Impact of Online Travel Booking Application Quality towards Purchase Intention in Indonesia

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Abstract:

Many mobile vendors attempted to development mobile device with technology innovation. However, the increasing amount of mobile application developers caused the competition among them to attract new or current users become more amazing and difficult. The mobile application should have quality to attract customer to use mobile application in order to conduct transportation services transaction or purchase intention. In Indonesia, one of the most downloaded mobile applications is mobile commerce application for transportation services. This study adapted research work by Lit et al (2017) to identify component of application quality that influenced to purchase intention of online travel booking based on Indonesian people perspectives. As the result, complementary has the biggest influence purchase intention with t-value 6.771. Moreover, entertainment has influence to purchase intention with t-value 5.334. usability has influence to Purchase Intention with t-value 4.620. Ease of use has influence to purchase intention with t-value 3.641.

Keywords —**Online travel, application quality, PLS-SEM, factors analysis.**
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I. INTRODUCTION

The increasing number of transportation services is supported by technology development, especially mobile technology and internet. Based on consumers survey result by the largest organization in Indonesia named Yayasan Lembaga Konsumen Indonesia (YLKI) found that the proportion of people interesting to use mobile commerce application for transportation services in Indonesia was 77.7 percent [1].

One of the most downloaded mobile application in Indonesia is mobile commerce application for transportation services [2]. The attraction of transportation services is supported by mobile technology through providing service (mobile application) and device (smartphone) to ease people in transportation services booking.

However, the increasing amount of mobile application developers caused the competition among them to attract new or current users become more amazing and difficult. Every developer should be formulated the best concept and design to launch the best quality of mobile application.

The mobile application should have quality to attract customer to use mobile application in order to conduct transportation services transaction or purchase intention. The component of quality is included usability, ease of use, entertainment and complementarity [3].

Related research about application quality has been by many researchers. In 2000, L. Olsina and G. Rossi conducted research about the measurement

mobile application quality using WebQEM [4]. In 2009, Bai et al. completed research regarding application quality factors to satisfaction [5]. In 2012, Hsu et al conducted research about influencing factors of website quality, customer satisfaction and purchase intention based on perceived playfulness and perceived flow [6]. In 2017, Lit et al completed research regarding influencing factors of web quality (usability, ease of use, entertainment and complementarity) to purchase intention [3].

This study adapted research work by Lit et al (2017) [3]to identify component of website quality that influenced to purchase intention of online travel booking based on Indonesian people perspectives.This research is organized as follows, introduction, literature review, research methodology, result and conclusion.

II. LITERATURE REVIEW

This section will deliver literature review regarding usability, ease of use, entertainment, complementarity and related of work of this study.

A. Usability

Usability is fundamental component of user experience that is support factors to purchase intention. Recent research mentioned that usability will impact to perception and behaviour of seller in online commerce. Lee and Kozar (2012) investigated the direct and indirect effect of usability factor (i.e. learnability, readability, simplicity, content relevance, and interactivity) to purchase intention [7]. Moreover, Aziz and Kamaludin (2014) suggested that usability cannot observe directly because it is depended on user perception of user or people group as research object [8].

B. Ease of Use

A website or application must be ease of use including ease to understand and navigate [8]. Shen and Chiou (2010) suggested that factor of *ease of use* may influence to purchase intention in online commerce environment. However, important level of ease of use can be identified based on short or long term interaction to website or application [9].

C. Entertainment

Entertainment is business practice that is applied to facilitate business relation and promote purchase of product [10]. In term of website quality domain, entertainment can be applied to user interface by designing it with attractive interface and supporting positive feedback of user experience [11]. The attractive design of user interface can be identified through aesthetic appeal, interactivity, novelty and flexibility, affect, importance, commonality and simplicity, and personalization [12].

D. Complementarity

Complementarity is presence of effect from component interaction of user interface design to user [13]. Dimension of complementarity is reflected by online completeness of transactions, channels better than alternative ones, and consistent image [14].

E. Related Work

Related research about application quality has been by many researchers. In 2000, L. Olsina and G. Rossi conducted research about the measurement mobile application quality using WebQEM [4]. In 2009, Bai et al. completed research regarding application quality factors to satisfaction [5]. In 2012, Hsu et al conducted research about influencing factors of website quality, customer satisfaction and purchase intention based on perceived playfulness and perceived flow [6]. In 2017, Lit et al completed research regarding influencing factors of web quality (usability, ease of use, entertainment and complementarity) to purchase intention [3].

