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# Consumer-level Factors of Purchase Intention in Online Travel Booking Application Based on Product Perspective

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## ABSTRACT

The increasing number of smartphone users supports new e-business opportunities in various fields or sectors; one of them is the field of transportation. Business in the field of transportation by using smartphones is supported by application named online travel booking application. To support the sustainability of the business, it is necessary to know the factors that significantly affect purchase intention through online travel booking application. To book transportation service through application only relies on detail information that is provided on application or named product diagnosticity. If recent research focused on brand community and brand loyalty, then this research attempted to find whether product diagnosticity influence to perceived quality and product trust and generally impact to purchase intention. As the result, product trust (PT) has the biggest influence to purchase intention (PI) with t-value 19. 18.935. In other hand, variable of perceived quality also has influence to purchase intention (PI), however it is only showed with t-value 3.197. Moreover, the product diagnosticity (PD) supported perceived quality (PQ) and product trust (PT) with t-value 13.992 and 10.702. The variable of product trust (PT) is also supported perceived quality (PQ) with t-value 12.325.

**Keywords :** Product Perspective, PLS, Purchase Intention

## I. INTRODUCTION

Today, the present of technology supports development of new application and new devices [1]. In mobile technology, there are many new technology has been found. It promotes the amount of mobile users year by year to utilize the new technology. Based on a survey by Statistika in 2017, the number of smartphone users in the world reached 2.32 billion users [2]. The increasing number of smartphone users supports new e-business opportunities in various fields or sectors, one of which is the field of transportation. The new e-business concept for transportation is offering transportation service to smartphone users by using application for improving transaction to make it faster and easier.

Business in the field of transportation by using smartphones is supported by application named online travel booking application. The presence of that application thus leading to public interest to book transportation service by using smartphone. The survey, which conducted by the Indonesian Consumers Foundation (Yayasan Layanan Konsumen Indonesia, YLKI for short), showed that almost 77.7 precent of the total respondents stated that they attract to use travel booking application to help them for ordering transportation service [3].

To support the sustainability of the business, it is necessary to know the factors that significantly affect purchase intention through online travel booking application. The factors of purchase intention can be

grouped based on consumer perspective and product perspective. Studies about online travel booking application in consumer perspective has been done by some researchers, i.e. [4], [5] and [6]. Conyette (2011) studied variables of socio and psychographic in online travel booking using Theory of Reasoned Action (TRA). Research of Oktivera dan Wirawan (2015) explained the influence of digital marketing strategies on the way consumers perceive the use of online travel booking. Wang (2016) studied the effect of electronic word-of-mouth on decision making in online travel booking.

In product perspective, studies about online travel booking application has been completed by [7] [8]. Jamilah and Handayani (2016) conducted research influence factors of brand community and brand loyalty in online travel booking. This research attempted to focus on other factors in online travel booking. To book transportation service through application, consumer relies on detail information that is provided on application or named product diagnosticity [8]. If recent research focused consumer perspective on brand community and brand loyalty, then this research attempted to find whether product diagnosticity influence to perceived quality and product trust and generally impact to purchase intention.

## II. LITERATURE REVIEW

This section explained factors that are examined in research model including product diagnosticity, perceived quality and product trust. Moreover, this section also presented related works that are supported and used to complete this research.

### A. Product Diagnosticity

Product diagnosticity showed how much consumers used their trust, experience and knowledge to define the expected quality of product. If consumers only have the limited trust, experience and knowledge to evaluate a product, then consumers will be difficult to make purchase decision [9].

### B. Perceived Quality

Perceived quality related to consumer's point of view regarding a whole of product quality [10]. In this case, perceived quality among people may be different based on quality criteria that was verified by every person [11]. If perceived quality of product is high, then it reflects the high level of product functionality. Hence, if people is pleased to quality of product, then they are willing paying the product with high price [12]

### C. Product Trust

Product trust is psychological mechanism that reflects consumer perspective to openness and integrity of seller [13]. If seller provides clear and correct information about product quality, then trust level will increase and it will maintain good relationship between seller and consumer for next [14], [15]. In marketing, trust is basic construction and critical path to build and influence purchase intention of consumer [16].

