E-Travel use in Padang: The Role of Enjoyment, Perceived Ease of Use, and Perceived Usefulness

Dinni Haryani, Mira Septia A., and Vera Pujani

Abstract—E-travel is believed as the considerable tool to expand the market with cheaper cost. Since the advance of technology, e-travel becomes one of potential activities in conducting business transactions especially in tourism industries. This study aims to identify the key success factors that influence the use of e-travel website in Padang based on users’ point of view. There are some variables as influencing factors of e-travel website adoption including enjoyment, usefulness, ease of use, and the use of e-travel website. The findings of the current conceptual study build the theoretical framework of e-travel model success according to e-travel user’s perspectives in Indonesia. The study is analyzed empirically using SEM technique. The finding of this study is all of the factors (enjoyment, perceived ease of use, and perceived usefulness) significantly affect the use of e-travel website.

Keywords—Adoption, Enjoyment, E-travel Website, Usefulness, Ease of Use.

I. INTRODUCTION

THESE are a number of business activities which are done through internet. One of business activities which uses internet to help them operating their business is travel industry. Travel industry is one of the biggest and fastest growing industries in the world [14]. In this global era, a travel industry without travel agents is quite unbelievable as it would result in utter chaos and disorder in the industry [22]. The travel planners want to get easy and quick information from the travel agent. Therefore, travel agents develop information system through internet by using website. This website will be used by travel planners and internet users to look for some information.

E-travel website is the most frequently visited online information facilities by travelers [5]. There are many travel planners in the world search for tourism in e-travel website. Tourism is one of the world’s biggest industries which adopts internet as medium for e-business revolution [5] It is used as a tool to attract internet users to use e-travel website. By implementing this, e-travel can promote their product such as tour packages, hotels, rent cars by also providing information about tourism and beautiful places of particular cities which is most searched by users.

This paper presents the literature survey of numerous journals related to the travel website study. The primary focus of this research centers on the following research question:

What factors that influence the use of e-travel website among website user’s perspectives?

The following sections are organized as follows: presents the background of the website and then it will be followed by the conceptual framework of the use of e-travel website factors and data analysis and result. Finally, this article is ended by the conclusion of this study.

II. BACKGROUND

Theory acceptance model is a theory which was introduced and developed by Davis that addresses the issue of how people want to accept and use a technology [25]. It has been employed to investigate the use and acceptance of new technology by many researchers [20]. TAM is developed from Theory of Reasoned Action (TRA) by Ajzen and Fishbein. Theory of Technology Acceptance Model (TAM), is purposed by Davis in his doctoral thesis at the MIT Sloan school of Management [8]. During the experiment stages, Davis would refine his model to include other variables and modify the relationship that he initially formulated [7]. In 1989, Davis, Bagozzi and Warshaw conducted longitudinal study with 107 users [10]. This study was aimed to measure their intention to use system after a one hour introduction, and then 14 weeks later. The result showed that there is a strong correlation between reported intention and self-reported system usage. Moreover, perceived usefulness is the greatest influence on people’s intention. However, perceived ease of use shows a small but significant affect on the intention. Because of both perceived usefulness and ease of use have direct influence on behavioral intention; it eliminated the attitude variable in the model [7].

Many researchers use TAM to predict the use of technology. Hence, TAM becomes a leading model to explain and predict the acceptance of technology. According to TAM theory, the users’ behavior to use technology is determined by their behavioral intention that is influenced by their perceived ease of use and usefulness of technology [15].

However, this research combines the model of TAM in which perceived ease of use and perceived usefulness affect the use of e-travel website directly and the other variable – enjoyment which can influence both perceived ease of use and perceived usefulness. Therefore, the variables of TAM

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(Perceived Ease of Use, Perceived Usefulness, Actual System Use) and enjoyment will be examined in this research.

III. FACTORS OF THE USE

The use of website is the actual action of individuals to use website. In this study, type of website which is considered by the researcher is e-travel website. Many researches examine what factors predict the use of new technology and the results are vary. In the TRA, the result shows that what affect the actual system use is behavioral intention which is affected by attitude and subjective norm [10]. The TAM theory itself has varied results. The final model of TAM in 1996 showed that Actual system use is affected by behavioral intention which is affected by perceived usefulness and perceived ease of use [28].

A. Perceived Usefulness

Perceived usefulness is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” [8], Davis also explained that this definition comes from the word useful and it means “capable of being used advantageously” [8]. If system is high in perceive usefulness, means a user believes that the system will give him or her better performance [8]. According to Yi & Hwang, usefulness is “a construct that measures how people believe their productivity and effectiveness have been improved due to the use of technology” [31].