III.   RESEARCH METHODOLOGY

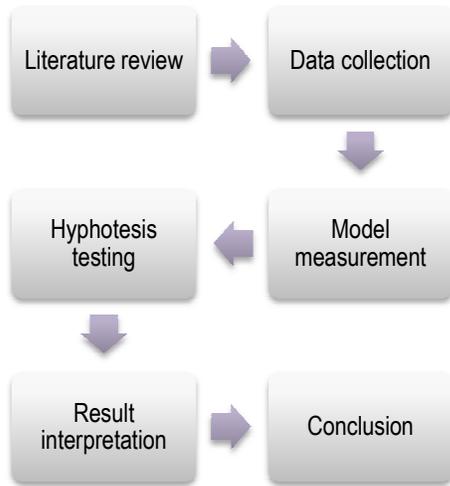The proposed research phase for completing this study aim is presented in Figure 1 below.

Fig. 1 Research phase

In the first phase, we conducted a literature study about related research models that addressed the quality factors of website in research databases, i.e. SciVerse ScienceDirect, IEEEXplore, SpringerLink and GoogleScholar. The second stage, we conducted data collection by spreading questionnaires to relevant respondents. The target of data collection is obtained more than 900 data. The next phase tested model and hypothesis using data that have been collected using PLS-SEM. Partial Least Square (PLS) is one of the alternative model estimation methods for managing Structural Equation Modeling (SEM). The method of measuring factors used a one-tail T-test using the SmartPLS. The result of data analysis from the previous stage is interpretedto define appropriate implications. The last phase is the conclusion of the research result to answer research question.

A. Research Model

This study adapted research model by Lit et al (2017) [3] to investigate component of quality that influenced to   purchase intention in online travel booking application. The proposed research model of this study is presented in Figure 2.
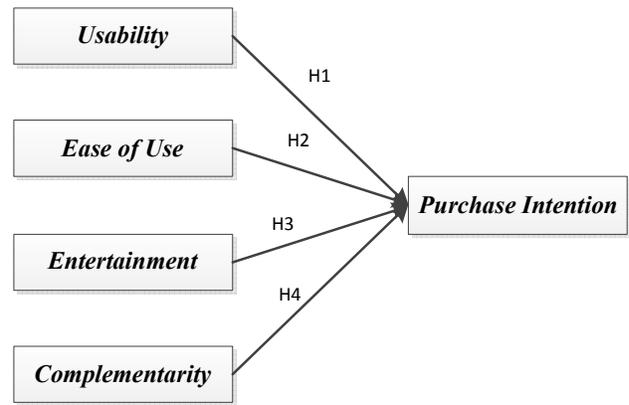

Fig. 2 Research model

There four hypotheses that are proposed in this research based on research model above:

H1: The usability of online travel booking application positively influences the purchase intention of consumers

H2: The ease of use of online travel booking application positively influences the purchase intention of consumers

H3: The entertainment of online travel booking application positively influences the purchase intention of consumers

H4: The complementarity of online travel booking application positively influences the purchase intention of consumers.

B. Data Collection

Data collection has been done at the end of 2017. Respondents of this research is user of online travel booking application namely Traveloka. We have distributed a total of 1267questionnaires from October 2017 to December 2017. However, we only obtained 1029 valid questionnaires which is elaborated in Table 1.

TABLE I
RESPONDENTS DETAIL

Classification		Number	Percentage
Gender	Male	498	48.40%
	Female	531	51.60%
Salary	< Rp. 2000.0000	543	52.77%
	Rp. 2000.0000 - Rp. 3000.0000	158	15.35%
	Rp. 3000.0000 - Rp. 4000.0000	199	19.34%
	Rp. 5000.0000 - Rp. 6000.0000	67	6.51%
	> Rp. 6000.0000	62	6.03%
Age	< 21	497	48.30%
	21 – 30	494	48.01%
	31 - 40	23	2.24%
	41 - 50	15	1.46%
	> 51	2	0.19%
Education Level	High school	533	51.80%
	Diploma	97	9.43%
	Undergraduate	373	36.25%
	Graduate	26	2.53%
Total		1029	100%

