
Developing the Reputation of Distribution Network to Increase the Buying Interest of Electronic Payment: An Empirical Study

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Abstract:

The purpose of this study is to analyse the user's perspective associated with the reputation, distribution networks, product image, perception of transaction convenience and trust on e-Toll card purchasing interest.

The study population was the highway users in Indonesia. The sample size was 245 respondents. The results showed that purchasing interest on e-Toll card is mostly influenced by the reputation of the distributor network through perceptions of convenience and trust transactions.

The study is recommended for operators to improve their services to e-Toll card users and the product image which ultimately can improve the purchasing interest on e-Toll cards.

Keywords: *E-Toll card, reputation, distribution networks, product image, transaction convenience, trust.*

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1. Introduction

Highways have been considered as a congestion solution in all major cities in Indonesia (Block, 1980). Indonesia is currently focused on the development of infrastructure, including highway connecting roads throughout the island of Java and Sumatra (Straub *et al.*, 2008). The development of transportation facilities is expected to increase the economic growth in Indonesia. Highway benefits felt by all users of transport (Mabaso, 2016). However, there is still a congestion phenomenon on some highways in Indonesia, especially at the entrance and exit of highways, mainly caused by the traditional system of payment, that needs a long queue at the time of payment.

Now, Indonesian government has made a policy to implement non cash payments in highways using e-Toll card throughout the country that is expected to be a solution to resolve the payment queue. The quality of service, along with perception, image and trust towards e-Toll highway services has attracted attention to be further studied, especially on its effect on the purchasing interest. Especially in the context of highway development and ICT and pricing, some studies have shown their relationship (Naidoo, 2013; Rouhani, 2016; Matsiliza, 2016; Premier and Makhura, 2014; Akopova *et al.*, 2017; Novokreshchenova *et al.*, 2017).

E-Toll card users are increasing a good indication of customer satisfaction in using the e-Toll card. Consumer satisfaction can be caused by the e-Toll card vendor in collaboration with several supermarkets and shopping centers to expand and facilitate the sales distribution of top up facility of E-Toll card, so as to provide comfortability to the users. The distribution network, built on cooperation between vendors ie., some banks and distributors of shopping centers is believed to encourage and foster the perception of a good image and a sense of trust so that customers are attracted to use e-Toll card. The purpose of this study is to analyse the user perspective associated with the reputation, distribution networks, product image, perception of transaction convenience and trust on e-Toll card purchasing interest.

2. Literature Review and Hypothesis Development

2.1 Reputation on Trust and Product Image

Optimization of the distribution network of e-Toll card can obtain remarkable results if the vendor and distributor can work together and each has advantages capable of mutual benefit. Thus, the distribution network in the business will be able to improve the channels of distribution of goods so that the results of the alliance will be more efficient and more productive (Anderson and Narus, 1990; Wahyuni and Ginting, 2017). Marketing success is a part of the business targets, that can be made by using connections to obtain the effectiveness of distribution networks, and the mutually acceptable conditions is very important in the distribution network so as

to improve customer satisfaction (Bucklin and Sengupta, 1993; Andriyansah *et al.*, 2017). Reputation is the image attached to the companies that gave a strong impression on the name, as well as the identity which is the accumulation of value given by consumers. Herbig *et al.* (1994) stated that the reputation usually reflects the competence and excellence of a product or a specific company compared to its competitors and is linked to the experience of the customer, including information and consumer communication about product as well as the media coverage on the product or the company.

The distribution network is described as an organization to expand the business by observing, identifying, responding to opportunities for cooperation in partnership so that the product can be better distributed (Sarkar *et al.*, 2001; Wahyuni and Ginting, 2017). Capacity of the distribution network is obtained by optimizing the function of the cooperation between the vendor and the distributor, that then is proactively learned from experience by doing to enhance cooperative function (Kale *et al.*, 2002). In connection with the distribution of e-Toll card, a good reputation can be accomplished with providing service availability and the ease of top up of e-Toll card. A good service will facilitate the buyers and users so that will give satisfaction to customers (Kim and Ahn, 2007; Rusanov *et al.*, 2015). The distribution network affects the value creation according to the results of studies showing evidence that positively affects the distribution network of value creation (Swaminathan and Moorman, 2009). Therefore we can set the hypotheses as follows:

H1: The better the reputation of distribution network, the higher the consumer perception of transaction convenience.

