Web Design and Web Brand Image of Online Travel Agent: Its Effect on Purchase Intention Mediated by Trust

Putri Daniela Christine Farida Uli¹, Dwinita Laksmidewi²
¹,²Universitas Katolik Indonesia Atma Jaya, Jakarta, Indonesia
Email: dwinita.laksmi@atmajaya.ac.id

Abstract
E-ticketing and online booking have transformed the aviation industry, hospitality, travel agencies and consumer behavior by providing new ways of communication and service support. Hence, the quality of e-ticketing and online booking websites is an important factor to drive the business. This study aims to analyze the effect of web information design, web visual design, and web brand image on purchase intentions mediated by trust. The data were obtained by conducting a survey to the community using the Online Travel Agent (OTA) website in the DKI Jakarta area. Hypothesis testing uses Structural Equation Model (SEM) analysis with SmartPLS. The results show that web information design has a direct effect on trust but has no significant effect on purchase intention either directly or mediated by the trust variable, web brand image has an effect on purchase intention mediated by trust, while web visual design has no effect on trust or purchase intention.

Keywords: Web Information Design, Web Visual Design, Web Brand Image, Trust, Purchase Intention.

A. INTRODUCTION
Information technology in Indonesia from year to year continues to experience rapid development, especially with the development of the internet. In 2019 the number of internet users in Indonesia is projected to have reached 175 million people, or around 65.3% of the total population of 268 million people (investor.id, 2019). The increase in internet users was mainly triggered by the increasingly widespread use of smartphones in Indonesia. The website, which is one of the facilities of the internet, makes it easier for someone to access various information in the form of text, images, video, sound, and animation (www.termasmedia.com, 2017). The development of the internet as a marketing medium has become a global phenomenon leading to an increase in e-commerce (imersmuda.com, 2017). The development of the internet as a marketing medium has become a global phenomenon leading to an increase in e-commerce (imersmuda.com, 2017).

In this digital era, e-commerce plays an important role as an answer to the economic challenges that will be faced by companies in the future, where consumer needs will become increasingly diverse and the tendency for consumer attitudes to prefer convenience and speed in shopping. World e-commerce trends continue to increase from year to year (Technasia, 2016). E-commerce business has developed into a very potential. Apart from producing various online shops in the retail industry, some of the influences from other e-commerce developments are e-ticketing in the airline industry, as well as online booking in the hospitality industry.

E-ticketing and online booking have changed the airline, hotel, travel agency and consumer behavior industries by reducing expenses and providing new ways of
communicating and providing service support. Aviation and hotel service providers try to offer services through electronic infrastructure, especially through a website. According to the Nielsen survey, traveling occupies the top position in online shopping activities for Indonesians.

Because of this, many airlines are currently innovating by working with several Online Travel Agent (OTA) companies to increase online ticket sales. However, along with the development of technology and the internet in Indonesia, the level of cybercrime has also increased. Cybercrime refers to criminal activity with computers, such as: identity fraud, credit card fraud, hacking, and other fraud. One of the techniques is phishing – web forgery, which is the creation of a fake website whose appearance is designed in such a way as to be the same as the original website, so that users cannot tell the difference. This fake website was created with the aim of getting user usernames and passwords for users who typed incorrectly on the fake website (indozone, 2019). Another complaint is the throwing of errors regarding the information provided on the OTA website, where users do not get tickets even though they have paid in full for tickets purchased through OTA (cnnindonesia, 2018). There are also users whose accounts have been hacked.

In the academic literature, website quality has generally been recognized as an important factor for driving online business. Website design quality is very important for any online store to attract customers. Customer satisfaction in e-commerce is related to the quality of website design. Website design represents the way content is arranged in a website. In the context of online shopping, (Ganguly, 2010) has classified design factors as information design, navigation design and visual design. A web brand is defined as a name or logo or design such as a unique symbol that differentiates a product from other competing products (Kim, 2019).

Based on the above explanation, building trust (trust) in online shopping is one of the most important factors for success in the online business environment. Academic researchers are eager to discover important website design factors that develop trust in online shopping (Ganguly, 2010). Previous studies, such as Perdomo, Cardozo, and Serrezuela (2017) provide empirical evidence on how web design builds trust.

This research makes an important theoretical contribution in the field of web design research. There are many researchers who examine the influence of web design, but not many have focused on examining its influence in the context of online travel agencies (OTA). The purpose of this study is to identify and empirically validate website design factors, namely: Web Information Design, Web Visual Design, and Web Brand, which affect Purchase Intention at Online Travel Agencies mediated by Trust.

