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The Influencing factors of Female Passenger Background in Online Transportation with Perceived Ease of Use

Meyliana[1], Surjandy[2], Erick Fernando[3], and Firman Anindra[4]

[1,2,3]Information Systems Department, School of Information Systems, Bina Nusantara University
Jln. K.H. Syahdan No. 9, Jakarta Barat 11480, Indonesia
[4]Departemen Teknik Informatika, Universitas Nasional
Jln. Sawo Manila, Jakarta Selatan 12520, Indonesia
[1]Meyliana@binus.edu; [2]surjandy@binus.ac.id; [3]Erick.Fernando001@binus.ac.id;
[4]firmananindra@civitas.unas.ac.id

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Abstract **-** This research aimed to explore the correlation or influence factors between the background of female passengers with perceived ease of use factors in Online Transportation Application (OTA). This research was an explanatory and descriptive (causal) research. The respondents were the female users of OTA with the total of 408 people. SPSS applications were used to process the data. Then, the cross-tabulation was to find the correlation or influence factors. In the end, the researchers find 19 factors that are essential for future research.

Keywords: female passenger, online transportation, perceived ease of use

I. INTRODUCTION

According to Asosiasi Penyelenggara Jasa Internet Indonesia (APJII - Indonesian Internet Service Providers Association), there are 61 million Internet users in Indonesia. Then, 47,6% of users use a smartphone (Septiani, Handayani, & Azzahro, 2017; Surjandy, 2017). It causes the rapid development of Online Transportation Application (OTA). Moreover, it brings benefit to Indonesia (Wahyuningtyas, 2016). For example, it is in transportation system (Silalahi, Handayani, & Munajat, 2017), or for food order, packet delivery, and many more (Amajida, 2016), and reducing the traffic (Wang & Kimble, 2016). The previous researchers also found that loyal customer (using online transportation for a long time) influenced the sharing economy (Yang, Song, Chen, & Xia, 2017).

Haryanto (2017) stated that 69% of OTA users were a single female. Meanwhile, male users were only 31%. The similar result was also reported by (Surjandy et al., 2018b; Zhang & Wang, 2016). That female users were higher than male. However, OTA also has a negative impact or risk for passenger and driver (Gao & Chen, 2019; Sarriera *et al.*, 2017; Surjandy *et al.*, 2018a). For example, the driver refuses passengers' orders due to skin color or being diffable (Zhang & Wang, 2016).

Recently, there is a phenomenon that sexual harassment happens to female passengers by drivers. It happens to start from a text message sent because the drivers can see the passengers' contact information (Standing, Standing, & Biermann, 2019) to physical sexually harassment (Nailufar, 2017; Salman, 2018). This case is not only happened in Indonesia but also in another country (Griffith, Van Esch, & Trittenbach, 2018; Surjandy *et al.*, 2018b). The police in Indonesia are uncertain about the psychology of the drivers. They suggest the Online Transportation Company (OTC) perform a psychological test before the new driver recruitment process (Purnama, 2018).

Based on the phenomena mentioned, this research will explore the influencing or correlation factors of the background of female online transportation passenger and perceived ease of use. There are several hypotheses for this research. First, the age of the female passenger has a relationship with perceived ease of use. Second, the female passenger's smartphone screen width has a relationship with perceived ease of use. Last, the long period of using online transportation by female passengers has an influence on perceived ease of use.

II. METHODS

The research is conducted using descriptive and explanatory research method. According to Neuman (2014), the descriptive and explanatory research explore the cause and reason for the phenomena. Descriptive research is usually known as casual research that is used for marketing to understand customer behavior. The application used to

process the data is SPSS and cross-tabulation to explain the relationship between factors (Landau & Everitt, 2004). Those can be described using Pearson's correlation indicator (sign) and value (r). Then, SPSS is also for data validity and reliability test. The total sample or respondent is calculated based on total Gojek applications downloaded, which is 50 million times. Moreover, it is also based on the sample size calculator that the minimum respondent required is 385 respondents with 95% confidence level and alpha 5%. The respondents used are 408 respondents. Table 1 shows the profile of the respondents.