### D. *Related Works*

The recent research regarding online travel booking application based on consumer and product perspective have been purposed by [4], [5], [6] and [7]. Conyette (2011) research findings related to variables of socio and psychographic in online travel booking using Theory of Reasoned Action (TRA) [6]. Research of Oktivera dan Wirawan (2015) studied about the influence of digital marketing strategies on the way consumers perceive the use of online travel booking [5]. Wang (2016) observed the effect of electronic word-of-mouth on decision making in online travel booking [17]. Then, Jamilah and Handayani (2016) completed study about influence factors of brand community and brand loyalty in online travel booking [7].

## III. METHODOLOGY

This section presented data collection, research model and data analysis. In data collection section is described valid and invalid data, data cleaning and respondent background. In the research model section is reviewed questionnaire item, Likert-scale, and hypothesis. Then, in data analysis is presented analysis method and criteria.

### A. Data Collection

A total of 1265 questionnaires were distributed through GoogleForm from 28 December 2017 until 28 January 2018, and 1258, or 99% of questionnaires were returned by the respondents which are users of online travel booking named Traveloka. As many 206 questionnaires were not included into the research data set because the respondents input same answer for all questions, i.e. 99 respondents answer 5 (strongly agree), 71 respondents answer 4 (agree), 30 respondents answer 3 (the midpoint of the scale), 1 respondents answer 2 (disagree) and 5 respondents answer 1 (strongly disagree).

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 162 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 42 | delete3 |
| 163 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 42 | delete3 |
| 164 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 42 | delete3 |
| 165 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 42 | delete3 |
| 166 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 42 | delete3 |
| 167 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 42 | delete3 |
| 168 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 28 | delete2 |
| 169 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | delete1 |
| 170 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | delete1 |
| 171 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | delete1 |
| 172 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | delete1 |
| 173 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | delete1 |

Fig. 1 Example of questionnaires elimination

To eliminate invalid questionnaires, we used IF-logic and filtering from Microsoft Excel software. At the beginning, we grouped questionnaires with total scores that are indicated contained same answer for all questions, i.e. 14, 28, 42, 56a and 70 by using IF-logic with codes =IF(O2=14,"delete1", IF(O2=28,"delete2", IF(O2=42,"delete3", IF(O2=56,"delete4", IF(O2=70, "delete5","")))))). Then, those groups sorted and filtered to ensure the questionnaires have same answer for all questions as depicted on Figure 1. Finally, as many 1052 valid questionnaires were input into research data set to complete data analysis. The distribution of respondent background is presented in Table 1.

TABLE I
DEMOGRAPHIC PROFILE OF RESPONDENTS

| Classification | | Number | Percentage |
|---|---|---|---|
| Gender | Male | 520 | 49.43% |
| | Female | 532 | 50.57% |
| Age | < 21 | 508 | 48.29% |
| | 21 – 30 | 504 | 47.91% |
| | 31 - 40 | 26 | 2.47% |
| | 41 - 50 | 12 | 1.14% |
| | > 51 | 2 | 0.19% |
| Education Level | High school | 543 | 51.62% |
| | Diploma | 100 | 9.51% |
| | Undergraduate | 383 | 36.41% |
| | Graduate | 26 | 2.47% |

| Classification | | Number | Percentage |
|---|---|---|---|
| Salary | < Rp. 2000.0000 | 552 | 52.47% |
| | Rp. 2000.0000 - Rp. 3000.0000 | 160 | 15.21% |
| | Rp. 3000.0000 - Rp. 4000.0000 | 205 | 19.49% |
| | Rp. 5000.0000 - Rp. 6000.0000 | 71 | 6.75% |
| | > Rp. 6000.0000 | 64 | 6.08% |
| Total | | 1052 | 100% |

**B.** *Research Model*

In this study, research model adapted model from Buaprommee and Polyorat (2016) which is evaluated product diagnosticity, perceived quality and product trust to purchase intention. Some variables have been deleted in this research to focus in product diagnosticity, perceived quality and product trust. The research model of this study is presented in Figure 2.

