Customer Satisfaction on Electronic Wallet Usage: Indonesia Experiences

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Abstract. This study aims to empirically examine the determinants of consumers' intention and satisfaction to use electronic wallet of Indonesian users. 119 respondents participated in the survey. 17 hypotheses were formulated and PLS-SEM was used to estimate and test the hypothesized model. The results show that factors like hedonic motivation, trust, and intention have a significant direct effect on the customers' satisfaction in using electronic wallet, while perceived ease of use and perceived usefulness have significant indirect effect through trust. The customers' intention to use electronic wallet only influences by hedonic motivation. Moreover, hedonic motivation has an important role in determining intention and satisfaction of Indonesian users to use electronic wallet. It implies that e-wallet is more used to fulfil hedonic consumption needs.

Keywords: Electronic wallet, Customer satisfaction, Intention

1 Introduction

Industrial Revolution 4.0. which begins with the development of information technology has an impact on changes in people's behaviour, one of which is the payment system. People who usually use cash-based payment began to switch to non-cash payments. This strongly supports the development of e-commerce because it is used as a payment tool, money transfer, and managing user loyalty [1].

The potential for the use of e-wallets is huge and attracts attention as an alternative payment method worldwide [2]. However, not all consumers are willing to accept the use of this technology [1], [3]. Among the causes are anxiety about new technology, lack of skills, lack of awareness, and complexity of new technology [4]. By ignoring the problems faced by individuals, various studies have confirmed that consumers prefer technology that provides fast, convenient and useful services on one platform [5]–[7].

In Indonesia, the people's preference to use electronic money is increasing. Based on transaction volume in 2018, the growth in the use of debit card, credit card, and e-money is 12.56%, 3.35%, and 209.83%, respectively. Then, based on transaction value in 2018, the growth is 11.72%, 5.55%, and 281.39%. From two aspects presented, the growth of debit and credit cards are in low level and is in contrast to electronic money [8]. This study aims to

empirically examine the determinants of consumers' intention and satisfaction to use electronic wallets of Indonesian users.

2　Method

The proposed model and hypothesis of this study (see figure 1) is the modification from previous research, i.e. Chawla & Joshi [9]; Singh [1]; and Oliveira [10]. Then, an online questionnaire using the google form was designed to answer the research questions. The questionnaire survey was conducted over five weeks, from July to August 2019. The questionnaire consists of various items for the constructs like perceived ease to use (PEOU), perceived usefulness (PU), trust (TR), lifestyle compatibility (LC), facilitating condition (FC), hedonic motivation (HM), intention (IN), and satisfaction (ST). The final sample of this study is 119 electronic wallets users. The data collected was analysed with partial least square (PLS) as it was suitable for small samples. The first step in the analysis was the evaluation of the measurement model and the second step was the evaluation of the structural model [11].
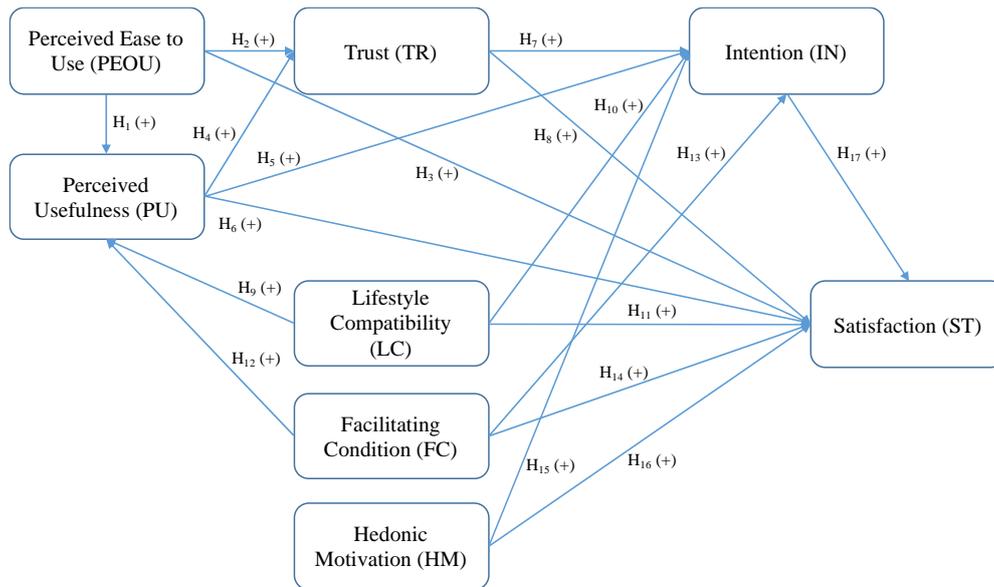