Table 1 Respondent Profile

No	Description	Frequency	%
1.	Age (D1)		
	<17 Years Old	4	0,98
	17 – 25 Years Old	376	92,16
	>25 Years Old	28	6,86
2.	Screen Width (D2)		
	<3"	4	0,98
	3" – 4."	18	4,41
	4" – 5."	144	35,30
	5" – 6."	206	50,49
	>6"	36	8,82
3.	Period of Using Online Transportation (D3)		
	<3 months	8	1,96
	3 months – 1 Year	20	4,90
	> 1 year	380	93,14
Total		408	100

The SPSS application is to test the validity by comparing the Corrected Item-Total Correlation (CI-TC) score with Pearson's. If the CI-TC value is higher than Pearson's r-value, it is valid and vice versa. Table 2 shows the result of the validity test. Pearson's r value for 408 respondents is 0,098. Then, the reliability test is performed using SPSS. The Cronbach's Alpha score is 0,953. It means that the data is reliable for the future process.

Table 2 Validity Test

No	Description	CI-TC	Result
1.	D3	0,229	valid
2.	PEU1	0,827	valid
3.	PEU2	0,850	valid
4.	PEU3	0,879	valid
5.	PEU4	0,902	valid
6.	PEU5	0,867	valid
7.	PEU6	0,917	valid
8.	PEU7	0,939	valid
9.	PEU8	0,889	valid
Pearson's r is 0,098			

Notes:
PEU1 is easy to download OTA.
PEU2 is easy to use OTA (do not require guidelines).
PEU3 is easy to appear OTA.
PEU4 is easy and quick to solve the error occurred at OTA.
PEU5 is easy to interact with OTA.
PEU6 is easy to perform the transaction at OTA.
PEU7 is easy and comfortable to understand feature at OTA.
PEU8 is easy and comfortable to understand the available services in OTA.

III. RESULTS AND DISCUSSIONS

The cross-tabulation process will show the correlation significance between factors. If the Asymp Sig. value is greater than 0,05, it means it is not significant, or it has no correlation. If the Asymp Sig. value lower is than 0,05, it is significant, and there is a correlation between factors. The results between the factors can be seen in Table 3.

Table 3 Cross Tabulation Correlation Result

No	Correlation	Pearson's r, Asymp Sig.	H0	H1
1.	D1 * PEU1	-0,053, 0,085	Accepted	Rejected
2.	**D1 * PEU2**	**0,021, 0,000**	**Rejected**	**Accepted**
3.	D1 * PEU3	-0,047, 0,311	Accepted	Rejected
4.	D1 * PEU4	-0,011, 0,061	Accepted	Rejected
5.	D1 * PEU5	0,004, 0,389	Accepted	Rejected
6.	**D1 * PEU6**	**-0,045, 0,001**	**Rejected**	**Accepted**
7.	**D1 * PEU7**	**-0,050, 0,042**	**Rejected**	**Accepted**
8.	D1 * PEU8	-0,091, 0,132	Accepted	Rejected
9.	**D2 * PEU1**	**0,005, 0,001**	**Rejected**	**Accepted**
10.	**D2 * PEU2**	**-0,018, 0,000**	**Rejected**	**Accepted**
11.	**D2 * PEU3**	**-0,051, 0,008**	**Rejected**	**Accepted**
12.	**D2 * PEU4**	**-0,038, 0,020**	**Rejected**	**Accepted**
13.	**D2 * PEU5**	**0,030, 0,001**	**Rejected**	**Accepted**
14.	**D2 * PEU6**	**0,006, 0,002**	**Rejected**	**Accepted**
15.	**D2 * PEU7**	**-0,017, 0,003**	**Rejected**	**Accepted**
16.	**D2 * PEU8**	**-0,011, 0,000**	**Rejected**	**Accepted**
17.	**D3 * PEU1**	**0,176, 0,001**	**Rejected**	**Accepted**
18.	**D3 * PEU2**	**0,196, 0,038**	**Rejected**	**Accepted**
19.	**D3 * PEU3**	**0,208, 0,043**	**Rejected**	**Accepted**
20.	**D3 * PEU4**	**0,218, 0,047**	**Rejected**	**Accepted**
21.	**D3 * PEU5**	**0,191, 0,036**	**Rejected**	**Accepted**
22.	**D3 * PEU6**	**0,240, 0,000**	**Rejected**	**Accepted**
23.	**D3 * PEU7**	**0,222, 0,000**	**Rejected**	**Accepted**
24.	**D3 * PEU8**	**0,219, 0,000**	**Rejected**	**Accepted**

H0 means there is no correlation between factors
H1 means there is a correlation between factors
Bold font means there is correlation found

Based on Table 3, there is no correlation between age (D1) and easy to download OTA (PEU1). Pearson's sign value is 0,085 or greater than 0,05. It implies that the relationship is not significant. Downloading OTA can be done at any age level and has no difficulty to do it. However, there is a correlation between age (D1) and easy to use OTA without guidelines (PEU2). The Pearson's sign value is 0,021 and 0,000 or less than 0,05. It implies a significant relationship. The younger passengers tend to have more difficulty to use OTA without guidelines. Meanwhile, older passengers have no problem to use OTA without instruction. Next, there is no correlation between age (D1) and easy to appear OTA (PEU3). Pearson's sign value is 0,061 or greater than 0,05. It suggests the relationship is not significant, or there is no relationship between factors found. Similarly, there is also no correlation between age (D1) with easy and quick to solve the error occurred at OTA factor (PEU4). The Pearson's sign is 0,061 or greater than 0,05.

