
<td>Professional</td>
<td>17</td>
<td>21.3</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>25</td>
<td>31.2</td>
</tr>
<tr>
<td>Married</td>
<td>55</td>
<td>68.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monthly income</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below RM1,000</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td>RM1,000 – RM2,999</td>
<td>12</td>
<td>15.0</td>
</tr>
<tr>
<td>RM3,000 – RM4,999</td>
<td>24</td>
<td>30.0</td>
</tr>
<tr>
<td>RM5,000 – RM6,999</td>
<td>14</td>
<td>17.5</td>
</tr>
<tr>
<td>RM7,000 – RM9,999</td>
<td>9</td>
<td>11.3</td>
</tr>
<tr>
<td>RM10,000 and above</td>
<td>10</td>
<td>12.5</td>
</tr>
</tbody>
</table>

**Measurement Model Evaluation**
Firstly, the data was examined for cross loadings. Consequently, 13 indicators were reduced to 7 indicators leaving a construct with one indicator. This step improved the model substantially. From table 2, it can be seen that Cronbach’s alpha range are 0.928 and 0.933 while composite reliabilities are 0.954 and 0.957 for PEU and PU respectively. All values well over 0.70 indicate good internal consistency of the measured items (Nunnally, 1978).

In the next step, the model was tested for convergent and discriminant validity. The former is assessed through the average variance extracted (AVE), which should be more than the minimum threshold of 0.50 (Fornell & Larcker, 1981). From table 2, all AVE scores are well above 0.50, hence supporting convergent validity of the indicators for each construct.
Table 2: Reliability and convergent validity of the constructs

<table>
<thead>
<tr>
<th></th>
<th>Loadings</th>
<th>Indicator reliability</th>
<th>Composite reliability</th>
<th>Cronbach’s alpha</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the Internet to buy airline tickets: Perceived ease of use (PEU)</td>
<td>0.913</td>
<td>0.833</td>
<td>0.957</td>
<td>0.933</td>
<td>0.822</td>
</tr>
<tr>
<td>• is simple for me to do</td>
<td>0.954</td>
<td>0.910</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I find my interaction with the internet clear and understandable</td>
<td>0.951</td>
<td>0.904</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• is easy following the instructions on the website</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived usefulness (PU)</td>
<td>0.930</td>
<td>0.865</td>
<td>0.954</td>
<td>0.928</td>
<td>0.874</td>
</tr>
<tr>
<td>• helps me purchase more quickly</td>
<td>0.944</td>
<td>0.891</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• is useful for my air ticket purchases</td>
<td>0.931</td>
<td>0.867</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• helps me shop more efficiently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buying intention (BI)</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>• I predict that I will regularly use the Internet to buy air tickets in the future</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discriminant validity was evaluated through the square root AVE, which should be higher than the correlation between the constructs (Fornell & Larcker, 1981). As shown in table 3, all square root AVEs figures on the diagonal are higher than the off-diagonal between constructs’ correlation figures. Thus, this result indicates adequate discriminant validity between the three measured constructs.

Table 3: Discriminant validity of the constructs

<table>
<thead>
<tr>
<th>PEU</th>
<th>PU</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived ease of use (PEU)</td>
<td>0.939</td>
<td></td>
</tr>
<tr>
<td>2. Perceived usefulness (PU)</td>
<td>0.921</td>
<td>0.935</td>
</tr>
<tr>
<td>3. Buying intention (BI)</td>
<td>0.327</td>
<td>0.374</td>
</tr>
</tbody>
</table>

**Structural Model Evaluation**

The structural model was evaluated for collinearity through the variance inflation factors (VIF)(Hair et al., 2014). All VIF values were below 5, indicating no major issues with collinearity. Next, the model’s hypotheses were tested by running the PLS analysis. The regression parameters were estimated by using 300 samples bootstrap, to obtain the Student’s t-test for each hypothesis. Results of the PLS structural model are shown in Figure 2.
The relationship between PEU and PU is significant at p<0.01 (t=36.082) while the relationship between PU and BI is significant at p<0.05 (t=2.187). In contrast, the relationship between PEU and BI is insignificant (t=0.530). This result also indicates the full mediating effect of PU between PEU and BI. Thus, H1, H3, and H4 are supported while H2 is not supported.