Davis mentioned the initial scale items for perceived usefulness using electronic mail as the technology using 14 indicators [8]. According to TAM theory, perceived usefulness is influenced by perceived ease of use [7].

B. Perceived Ease of Use

Perceived ease of use refers to “the degree to which a person believes that using a particular system would be free of effort” [8]. It follows from the definition of ease which is meant “freedom from difficulty and great effort” [8]. It also plays an important role in the diffusion of innovations and acceptance of new technologies [24].

Davis also mentioned initial scale items for perceived ease of use employing 14 indicators [8]. Perceived ease of use and perceived usefulness can be influenced by other factor which is external variables [10], [28].

C. Enjoyment

Enjoyment is the activity to use a computer system is perceived to be personally enjoyable in its own right aside from the instrumental value of the technology [11]. In the research, it is purposed enjoyment to have an influence on behavioral intention [11], [29] and have an influence on perceived ease of use [27], [29]. However, the effect of enjoyment on perceived usefulness was not examined [9]. Therefore, this research will examine the effect of enjoyment on perceived ease of use and perceived usefulness.

D. Enjoyment, Perceived Usefulness and Perceived Ease of Use

Yi and Hwang predict the use of web-based information systems by considering several variables which are self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model. The result showed that enjoyment has significant impact on ease of use and usefulness and enjoyment was stronger determinant of usefulness than ease of use [31].

To examine how intrinsic and extrinsic motivators for using microcomputers influence Brazilian managers’ behavior, a study was conducted by Dias [12]. He focused on three main motivators which are perceived usefulness, perceived ease of use, and perceived enjoyment. He has two hypothesized that related to this research. First, the greater the perceived enjoyment in using computers, the easier the manager will find using them. Second, the greater the perceived enjoyment in using computers and the easier manager finds using them, the greater will be perceived usefulness of computers [12]. As expected, both hypotheses are accepted.

Sun and Zhang developed an empirical study on causal relationship between perceived enjoyment and perceived ease of use. PE and PEOU are conceptually close in the nature so it is difficult to distinguish their impacts from each another [23]. Because of that reason Sun and Zhang develop two studies with two models [23]:

- Study 1: employees’ acceptance of internet-based search engines
- Study 2: students’ acceptance of university website

The models are:

- Model 1: Perceived ease of use affects perceived enjoyment
- Model 2: perceived enjoyment affects perceived ease of use

As a result, Sun and Zhang have proposed both directions between PE and PEOU [23]. They explained that it is a fact which causal relationship is critical to understand the mechanism through factors which are influencing each other. However, this research confirms the hypothesis that PE affect PEOU is more robust than PEOU affect PE for utilitarianism [23]. Based on the previous studies above, the researcher develops two hypotheses as follow:

H1: Enjoyment has significant effect on perceived usefulness
H2: Enjoyment has significant effect on perceived ease of use

E. Perceived Ease of Use and Perceived Usefulness

The more users perceived the system to be easy to use, the more they will see it as useful [19]. A research in Korea was conducted by Cheong and Park in 2005. The study is examined about how mobile internet can be accepted in Korea. The result of this study which came from 1279 respondents shows that perceived ease of use has positive impact on perceived usefulness [3].

The result in USA also shows the same. Park and Chen did the observation by using doctors and nurses as sample to test the adoption of innovative use of smartphone [20]. The result is perceived usefulness was positively influenced by perceived ease of use. Moreover, the relationship between perceived usefulness and perceived ease of use has been documented and the results show that they have important link [20].

Teo et al. conducted a study that examined the factors drive individuals to adopt and use information technologies in their workplace and personal lives [25]. Using 250 (175 females and 75 males) and 245 (183 females and 62 females) pre service teachers in Singapore and Malaysia, the data gathered through online survey questionnaire which use five-point
likert scale. The results showed that perceived ease of use significantly influenced perceived usefulness [25].

Another research which supports the perceived ease of use and perceived usefulness is a research by Lin and Chang. They examine about self-service technology (SST) acceptance. The result showed that “the more an individual perceives SSTs as easy to use, the more individual will perceive SSTs as useful [16]. A study about Blended E-Learning system acceptance which used nurses as participants revealed that nurses usually have heavy duties in their jobs, so if they believe a BELS can help them learn effectively, they are more likely to use BELS [18].

To predict the behavioral intention to use enterprise resource planning system, a research was conducted by [2]. The data is gathered by using survey methodology. The questionnaire spread to 200 people and returned 75. The research found that the relationship between perceived ease of use and perceived usefulness is significant [2]. Another study that concerns about factors that might affect internet banking acceptance showed that perceived ease of use is a determinant of perceived usefulness [30].