B. LITERATURE REVIEW

1. Web Design

In every online store, the quality and design of the website are very important in attracting customers to buy the products or services provided. Customer
satisfaction in e-commerce is closely related to the design quality of the website. According to Ganguly (2010), the design of a website describes the way the content is arranged on the website. When customers interact with online stores of interest, customers tend to prefer technical interfaces compared to face to face with their employees. Therefore, the design of the online shop website, which acts as an interface, plays an important role in influencing customer interest and satisfaction with the products and services provided.

Empirically, website design and service quality perceived by website users will affect overall user satisfaction. In addition, the design of a website also influences purchase intention (Ganguly, 2010). From an architectural perspective, there are four components to web design, namely: content, structure, interaction, and presentation. Website content contains information presented on web pages. Structure describes how and where information is organized. Interaction represents the ease with which users can browse web pages. The presentational aspect of a design represents the user's emotional appeal to a website, such as the presence of visual aids. Ganguly (2010) has classified design factors into: information design, navigation design and visual design. Information design (information design) includes the content of a website and the information structure provided by a website. Navigation design is the interaction component of a website, and visual design is the presentation component of a website design.

2. Trust

Trust is one of the important keys for consumers in making decisions to use a product or service. Without trust, it will be difficult for both parties to make a transaction. Consumer online behavior, according to Gottoya (2018) is influenced by cognitive trust and affective trust. Cognitive trust is based on rational thinking about who consumers trust, in what situations, is a cognitive process based on available data. Meanwhile, affective trust is based on one’s feelings, instincts, and intuition (Punyatoya, 2018). Pututoya’s research (2018) shows that websites play an important role in attracting consumers and making consumers trust them.

H1: Web Information Design has an effect on trust
H2: Web Visual Design has an effect on trust

3. Web Brands

A web brand is defined as a name or logo or design such as a unique symbol that differentiates a product from other competing products (Kim, 2019). In the service industry, the company name is the main brand. Branding is important in helping consumers remember a product and its benefits (Chang, 2008).

Even the brand is said to be more important or reliable than information related to a product/service, because when there is a lack of information about a product, buyers can just mention the brand to be able to find the product they are looking for. Brands are easier for buyers to remember. Brands can be a substitute for missing
information. Brand is defined as a set of assets associated with a name or symbol to add value to a company’s products/services (Chang, 2008).

Kim (2019) defines brand image as a consumer perception that is formed in their memory as a reflection of the brand association. This brand association in the user’s memory/mind includes symbolic meanings and functions, which are tangible or intangible quality aspects of certain goods or service attributes. Brand image can also come from consumer experience, as well as word-of-mouth (Chang, 2008). Kim’s research (2019) shows that brands have a positive effect on consumer trust.

H3: Web Brand Image has an effect on trust

4. Purchase Intentions

Purchase Intention is the possibility of someone to buy a product or use certain services. Purchase intention is the final decision of a number of considerations for e-commerce consumers. Ganguly, B.e. (2010) argue that consumers’ desire to buy from online vendors will increase if producers are able to generate consumer trust. Increased consumer trust in online vendors can increase buying intensity, and enable companies to earn greater profits (Chen et al., 2015). In addition, understanding consumers’ purchasing intentions can enable companies to predict consumer retention (memory) of a particular brand (Kudeshia et al., 2017) and help companies to design their marketing communications (Laksmidewi, Susianto & Afiff, 2017).

H4: Trust has an effect on Purchase Intention

Ganguli, Boudhayan. et al. (2010) identified and empirically validated website design factors that influence trust in online stores. They examine the role of cultural variables in the relationship between website design factors and trust, and also between trust and its consequences; and shows that trust plays a role in the relationship between website design factors and intention. To find out whether a company’s website provides additional benefits that can trigger online purchase intentions, Sam, Mohd & Tahir, Md (2009) stated six factors that influence website quality: usability, website design, information quality, trust, perceived risk and Empathy as a trigger for the intention to purchase airline tickets online. In addition, Chang, Hsin & Chen, Su (2008) demonstrated that the online environment (website quality and website brand) influences customer purchase intentions towards online shopping and whether this impact is mediated by customer trust and perceived risk. Their research assesses the degree of trade-off between consumer trust & perceived risk in the context of the online shopping environment.