C. Data Analysis

To make interpretation about data, we used PLS-SEM with support SmartPLS to analysis the collected data. First, we validate co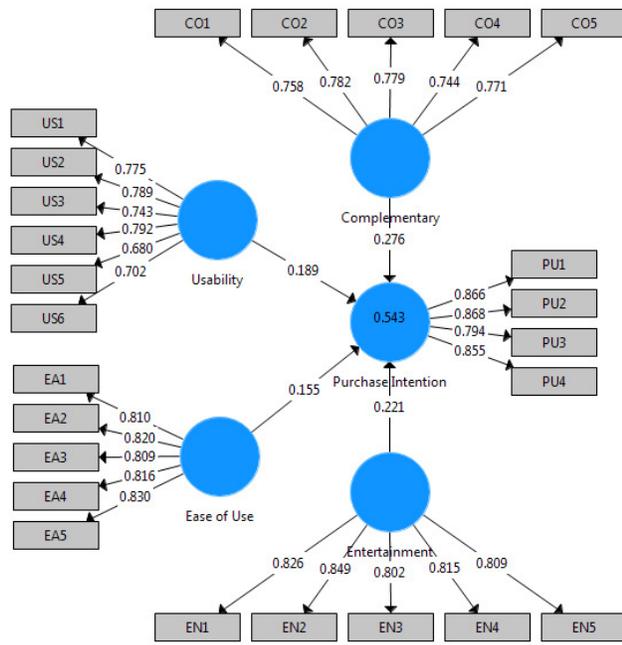nvergent validity based on the value of loading factors which is under 0.7 point. Second, we test reliability based on Cronbach's alpha (CA), composite reliability (CR), and average extracted variance (AVE) [15], [16] that must be not under 0.7 point [17], [18].

IV.   RESULT

To interpret the data, we used research used SmartPLS to process data. First, we validate convergent validity based on the value of loading factors which is under 0.7 point. Based on result (see Table 2 and Figure 3), on item US5 have score below 0.7, however, it can be accepted.

TABLE II
LOADING FACTOR

Factor	Item	Complementary
Complementary	CO1	0.758
	CO2	0.782
	CO3	0.779
	CO4	0.744
	CO5	0.771
Ease of Use	EA1	0.810
	EA2	0.820
	EA3	0.809
	EA4	0.816
	EA5	0.830
Entertainment	EN1	0.826
Purchase Intention	EN2	0.849
	EN3	0.802
	EN4	0.815
	EN5	0.809
	PU1	0.866
	PU2	0.868
	PU3	0.794
	PU4	0.855
Usability	US1	0.775
	US2	0.789
	US3	0.743
	US4	0.792
	US5	0.680
	US6	0.702

Fig. 3 Loading Factor

Factor	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Complementary	0.825	0.827	0.877	0.588
Ease of Use	0.875	0.876	0.909	0.667
Entertainment	0.879	0.883	0.911	0.673
Purchase Intention	0.868	0.874	0.910	0.717
Usability	0.842	0.847	0.884	0.559

We used significant level 0.05 with two-tails for hypothesis testing. According to data analysis which is presented in Figure 4 and Table 3, Complementary has the biggest influence Purchase Intention with t-value 6.771. Moreover, Entertainment has influence to Purchase Intention with t-value 5.334. Usability has influence to Purchase Intention with t-value 4.620. Ease of Use has influence to Purchase Intention with t-value 3.641.

Second, we test reliability based on Cronbach's alpha (CA), composite reliability (CR), and average extracted variance (AVE) [15], [16] that must be not under 0.7 point [17], [18] as shown in Table 2.

Factor	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Complementary -> Purchase Intention	0.276	0.278	0.041	6.771	0.000
Ease of Use -> Purchase Intention	0.155	0.156	0.043	3.641	0.000
Entertainment -> Purchase Intention	0.221	0.219	0.041	5.334	0.000
Usability -> Purchase Intention	0.189	0.190	0.041	4.620	0.000

V. CONCLUSIONS

In this research, from a total of 1267 questionnaires collected on October 2017 to December 2017, we only obtained 1029 valid questionnaires. Based on data analysis, complementary has the biggest influence purchase intention with t-value 6.771. Moreover, entertainment has influence to purchase intention with t-value 5.334. usability has influence to Purchase Intention with t-value 4.620. Ease of use has influence to purchase intention with t-value 3.641.

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