Perceived ease of use played an important role in determining perceived usefulness. However, there is also a study that does not support this. A study by Yi and Hwang showed that perceived ease of use does not significantly affect perceived usefulness but enjoyment is a significant determinant usefulness [31]. Therefore, the researcher wants to examine the relationship between perceived of use and perceived usefulness. Based on the previous studies above, the researcher develops a hypothesis as follow:

**H3: Perceived ease of use has significant effect on perceived usefulness.**

**F. Perceived Ease of Use and Use of E-travel Website**

There are many researches which investigate the relationship between perceived ease of use and the use of e-travel website. However, some researches use the role of intention as intervening variable between perceived ease of use and the system usage. There are also researchers who want to examine the direct effect of perceived ease of use to the usage or acceptance of technology without any intervening variables. This research is aimed to investigate how perceived ease of use influences the use of e-travel website directly.

One of the researches which support the relationship between perceived ease of use and the use of e-travel website is a research to investigate the usage of citation database interfaces [17]. They suggested that a citation database interface that is easy to use will be well accepted and used. The results support their suggestion that ease of use significantly affect the usage of CDI [17]. Another research revealed that perceived ease of use is positively related to the internet usage activities like messaging, browsing, downloading and purchasing [26].

The same result also found in a study which is conducted by Brown [1]. This study is aimed to enhance the knowledge by examining perceived ease of use of website technologies in a learning environment in a developing country [1]. The respondents of this study are students of an Academic Development Program at a South African University. Students are given questionnaire after initial training. As expected, the result showed that perceived ease of use predicted the usage of WebCT, but perceived usefulness does not [1].

However, there is also research which does not support this relationship [16]. Ndubisi & Jantan found that perceived ease of use does not influence the use of information system by Malaysian small and medium-sized firms [19]. It is found that Perceived ease of use indirectly influence the use of IS through the role of mediating variable which is perceived usefulness [19]. Based on the previous studies above, the researcher develops a hypothesis as follow:

**H4: Perceived ease of use has significant effect on the use of e-travel website**

**G. Perceived Usefulness and Use of E-travel Website**

A research that investigated the impact of personal system characteristics, technical banking and computing skill on information system (IS) usage of Malaysian small medium firms (SMF) using the TAM theory showed that usage is influenced directly by usefulness [19]. The data is collected through structured questionnaire to randomly selected small and medium-sized firms from the Chinese, Indian, and Malay Chamber of commerce and industry, Malaysia. Therefore, this research revealed that usage of information system by Malaysian small and medium firms is driven directly by their perception of the system’s usefulness, acquired computing skills, and technical backing provided by systems designers or vendors [19].

Another research which supports this relationship is a research which is conducted by Lin and Chou. They developed the research to investigate factors which affect the usage of citation database interfaces (CDI) [17]. It is taken place in National Sun Yat Sen University (NSYSU) and National Kaohsiung First University of Science and Technology (NKFUST) in Taiwan to query two well-known citation databases, ABI/INFORM and Science Direct OnSite (SDOS). The respondents are 128 first-year graduate students. The result of this research showed that CDI usefulness had the strongest influence on CDI usage and acceptance [17].

Teo conducted a research that examined the demographic variables (gender, age, educational level) and motivation variables (perceived ease of use, perceive enjoyment and perceived usefulness) associated with internet usage activities [26]. He would like to examine the direct relationship of those variables. He identified the four generic internet usage activities which are messaging, browsing, downloading, and purchasing. Data is collected through Web page survey and is obtained 1,370 usable responses. The result of this research is extrinsic motivation variable which is perceived usefulness influences all of the four generic activities [26].

A study of effect of management support, training, and user involvement on system usage and satisfaction in Kuwait also shows the same. Rouibah et al. investigated how the organizational factors and human motivations affect information system and information technology usage and user’s satisfaction in Arabic country [21]. They developed a research model which links three organizational factors to IS/IT usage and end-users satisfaction through the mediation of TAM beliefs. The survey instrument that is used is a structured questionnaire to measure individuals’ perceptions to IS/IT acceptance and the primary factors which influence the
end-users’ reaction to the acceptance of IS/IT. The result indicated that PU has a direct impact on IS usage [21]. Based on the previous studies above, the researcher develops a hypothesis as follow:

**H5: Perceived usefulness has significant effect on the use of e-travel website**

**H. Theoretical Framework**

From the hypothesis developed above, it can be concluded that how the factors (enjoyment, perceived usefulness, and perceived ease of use) affect the use of e-travel website is shown as below:

![The Theoretical Framework](image)

Fig. 2 The Theoretical Framework

**IV. DATA ANALYSIS AND RESULT**

The population in this research is users who browse e-travel website. Data gathered through online questionnaires. 128 questionnaires are gathered. To examine the hypotheses that had been developed before, the smartPLS 2.0 is used.