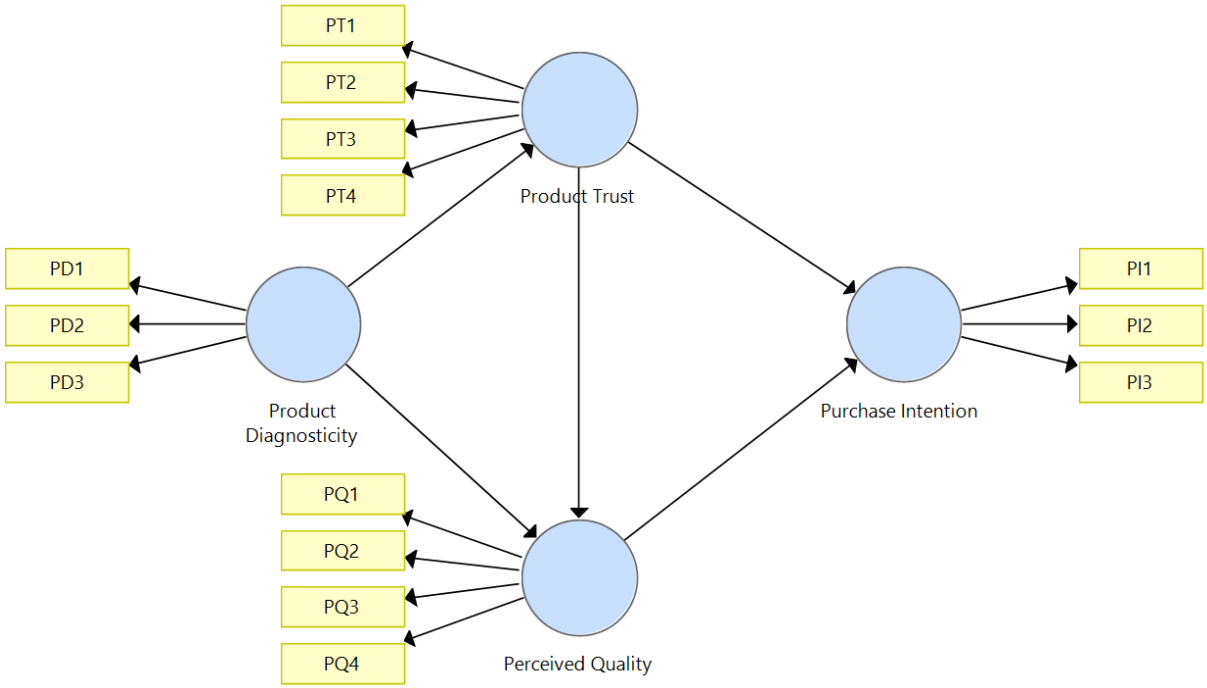


Fig. 2 Research model

Based on research model above, six hypotheses can be stated:

**Hypothesis 1:** Product diagnosticity of transportation service influence perceived quality of the offered product.

**Hypothesis 2:** Product diagnosticity of transportation service will positively influence consumer trust regarding the offered product.

**Hypothesis 3:** Perceived quality of transportation service will positively influence

consumer trust regarding the offered product.

**Hypothesis 4:** Perceived quality of transportation service will positively influence purchase intention for the offered product.

**Hypothesis 5:** Consumer trust in transportation service will positively influence purchase intention for the offered product.

**Hypothesis 6:** Consumer trust in in transportation service will mediate the impact of perceived quality of in transportation service on purchase intention for the offered product.

### C. Data Analysis

To analysis data, this research used SmartPLS to support analysis process. The result of data analysis will be used to answer research questions and hypotheses [18], [19]. To validate structural model, this research used a partial least squares (PLS) regression by using bootstrap resampling procedure with 1052 data. To validate convergent validity, we deleted any questionnaire items whose loading factors were not significant at 0.7. Then, to ensure reliability of model, we validated based on composite reliability (CR), Cronbach's alpha (CA) and average extracted variance (AVE) [20], [21]. The score of composite reliability (CR), Cronbach's alpha (CA) and average extracted variance (AVE) alpha must be greater than 0.7 [22], [23].

## IV. RESULTS AND DISCUSSION

The result of data analysis used a partial least squares (PLS) regression by running bootstrap resampling procedure with 1052 data is presented in this section. In the beginning, we ensured questionnaire items or indicators whose loading factors were not significant at 0.7. The indicators were under 0.7 must be deleted. The aim of indicators elimination is to increase score of composite reliability (CR) and average variance extracted (AVE). In this research, all indicators are retained because their outer loadings or loading factors are all 0.7 or higher as shown in Figure 1.