Next, age (D1) does not correlate with easy to interact with OTA (PEU5). Pearson's sign value is 0,389 or higher than 0,05. Meanwhile, there is a negative correlation or inverse correlation between age (D1) and easy to perform the transaction at OTA (PEU6). The Pearson's value is -0,045 and sign is 0,001. Those values are lower than 0,05. It means the younger passengers tend to feel harder or difficult to perform the transaction. However, older passengers feel comfortable to perform the transaction. A similar result also happens between age (D1) and ease and comfortable to understand the feature at OTA (PEU7). The Pearson's value is -0,050 and 0,042 or lower than 0,05. It suggests that younger passenger feel hard and discomfort to understand the feature at OTA. Meanwhile, older passenger tends to feel easy and comfortable to understand to feature at OTA. Moreover, there is also no correlation between age (D1) and ease and comfort to understand the available services in OTA (PEU8). Pearson's sign value is 0,132 or greater than 0,05.

There is a correlation between screen width (D2) and easy to download OTA (PEU1). Pearson's sign value is 0,005. It is lower than 0,05. It means the users with bigger screen width tend to feel more comfortable to download OTA. Meanwhile, users of the smaller screen width feel harder to download OTA. Next, there is a negative correlation or inverse correlation between screen width (D2) and easy to use OTA without guidelines (PEU2). Pearson's sign value is -0,018, and the sign is 0,000 or less than 0,05. It means the users with bigger screen width tend to feel more difficult to use OTA, and the smaller screen width users feel comfortable to use OTA. A similar result is between screen width (D2) and easy to appear OTA (PEU3). The Pearson's value is -0,051 with sign value 0,008. It is lower than 0,05. It means OTA is harder to look with the bigger screen, and OTA is more in the smaller screen.

Next, there is also a negative correlation or inverse correlation between screen width (D2) and easy and quick to solve the error occurred at OTA (PEU4). The Pearson's value is -0,038, and sign value is 0,020 or lower than 0,05. It means the bigger screen is hard and slow to solve the error occurred at OTA. On the contrary, the smaller screen width is easy and quick to solve error occurred. However, there is a correlation between screen width (D2) and easy to interact with OTA (PEU5). The Pearson's value is 0,030 with sign 0,001. It is lower than 0,05.

Then, there is a correlation between screen width (D2) with easy to perform the transaction at OTA (PEU6). The Pearson value is 0,006, and the sign is 0,002. Those values are lower than 0,05. It means the users with bigger screen width tend to feel more comfortable to perform the transaction, and it is uncomfortable to execute the transaction in a small screen. Meanwhile, there is a negative correlation or inverse correlation between screen width (D2) with easy and comfortable to understand feature at OTA (PEU7). The Pearson value is -0,017, and the sign is 0,003. It means the users with bigger screen tend to feel hard and uncomfortable to understand the feature at OTA. However, users with the smaller screen width tend to feel easy and comfortable to understand the feature at OTA. The result is also the same for PEU8 between screen width (D2) with easy and comfortable to understand available services in OTA. The Pearson value is -0,011 with the sign of 0,000. It suggests that users with the bigger screen width feel hard and uncomfortable to understand available services in OTA.

Next, for period of using online transportation (D3), it correlates with easy to download OTA (PEU1). The Pearson value is 0,176, with the sign of 0,031. It implies that the longer time to use online transportation, the more comfortable users download OTA. Meanwhile, the users with a shorter time to use online transportation tend to feel uncomfortable to download OTA. It has a similar result with easy to use OTA without guidelines (PEU2) factor. The Pearson value is 0,196, and the sign is 0,038. It means the longer time to use online transportation is, the more comfortable users use OTA. For easy to appear OTA (PEU3) factor, period of using online transportation (D3) correlates with it. The Pearson value is 0,208 with the sign of 0,043. The longer time users use online transportation, they feel more comfortable when OTA appears.