Fig. 1. Proposed model with hypotheses

3　Result and Discussion

3.1　The measurement model

The items in the various constructs were subjected to measurement model using SmartPLS 3.0. Table 1 shows that all constructs are consistent with the value of Cronbach's α exceed the minimum required value of 0.7 [12]. The measurement model was assessed by computing the

values of convergent and discriminant validity. For convergent validity was supported as the values of composite reliability (CR) was greater than 0.7 and the average variance extracted (AVE) was greater than 0.5. Discriminant validity was supported as the square roots of AVE were all greater than the correlation coefficients. Table 2 shows the second criterion for discriminant validity is cross-loadings, where the indicator loadings on its own construct is higher than the cross loading on any other construct. All correlation coefficients also were greater than the threshold value of 0.708.

Table 1. Convergent and discriminant validity

Constructs	α	CR	AVE	FC	HM	IN	LC	PEOU	PU	ST	TR
FC	0.852	0.900	0.694	**0.833**							
HM	0.830	0.898	0.749	0.489	**0.865**						
IN	0.871	0.912	0.721	0.537	0.706	**0.849**					
LC	0.889	0.923	0.750	0.715	0.636	0.606	**0.866**				
PEOU	0.895	0.935	0.827	0.647	0.410	0.545	0.581	**0.909**			
PU	0.935	0.954	0.840	0.743	0.510	0.544	0.724	0.691	**0.916**		
ST	0.919	0.949	0.861	0.695	0.751	0.751	0.674	0.466	0.577	**0.928**	
TR	0.912	0.932	0.697	0.668	0.507	0.567	0.724	0.662	0.718	0.662	**0.835**