**A. Validity Test**

The results of testing the instrument validity were evaluated based on convergent validity and discriminant validity. It will be measured from the value of outer loading through the process of the algorithm. The indicator is considered valid if it has value of outer loading up 0.70. However, for loading the 0.50-0.70 is still acceptable as long as the value of communality AVE and 0.50 [13].

The first outer loading value shows that there is one indicator which has a value of variable loading below 0.50. it is EY5 indicator (0.446766). As a result, the indicator (EY5) will be removed from the model testing instruments. The revised model was undertaken with the all of loading score was above 0.5.

The other instrument of validity test in this research is discriminant validity. Discriminant validity is measured from the value of the cross loading, by comparing the indicator correlation of that constructs with the other constructs. The result was fulfilled with the rule.

The discriminant validity is not only can be viewed from the value of cross-loading but also can be seen by comparing the root of AVE (Square Root of Average) a construct must be higher than the correlation between latent variables [4].

The comparison of the root AVE of every variable to the correlation among variables shows that each of root AVE for the variable is bigger than correlation among other variables. Hence, it can be concluded that the latent variable has a good discriminant validity.

**TABLE I**

<table>
<thead>
<tr>
<th>AVE</th>
<th>ENJOY</th>
<th>ENJOY</th>
<th>PEOU</th>
<th>PU</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENJOY</td>
<td>0.756456</td>
<td>0.860745</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEOU</td>
<td>0.562688</td>
<td>0.596324</td>
<td>0.750125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU</td>
<td>0.561145</td>
<td>0.603612</td>
<td>0.749347</td>
<td>0.749096</td>
<td></td>
</tr>
<tr>
<td>USE</td>
<td>0.558439</td>
<td>0.545483</td>
<td>0.572415</td>
<td>0.516048</td>
<td>0.747288</td>
</tr>
</tbody>
</table>

Source: Primer Data Processing (2013)

**B. Reliability Test**

Reliability test is aimed to find out the extent of the measurement tools have the accuracy and precision of measurement that are consistent over time. The Instrument reliability in this research is determined by the value of cronbach’s alpha and composite reliability for each block of indicators on reflective constructs. Rule of thumb, value of cronbach’s alpha and composite reliability must be greater than 0.7 though 0.6 is still acceptable [6]. The value of cronbach’s alpha of enjoyment, PEOU, PU, and the use are all greater than 0.7-0.892621, 0.843391, 0.867030, 0.724289 simultaneously. The same thing goes to composite reliability value that shows all of variables are greater than 0.7.

**C. Hypothesis Test**

T statistics shows the significance of paths among variables in the structural model. Each independent variable testing in this structural model study had an impact on its dependent variable except for the perceived usefulness to the use. The value of T-statistics for all hypotheses are all greater than 1.64. Test relationships between variables showed that the influence of ease of use variables on the use is positive (0.543596) and significant at α = 0.05 with statistical value 9.509567 > 1.64. Ease of use variable has positive effect on the usefulness (0.604284) and significant at α = 0.05 with statistical value 9.344235 > 1.64.

**TABLE II**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesis Statement</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Enjoyment has significant effect on perceived ease of use</td>
<td>Supported *</td>
</tr>
<tr>
<td>H2</td>
<td>Enjoyment has significant effect on perceived usefulness</td>
<td>Supported *</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived Ease of use has significant effect on perceived usefulness</td>
<td>Supported *</td>
</tr>
<tr>
<td>H4</td>
<td>Perceived Ease of use has significant effect on perceived use</td>
<td>Supported *</td>
</tr>
<tr>
<td>H5</td>
<td>Perceived usefulness has significant effect on use</td>
<td>Supported *</td>
</tr>
</tbody>
</table>

*) significant at p<0.05

Source: Suports Data PLS (2013)

Enjoyment has a positive effect on ease of use (0.596324) and significant at α = 0.05 with statistical value 11.287383 > 1.96. The impact of enjoyment to usefulness is also positive (0.603612) and significant at α = 0.05 with statistical value 11.409909 > 1.64. The influence of usefulness variable is also positive to use (0.198666) and significant at α = 0.05 with statistical value 1.854449 > 1.64.

**IV. CONCLUSION**

This paper develops the web site success model for Padang travel agent. The final findings of web site success model will be expected to give contributions to travel agents in Indonesia.
From the data analysis, all of hypothesis are significantly supported. This finding is also expected to contribute to business practices in Indonesia which can assist Indonesian managers operating their own web sites to be more effective and efficient.

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