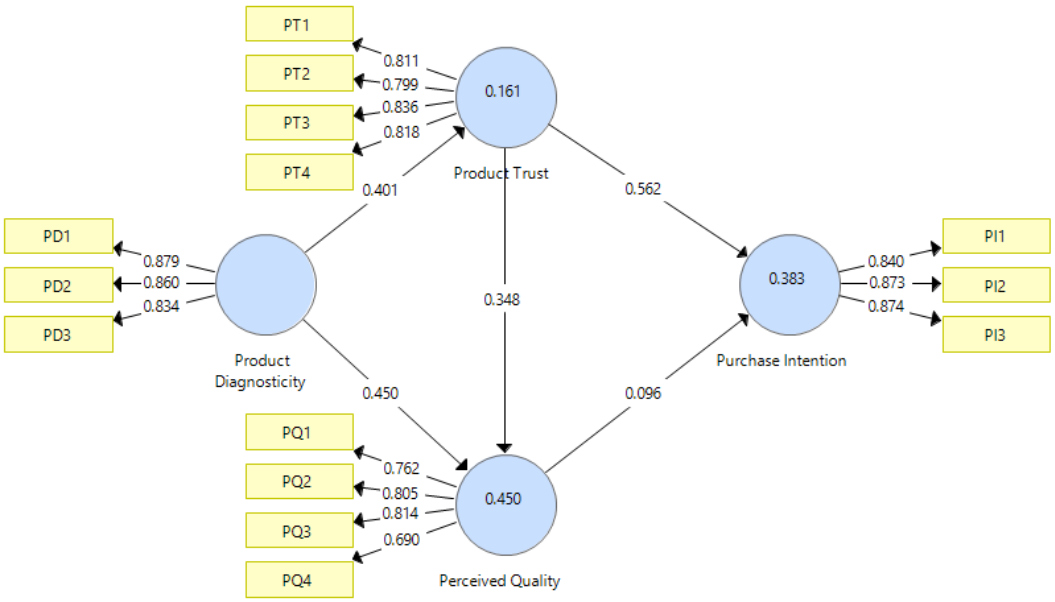


Fig. 3 Research model with outer loading value

In this research, the composite reliability (CR) for the constructs Perceived Quality (PQ), Product Diagnosticity (PD), Product Trust (PT) and Purchase Intention (PI) are shown to be 0.853, 0.893, 0.889 and 0.897 respectively, indicating high levels of internal consistency reliability [24]. Hair et. al (2006)

suggest for accepted value of composite reliability between 0.60 until 0.95 [23]. The value of cronbach's alpha also accepted because all values are greater than 0.7 [22], [23] as shown in Table 2.

TABLE II
VALUE OF OUTER LOADING, AVE, CR AND CRONBACH'S ALPHA

| Variables | Indicators | Factor Loading | Average Variance Extracted (AVE) | Composite Reliability | Cronbach's Alpha |
|---|---|---|---|---|---|
| Perceived Quality (PQ) | PQ1 | 0.762 | 0.592 | 0.853 | 0.768 |
| | PQ2 | 0.805 | | | |
| | PQ3 | 0.814 | | | |
| | PQ4 | 0.69 | | | |
| Product Diagnosticity (PD) | PD1 | 0.879 | 0.736 | 0.893 | 0.821 |
| | PD2 | 0.86 | | | |
| | PD3 | 0.834 | | | |
| Product Trust (PT) | PT1 | 0.811 | 0.666 | 0.889 | 0.833 |
| | PT2 | 0.799 | | | |
| | PT3 | 0.836 | | | |
| | PT4 | 0.818 | | | |
| Purchase Intention (PI) | PI1 | 0.84 | 0.744 | 0.897 | 0.828 |
| | PI2 | 0.873 | | | |
| | PI3 | 0.874 | | | |

In this study, we used significant level 0.01 with two-tails for hypothesis testing. Based result of data analysis which is presented in Figure 4 and Table 3, product trust (PT) has the biggest influence to purchase intention (PI) with t-value 19. 18.935. In other hand, variable of perceived quality also has influence to purchase intention (PI), however it is only showed with t-value 3.197. Moreover, the product diagnosticity (PD) supported perceived quality (PQ) and product trust (PT) with t-value 13.992 and 10.702. The variable of product trust (PT) is also supported perceived quality (PQ) with t-value 12.325.