H5: Web Information Design has a direct effect on Purchase Intention
H6: Web Visual Design has a direct effect on Purchase Intention
H7: Web Brand Image has a direct effect on Purchase Intention
H8: Web Information Design has an effect on Purchase Intention mediated by Trust
H9: Web Visual Design has an effect on Purchase Intention mediated by Trust
H10: Web Brand Image has an effect on Purchase Intention mediated by Trust
C. METHODS

In this study, there were 5 variables studied, namely web information design variables, web visual design variables, web brand image variables, trust variables, and purchase intention. This study has 3 exogenous variables, namely web information design variables, web visual design variables, and web brand image variables. The endogenous variable in this research is the purchase intention variable, and the mediating variable is the trust variable. This research was conducted by conducting an online survey of web users who have used the OTA website, from January to April 2020, using the nonprobability sampling method, purposive sampling. Hypothesis testing uses Structural Equation Model (SEM) analysis with SmartPLS software.


D. RESULTS AND DISCUSSION

The reliability and validity test of the questionnaire was carried out using the PLS algorithm on smart PLS. The validity of an indicator can be seen from its Average Variance Extracted (AVE) value, with indicators above 0.5. Thus, all indicators for each variable can be declared valid (table 1). Based on the results in Table 1, the Cronbach's alpha value for all variables is above 0.7, so all variables are reliable.
The results of the multicollinearity test for all variables have values below 5 (Table 2). This indicates that all variables used in the research model are free from multicollinearity.

**Table 2 Result of Multicollinearity**

<table>
<thead>
<tr>
<th></th>
<th>Brand Image</th>
<th>Information Design</th>
<th>Purchase Intention</th>
<th>Trust</th>
<th>Visual Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image</td>
<td>3.191</td>
<td>2.446</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Design</td>
<td>2.689</td>
<td>2.314</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td></td>
<td></td>
<td></td>
<td>3.073</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>2.578</td>
<td>2.568</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual Design</td>
<td>2.578</td>
<td>2.568</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Picture 2 Result of Hypothesis**

The research model used in the test can be seen in Figure 2. In the research test on smart PLS, a variable can be said to influence other variables with a P value of less
than 5% (<0.05). Table 3 can be seen from the research results showing that web information design has a significant influence on trust as indicated by the P values, which are equal to 0.001. Thus, it can be concluded that hypothesis 1 is accepted.

**Table 3 Result of Direct Effect**

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand Image → Purchase Intention</strong></td>
<td>0.404</td>
<td>0.404</td>
<td>0.106</td>
<td>3.827</td>
<td>0</td>
</tr>
<tr>
<td><strong>Brand Image → Trust</strong></td>
<td>0.492</td>
<td>0.488</td>
<td>0.073</td>
<td>6.741</td>
<td>0</td>
</tr>
<tr>
<td><strong>Information Design → Purchase Intention</strong></td>
<td>0.131</td>
<td>0.142</td>
<td>0.091</td>
<td>1.433</td>
<td>0.152</td>
</tr>
<tr>
<td><strong>Information Design → Trust</strong></td>
<td>0.35</td>
<td>0.343</td>
<td>0.101</td>
<td>3.468</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Trust → Purchase Intention</strong></td>
<td>0.284</td>
<td>0.28</td>
<td>0.113</td>
<td>2.512</td>
<td>0.012</td>
</tr>
<tr>
<td><strong>Visual Design → Purchase Intention</strong></td>
<td>0.012</td>
<td>0.008</td>
<td>0.084</td>
<td>0.148</td>
<td>0.883</td>
</tr>
<tr>
<td><strong>Visual Design → Trust</strong></td>
<td>0.057</td>
<td>0.068</td>
<td>0.102</td>
<td>0.554</td>
<td>0.58</td>
</tr>
</tbody>
</table>

The test results show that web visual design has no significant effect on trust, this can be seen from the P Values, which are equal to 0.58 (> 0.05). Thus hypothesis 2 is rejected. From the results of the study, it can be concluded that only the appearance of the OTA website itself is not enough to generate the trust of its users. The appearance of the site that is attractive and pleasing to the eye is not enough because in this modern era there are more and more competing OTA websites with no less attractive visuals, as well as many scams that use fake websites with an appearance that resembles the original website, so if you only rely on the visual web, users will be fooled and trapped in fraud.

The test results show that web brands have a significant influence on trust, the P values are 0 (< 0.05). Thus, it can be concluded that hypothesis 3 is accepted. The test results show that trust has a significant effect on purchase intention, p=0.012. Thus, it can be concluded that hypothesis 4 is accepted.