Table 2. Measurement model cross loadings

	FC	HM	IN	LC	PEOU	PU	ST	TR
FC1	0.830	0.464	0.521	0.639	0.691	0.642	0.445	0.554
FC2	0.755	0.353	0.458	0.503	0.415	0.502	0.496	0.452
FC3	0.874	0.391	0.409	0.608	0.580	0.691	0.517	0.618
FC4	0.868	0.417	0.405	0.625	0.455	0.629	0.528	0.593
HM1	0.469	0.932	0.674	0.579	0.355	0.491	0.781	0.511
HM2	0.463	0.934	0.659	0.601	0.368	0.500	0.709	0.432
HM3	0.315	0.711	0.477	0.462	0.359	0.299	0.386	0.363
IN1	0.442	0.565	0.796	0.483	0.455	0.434	0.521	0.388
IN2	0.454	0.661	0.899	0.530	0.465	0.446	0.634	0.442
IN3	0.338	0.557	0.832	0.414	0.395	0.377	0.580	0.487
IN4	0.567	0.612	0.867	0.610	0.523	0.568	0.779	0.587
LC1	0.590	0.563	0.534	0.888	0.486	0.600	0.551	0.632
LC2	0.734	0.593	0.576	0.879	0.579	0.738	0.600	0.657
LC3	0.523	0.463	0.491	0.822	0.445	0.542	0.518	0.547
LC4	0.610	0.571	0.493	0.872	0.491	0.610	0.658	0.664
PEOU1	0.584	0.400	0.566	0.537	0.922	0.602	0.447	0.638
PEOU2	0.603	0.357	0.437	0.528	0.921	0.681	0.387	0.576
PEOU3	0.577	0.360	0.481	0.521	0.883	0.603	0.441	0.593
PU1	0.690	0.504	0.517	0.637	0.672	0.935	0.531	0.671
PU2	0.733	0.513	0.557	0.720	0.684	0.946	0.552	0.681
PU3	0.718	0.459	0.491	0.678	0.672	0.956	0.538	0.676
PU4	0.570	0.385	0.421	0.616	0.488	0.821	0.494	0.599
ST1	0.564	0.734	0.669	0.641	0.426	0.554	0.910	0.596
ST2	0.546	0.669	0.714	0.586	0.438	0.505	0.937	0.606
ST3	0.547	0.688	0.707	0.649	0.435	0.548	0.936	0.640
TR1	0.660	0.426	0.461	0.643	0.718	0.732	0.521	0.788
TR2	0.318	0.321	0.358	0.444	0.259	0.338	0.432	0.733
TR3	0.529	0.495	0.469	0.640	0.562	0.600	0.570	0.866
TR4	0.584	0.457	0.490	0.655	0.579	0.651	0.570	0.919
TR5	0.573	0.369	0.500	0.595	0.470	0.596	0.630	0.856
TR6	0.603	0.449	0.532	0.608	0.630	0.596	0.565	0.832