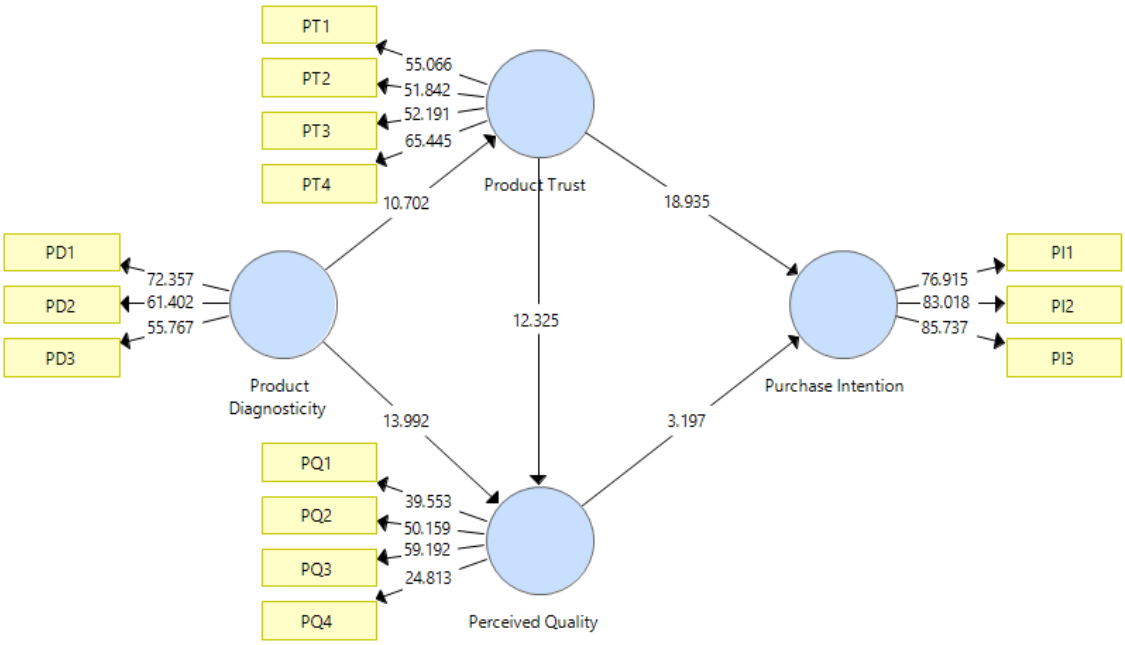


Fig. 4 Research model with T-statistics value

TABLE III

HYPOTHESIS TESTING

| Variables | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values | Result |
|---|---|---|---|---|---|---|
| Perceived Quality -> Purchase Intention | 0.096 | 0.098 | 0.03 | 3.197* | 0.001 | Supported |
| Product Diagnosticity -> Perceived Quality | 0.45 | 0.449 | 0.032 | 13.992* | 0 | Supported |
| Product Diagnosticity -> Product Trust | 0.401 | 0.4 | 0.038 | 10.702* | 0 | Supported |
| Product Trust -> Perceived Quality | 0.348 | 0.348 | 0.03 | 12.325* | 0 | Supported |
| Product Trust -> Purchase Intention | 0.562 | 0.562 | 0.03 | 18.935* | 0 | Supported |

*Significance at the 1% level (t-table = 2,379) for two –tails testing

## V. CONCLUSION

In this study, based on research result can be conclude:

1. A total of 1025 questionnaires were used in this research work which is distributed through GoogleForm from 28 December 2017 until 28 January 2018.
2. To validate structural model, we used a partial least squares (PLS) regression by using bootstrap resampling procedure. Then, to validate convergent validity, we deleted any questionnaire items whose loading factors were not significant at 0.7. Moreover, to ensure reliability of model, we validated based on composite reliability (CR), Cronbach's alpha (CA) and average extracted variance (AVE). The score of composite reliability (CR), Cronbach's alpha (CA) and average extracted variance (AVE) alpha must be greater than 0.7.
3. Product trust (PT) has the biggest influence to purchase intention (PI) with t-value 19. 18.935. In other hand, variable of perceived quality also has influence to purchase intention (PI), however it is only showed with t-value 3.197. Moreover, the product diagnosticity (PD) supported perceived quality (PQ) and product trust (PT) with t-value 13.992 and 10.702. The variable of product trust (PT) is also supported perceived quality (PQ) with t-value 12.325.

## VI. AKNOWLEDGEMENT

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