The test results show that web information design has no significant effect on purchase intention, p=0.152. Then hypothesis 5 is rejected. Based on the research, it can be seen that the website information alone is not enough to trigger the user's desire to buy on the OTA web. users tend to only use the OTA web to find the information they need, compare prices, and see recommendations for popular places.

The test results show that web visual design has no significant effect on purchase intention, p=0.883. Thus hypothesis 6 is rejected. Based on the research, it can be seen that only the visual web is not enough to trigger the purchase intention of its users. In this era where technology and the internet are increasingly advanced, it is not difficult for hackers to create fake websites that are very similar visually to the original website, so OTA website users tend to be more careful when booking tickets or online transactions on the website. Because if users easily believe because of the visuals or appearance of a website then are triggered to make purchases carelessly,
they will be increasingly vulnerable to fraud. The test results show that web brands have a significant influence on purchase intention, $p = 0.000$. Then hypothesis 7 is accepted.

### Table 4 Result of Indirect Effect

<table>
<thead>
<tr>
<th>Original Sample</th>
<th>Original Sample Mean</th>
<th>Original Sample Standard Deviation</th>
<th>$T$ Statistics</th>
<th>$P$ Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image → Trust → Purchase Intention</td>
<td>0.14</td>
<td>0.137</td>
<td>0.06</td>
<td>2.327</td>
</tr>
<tr>
<td>Information Design → Trust → Purchase Intention</td>
<td>0.099</td>
<td>0.097</td>
<td>0.051</td>
<td>1.933</td>
</tr>
<tr>
<td>Visual Design → Trust → Purchase Intention</td>
<td>0.016</td>
<td>0.019</td>
<td>0.031</td>
<td>0.519</td>
</tr>
</tbody>
</table>

Table 4 shows that web information design has no significant effect on purchase intention mediated by trust, $p=0.054$. Then hypothesis 8 is rejected. Based on the research results, it can be seen that the information provided on the website has been able to build the trust of its users to continue to be used as a search tool for information about prices, promos, and favorite destinations that are trending, because the information is considered accurate and can meet the needs of users for information which are desired. However, even though it can generate user trust, information on the web alone is not enough to trigger users to be interested in making purchases or bookings on the web, because users tend to only use it to search for the information they want.

Table 5 shows that web visual design has no significant effect on purchase intention mediated by trust, $p=0.604$. Thus hypothesis 9 is rejected. Based on the research results, it can be seen that the attractive and unique appearance or visuals of the OTA web alone cannot trigger the trust of its users either because there are already many competing OTA sites with an equally attractive appearance, or because of the risk of phishing scams with fake websites, so users tend to be more careful. So, the customers intention to buy has not been triggered.

Web brand has a significant influence on purchase intention mediated by trust, $p=0.02$ (Table 5). Thus, it can be concluded that hypothesis 10 is accepted.

In the study there were 5 hypotheses that were rejected and 5 hypotheses accepted. Based on these results it can be seen that web brand image or web reputation has a significant influence on consumer purchase intention. Therefore, OTA needs to improve and develop the quality of its website in order to increase consumers’ buying intentions.

All indicators in the research model used have met the reliability and validity tests, this indicates that all indicators in each variable are reliable and valid to use. From the results of testing the model used, it can be obtained an overview of the direct effect and indirect effect between variables. In Table 5 it can be seen the results of the direct effect and indirect effect between variables.
Table 5 Result of Direct Effect and Indirect Effect

<table>
<thead>
<tr>
<th>Direct Effect</th>
<th>Variable</th>
<th>P Values</th>
<th>Indirect Effect</th>
<th>Variable</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image → Purchase Intention</td>
<td>0</td>
<td>Brand Image → Trust → Purchase Intention</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image → Trust</td>
<td>0</td>
<td>Information Design → Trust → Purchase Intention</td>
<td>0.054</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Design → Purchase Intention</td>
<td>0.152</td>
<td>Information Design → Trust → Purchase Intention</td>
<td>0.054</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Design → Trust</td>
<td>0.001</td>
<td>Visual Design → Trust → Purchase Intention</td>
<td>0.604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust → Purchase Intention</td>
<td>0.012</td>
<td>Visual Design → Purchase Intention</td>
<td>0.604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual Design → Purchase Intention</td>
<td>0.883</td>
<td>Trust</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual Design → Trust</td>
<td>0.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 Result of Hypothesis Test