3.2 The structural model
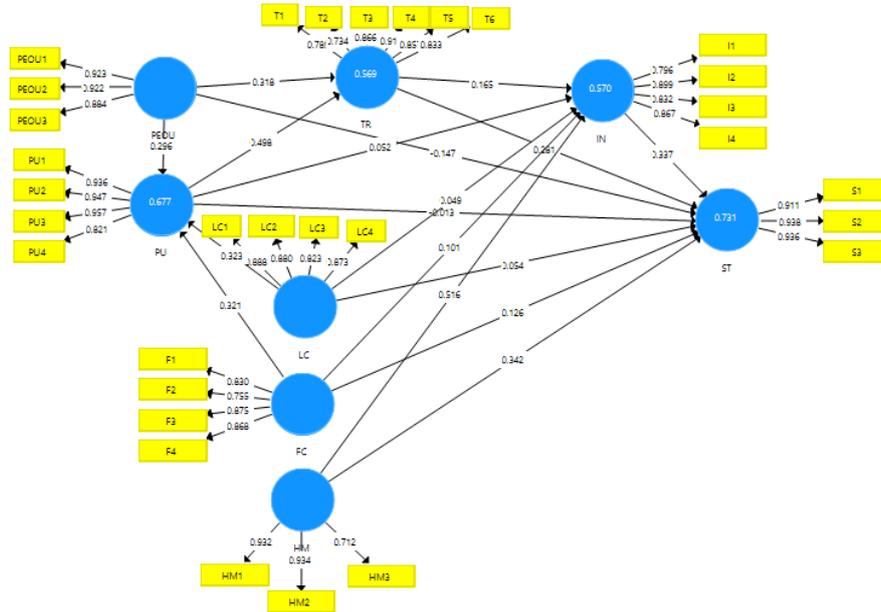
Fig. 2. Path coefficients and their significance

Table 3. Summary of structural model results

Hypotheses	Relationship	Original sample (O)	Sample mean (M)	SD	t-statistics (|O/STDEV|)	p-values	Supported
H_1	PEOU --> PU	0.296	0.320	0.133	2.217	0.027**	Yes
H_2	PEOU --> TR	0.318	0.344	0.172	1.84	0.066***	Yes
H_3	PEOU --> ST	-0.146	-0.12	0.102	1.427	0.154	No
H_4	PU --> TR	0.498	0.462	0.176	2.825	0.004*	Yes
H_5	PU --> IN	0.051	0.051	0.118	0.435	0.663	No
H_6	PU --> ST	-0.013	-0.002	0.109	0.121	0.903	No
H_7	TR --> IN	0.164	0.181	0.162	1.016	0.310	No
H_8	TR --> ST	0.281	0.280	0.116	2.411	0.016**	Yes
H_9	LC --> PU	0.322	0.287	0.129	2.498	0.012**	Yes
H_{10}	LC--> IN	0.049	0.063	0.145	0.339	0.734	No
H_{11}	LC--> ST	0.054	0.064	0.105	0.514	0.607	No
H_{12}	FC --> PU	0.32	0.325	0.109	2.917	0.003*	Yes
H_{13}	FC --> IN	0.101	0.103	0.114	0.883	0.377	No
H_{14}	FC --> ST	0.125	0.113	0.094	1.333	0.183	No
H_{15}	HM --> IN	0.515	0.474	0.127	4.056	0.000*	Yes
H_{16}	HM --> ST	0.342	0.350	0.107	3.192	0.001*	Yes
H_{17}	IN --> ST	0.336	0.309	0.118	2.851	0.004*	Yes

Note. ∗significant at 0.01 level; ∗∗significant at 0.05 level; ∗∗∗significant at 0.10 level

The path coefficients and their significance are presented in Figure 2 and Table 3. It is seen that out of the 17 hypotheses proposed, 9 are supported. Perceived ease to use, lifestyle compatibility, and facilitating condition have positive and significant impact on perceived usefulness (PU) thereby supporting H_1, H_9, and H_{12}. It is natural to believe that making a system easy to use should enhance its usefulness. Facilitating condition in the term of e-wallet

availability and affordability on smartphones also increase its usefulness. E-wallet usefulness will be increase if the customers' lifestyle on fashion consciousness and leisure orientation can meet the expectation. This result is consistent with prior research as it shows a positive relationship between variables and perceived usefulness of e-wallet [3], [9], [13]–[15].

Basic constructs of technology acceptance model, such as perceived ease to use and perceived usefulness have positive and significant impact on trust (TR) thereby supporting H_2 and H_4. PEOU and PU refers to the users' perception of the e-wallet performance, such as the ease in learning and understanding about the product, the facility and other benefits. So, it can enhance the customers' trust [9], [16]. Hedonic motivation has positive and significant impact on intention (IN) thereby supporting H15. However, PU, TR, LC, and FC have positive impact but insignificant. Hedonic motivation refers to the experience, challenge and enjoyment to use e-wallet for fulfil the needs and it can enhance the costumers' intention. It is in line with Baptista & Oliveira works [17].

The users' satisfaction of e-wallet has influenced significantly by trust, hedonic motivation, and intention to use. Hence, H_8, H_{16}, and H_{17} was supported. User confidence in e-wallet providers related to the security of data, money, etc. and hedonic value of the product can increase users' satisfaction [18], [19]. The greater intention to use would increase e-wallet users' satisfaction and it is supporting the finding from Singh et.al. [2] and Oliveira et.al. [10]. This is important because satisfaction is a key factor to assess service quality and improve competitive advantage of a technology. However, PEOU, PU, LC, and FC have insignificant direct impact, but PEOU and PU have indirect impact on satisfaction through trust.

4 Conclusion

This study was to evaluate users' intention and satisfaction of e-wallet. The result of the study found that hedonic motivation has the most important role in determining the intention and satisfaction to use e-wallet. The e-wallet users' satisfaction is influenced by trust, hedonic motivation, and intention, directly, whereas the perceived ease of use and perceived usefulness have significant indirect effect through trust on satisfaction. The users' intention to use e-wallet only influences by hedonic motivation, while other variables have no significant effect. Furthermore, perceived usefulness of Indonesian users on e-wallet support by perceived ease to use, lifestyle compatibility, and facilitating condition.

Acknowledgement

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