Figure 2: PLS results of the structural model

The structural model was further examined for $R^2$ and $Q^2$ predictive relevance. Results of the test show $R^2$ value of 0.848 for PU indicating that the exogenous construct PEU is able to explain 84.8 per cent of the variance in PU. Other result shows $R^2$ value of 0.142 for BI. Hence, the model is able to explain 14.2 per cent of the variance in the endogenous construct, BI. Further test results demonstrate that the $Q^2$ predictive relevance is more than zero, statistically supporting the predictive relevance of the exogenous constructs, PU and PEU, for the endogenous construct, BI.

**Discussions**

Results of the current study provide adequate support for the overall research model presented in Figure 1. There is an explained variance of 14.2% for buying intention of air tickets online, and 84.8% for perceived usefulness of the internet for online purchasing of air tickets. According to Hair et al. (2014), assessing $R^2$ value is subjective depending on the research area. Furthermore, Cohen's (1988) rule of thumb establishes that 0.02, 0.13 and 0.26 for $R^2$ values can be interpreted as weak, moderate and substantial respectively. Thus, the results indicate moderate support for buying intention and substantial support for perceived usefulness.

The hypothesized positive relationship between perceived usefulness and buying intention which was found to be significant in this research, is consistent with many past studies relating to the online environment. When a consumer perceives the internet as being useful for buying air tickets, he/she will tend to have higher intention to buy online. In the past, similar results have been observed by several authors for online shoppers who had bought air tickets (Bukhari et al., 2012; Mohd Suki & Mohd Suki, 2017) and travel products (Kamarulzaman, 2007; Kucukusta et al., 2015) from websites. Moreover, this study result also aligns with most previous IS studies on
TAM models. As demonstrated by Yayla and Hu's (2007) meta-analysis, perceived usefulness has a significant effect on user intention in the majority of studies reviewed by the authors.

The second hypothesized relationship between perceived ease of use and buying intention was insignificant. Thus, easiness of using the internet to book air tickets does not influence intention to buy online. This finding is different from Bukhari et al.'s (2012) study on air tickets bought online which found a significant relationship between these two variables. However, the study result is similar with research conducted on travel shopping by some other authors (i.e. Kamarulzaman, 2007; Mohd Suki & Mohd Suki, 2017). Moreover, this study's finding supports the mixed results of the meta-analysis on TAM studies done by King and He (2006).

The significant positive relationship found between perceived ease of use and perceived usefulness is similar with the findings of majority past research on IS as well as internet usage (Legris et al., 2003; Yayla & Hu, 2007). Likewise for air tickets and travel products bought online, previous studies also demonstrated the presence of significant relationship between PEU and PU (Bukhari et al., 2012; Mohd Suki & Mohd Suki, 2017).

Since PEU and BI had no significant relationship, but PEU and PU, as well as PU and BI, had significant relationships, the results support the full mediating effect of PU in the current study. This finding is consistent with other internet usage studies for buying air tickets (Bukhari et al., 2012; Mohd Suki & Mohd Suki, 2017), travel shopping (Kamarulzaman, 2007) and bill payment (Featherman & Wells, 2010).

Conclusions and Recommendation
Findings of the current research provide additional support for the TAM (Davis, 1989). This is achieved through applying the major TAM variables, perceived ease of use and perceived usefulness as well as intention, to study consumer behaviour with regards to using the internet to buy air tickets in Malaysia, an emerging market. Perceived usefulness is confirmed as a predictor of consumer intention to buy online, and a mediator variable between perceived ease of use and buying intention. Hence, it is advisable for airline companies to try improving consumer perceptions about the usefulness of buying tickets from their websites. Successful efforts in this direction will help airlines save costs, thereby improving overall profitability for the companies.

Although the other TAM variable, perceived ease of use, does not have a direct effect on buying intention among the study respondents, it should not be ignored by managers of airline companies. This is due to its significant and substantial effect on perceived usefulness. Perceptions about ease of use affect perceptions of internet usefulness which subsequently affect intention to buy air tickets online. Higher PEU leads to higher PU, and together they increase online buying intention for air tickets.

It is recommended that future studies include other possible influential factors into the research model. For example, researchers could investigate whether demographic variables such as gender, educational level, age or income may have any intervening influence on consumers’
online buying intention for air tickets. The findings may be helpful to airline companies in developing better profiles of their target customers to increase online tickets purchases.

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