<table>
<thead>
<tr>
<th>Ha</th>
<th>Exogenous Variable</th>
<th>Mediation Variable</th>
<th>Endogenous Variable</th>
<th>P Values</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Web Information Design</td>
<td>-</td>
<td>Trust</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>Web Visual Design</td>
<td>-</td>
<td>Trust</td>
<td>0.58</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>Web Brand Image</td>
<td>-</td>
<td>Trust</td>
<td>0</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>Trust</td>
<td>-</td>
<td>Purchase Intention</td>
<td>0.012</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>Web Information Design</td>
<td>-</td>
<td>Purchase Intention</td>
<td>0.152</td>
<td>Rejected</td>
</tr>
<tr>
<td>H6</td>
<td>Web Visual Design</td>
<td>-</td>
<td>Purchase Intention</td>
<td>0.883</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7</td>
<td>Web Brand Image</td>
<td>-</td>
<td>Purchase Intention</td>
<td>0</td>
<td>Accepted</td>
</tr>
<tr>
<td>H8</td>
<td>Web Information Design</td>
<td>Trust</td>
<td>Purchase Intention</td>
<td>0.054</td>
<td>Rejected</td>
</tr>
<tr>
<td>H9</td>
<td>Web Visual Design</td>
<td>Trust</td>
<td>Purchase Intention</td>
<td>0.604</td>
<td>Rejected</td>
</tr>
<tr>
<td>H10</td>
<td>Web Brand Image</td>
<td>Trust</td>
<td>Purchase Intention</td>
<td>0.02</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

The web information design that has been provided by the OTA website has proven to have an impact on respondents' trust. Trust can be built because the information provided on the website is useful, detailed, and of good quality. The information that respondents want is easy to find, easy to access, easy to understand and in accordance with the real conditions, both the location of the place to travel, the facilities, to the means of transportation available and the price.

This then contributed to encouraging respondents to return to using the OTA web to find information about traveling activities. According to Ganguly (2010), information design is one of the design factors in the context of online shopping. Sam & Tahir (2009) also explained that the quality of information refers to the amount of information that can be obtained, the accuracy of the information, and the form of information about the products provided and the services offered on a website.

However, the rejection of hypothesis 5 and hypothesis 8 concludes that although the information design provided by the OTA website is useful so that it can
encourage respondents' trust, this information design has not been able to raise respondents' buying intentions, either directly or through intermediaries of respondents' trust in it. It is possible that this information is only used as a comparison between prices on the OTA website and prices that can be obtained through other OTA websites.

The web visual design that has been provided by the OTA web has not been proven to have an effect on respondents' trust in the website. With this it can be concluded that the OTA web approach through its visual web has not yet given an impression or effective interaction in order that respondents can trust the web so that it can trigger buying intentions.

According to Sam & Tahir (2009), proper content on the web including text, images, graphics, layout, sound, movement is essential for effective web design. Because of this, the OTA web appearance can be considered insufficient in attracting respondents' attention to re-use it, or it is considered too simple and monotonous because there are already many other websites that use the same interface. According to Ganguly (2010) interaction represents the user's convenience in exploring web pages. The presentational aspect of the design represents the emotional appeal of the website.

The web brand image that has been provided by the OTA website has proven to have an impact on respondents' trust. Satisfaction with products and services also maintains OTA relations with users, thereby increasing purchase intention and repeat use of OTA again. According to Chang (2008), there are three images that contribute to the formation of a brand's image, namely: the image of the founder (company image), the product/service offered, and the image of its users. Experiences felt by consumers, how to market, communicate products/services and even word of mouth from consumers regarding products/services can be a trigger that builds a brand image (Romaniuk and Sharp, 2003).

E. CONCLUSION

Based on the results of testing the hypothesis in this study, it can be concluded that web brand image has a significant direct effect on trust. Web brand image also has a significant influence on purchase intention, both directly and mediated by trust. Based on the results of web brand testing, it is felt that it has been able to trigger an increase in user trust in the website so that it can encourage users' buying intentions.

Web information design has a significant direct effect on trust, but does not have a significant effect on purchase intention either directly or mediated by the trust variable for the respondents in this study. Web information design is felt to be capable of building user trust but is felt to be insufficient in triggering users to buy the products or services provided.

Web visual design does not have a direct influence on trust or purchase intention. Web visual design has not been able to build user trust so that users have not been encouraged to buy products or services provided on the web. Trust has a
significant direct influence on purchase intention. The role of trust is very important to build purchase intention.

For further research, repeat research can be carried out on different objects or in different populations. In future studies, it is hoped that researchers can add other variables such as: word of mouth variables, web navigation design, web quality, price promotion, advertising endorse, or other variables.

REFERENCES