Next, there is a correlation between period of using online transportation (D3) with easy and quick to solve the error occurred at OTA (PEU4). The Pearson value is 0,218 with sign value of 0,047. It means the users with longer time in using online transportation tend to feel quick to solve the error occurred at OTA. The result is the same with easy to interact with OTA (PEU5). The Pearson value is 0,191 with a sign of 0,036. Users with a longer time in using online transportation feel more comfortable to interact with OTA. Meanwhile, the shorter time of using online transportation means users are uncomfortable to interact with OTA.

Next in the ease to perform the transaction at OTA (PEU6), the Pearson value is 0,240 with a sign of 0,000. Those two factors correlate. The longer time users use online transportation, they tend to feel more comfortable to perform the transaction. Meanwhile, the users with a shorter time in using online transportation tend to feel uncomfortable to execute the transaction. Then, there is a correlation between period of using online transportation (D3) with easy and comfortable to understand feature at OTA (PEU7). The Pearson value is 0,222 with the sign of 0,000. If the users use online transportation longer, they feel more comfortable to understand the feature at OTA. There is a correlation between period of using online transportation (D3) with easy and comfortable to understand the available services in OTA (PEU8). The Pearson value is 0,219 with the sign of 0,000. It means the longer time to use online transportation is, the easier and more comfortable the users understand the available services in OTA.

According to Kent State University Libraries (2019), the absolute Pearson's r value or |r| can be used to explain the strength of correlation between factors. The $0,1 < |r|$ (absolute (r))$< 0,3$ indicates small tension of the correlation. Then, the $0,3 < |r|$ (absolute (r))$< 0,5$ indicates the medium tension of the correlation. Meanwhile, |r| (absolute (r)) $> 0,5$

indicates strong tension of the correlation. The square of |r| (absolute (r)) will indicate the percentage value between the factors. Table 4 shows the result.

Table 4 Strength of Correlation

No	Description	|r|	$\|r\|^2$	%	Tension
1	D3 * PEU1	0,176	0,031	3,1	Small
2	D3 * PEU2	0,196	0,038	3,8	Small
3	D3 * PEU3	0,208	0,043	4,3	Small
4	D3 * PEU4	0,218	0,047	4,7	Small
5	D3 * PEU5	0,191	0,036	3,6	Small
6	D3 * PEU6	0,240	0,058	5,8	Small
7	D3 * PEU7	0,222	0,049	4,9	Small
8	D3 * PEU8	0,219	0,048	4,8	Small

Note:

$|r| < 0,1$ is excluded

The value of absolute (Pearson's r) or $|r| < 0,1$ is excluded from the results. It is because the relationship between factors is too weak (almost has no relation). Moreover, there is no definition yet for this relation. The period of using OTA (D3) has a different effect on the other factors. First, it has 3,1% of influence to easy to download OTA activity (PEU1). Second, it has 3,8% of influence to the easy to use OTA factor (PEU2). Third, for the ease to appear OTA (PEU3), it has 4,3% of percent influence.

Fourth, it has 4,7% of influence to easy and quick to solve the error occurs at OTA (PEU4). Fifth, there are 3,6% of influence from the period of using OTA (D3) to easy to interact with OTA factor (PEU5). Sixth, it has 5,8% of influence to easy to perform the transaction factor (PEU6). Last, it has 4,9% and 4,8% of the influence on easy and comfort to understand the feature at OTA (PEU7) and available services in OTA factor (PEU8) respectively.

From the result, it implies that female passengers' background, such as screen width and period of using OTA influence perceived ease of use. The key component found in this study is the period of using transportation. For new passengers of online transportation, they will feel difficult or uncomfortable or negative behavior. However, after several times of using OTA, they get familiar with the application. Then, the response will be change to comfortable or positive behavior. The result is in line with the previous research that sharing economy has a relationship with the loyal passenger (Yang *et al*., 2017). Loyal passenger frequently uses OTA. However, the tension strength of the association is varying. There are eight small tensions found from the nineteen correlation. The rest or 11 tensions are very weak or can be said to have no significant correlation.

IV. CONCLUSIONS

The researchers find 19 correlations or influencing factors. Three factors were between the age of female passengers and perceived ease of use. Then, eight factors are between the screen width of the passenger smartphone with perceived ease of use. Eight factors are found between the period of using online transportation and perceived ease of use. This preliminary research study is essential for future research.

Future research is required to see other factors that may influence the online transportation systems. For example, there are the social influence, risk influence, perceived usefulness. In the end, the result of the study will be essential for the improvement of the online transportation industry.

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