H2: The better the reputation of distribution network, the higher the consumer trust.

H3: The better the reputation of distribution network, the higher the product image.

2.2 Perception of Transaction Convenience on Purchasing Interest and Trust

Satisfaction is one of the drivers of repurchase intention and interest and also recommend it to others (Reichheld, 1996). Consumer perception, on the other hand, is described as a consumer action and reaction (Kotler *et al.*, 1998). Satisfaction is an indicator that consumers feel that their expectations of a product have met or that the benefits of the product exceeded expectations (Grisaffe, 2001). Hence, consumer product information will form a perception and influence the opinion of the product as well as an interest to buy.

The perception of the value of a product greatly contribute to make buying decisions and influence the decisions and the evaluation of such products (Creusen, 2010). Awareness information about e-Toll card is a factor that is extremely valuable in assessing a product (Zimmer *et al.*, 2010; Nugroho *et al.*, 2017), particularly for consumers who are used to evaluate the product or service with a search for comparative information to assess whether a product will meet the specific criteria that are expected to conform consumer perception.

The perception of a product also satisfies conformity with what can often be seen and heard (Budiharseno, 2017; Liligeto *et al.*, 2014). Therefore we can set the hypotheses as follows:

H4: The higher the perception of the transaction convenience, the stronger buying interest.

H5: The higher the perception of transaction convenience, the stronger the trust.

2.3 Consumer Trust

Ganesan (1994) describes trust as consumer wish to a product, service or brand that is based on the belief of the benefits. In the context of e-Toll card, it includes trust, related ads with e-Toll card, ease of transaction cards, more simple payment, as well as to the suitability of the information and reliability.

In distribution networks the trust factor is seen as one of the most relevant antecedents associated with collaborative relationships. Some studies suggest that trust is very important to build and maintain long-term relationships (Rousseau, *et al.*, 1998; Singh and Sirdeshmukh, 2000). Continuous process of working together will make a positive contribution as a continuous process and will maintain the values that are important in the distribution network (Chaudhuri and Holbrook, 2001).

In the context of e-Toll card, customer trust is linked with certain characteristics of the product e-Toll card, as well as the trust to get something that is expected of such products (Coulter and Coulter 2002). Trust is also related to about a product's reliability and integrity (Sirdeshmukh *et al.*, 2002). Trust encourages the purchase of products and affects customer attitudes towards future purchases (Lee and Lin, 2005). Therefore we can set the hypotheses as follows:

H6: The higher the trust, the stronger the interest to buy.

2.4 Product Image

Customer image greatly affects the view of the quality of a product. Brand image perception is described as a product in the minds of consumers. In the context of e-Toll card, the image in using e-Toll card will increase the prestige in using e-Toll card, increase user trust to use E-Toll card that is considered simple and is able to cope with congestion (Dobni *et al.*, 1990). Keller (1993) defines brand image as the perception of a brand that is owned in consumer memory. Product image is described as a corporate image that is the customer's perception of how well companies understand and meet customer needs based on the benefits, physical attributes and branding. The role of corporate image is increasingly important because customer trust is always referred to good corporate image. Some studies have proposed some measurements of corporate image based on four dimensions,

including quality, performance (growing and well-managed), responsibility (caring and social responsibility) (Kurniawan, 2017) as well as attractiveness (vendor and qualified employee) (Andriyansah and Zahra, 2017). Consumers when buying a product from a company do not only buy products but also receive a set of values from the company. Company brand is the amount a value representing the company (Ind, 1997) and a positive corporate brand image not only helps the company to increase competition but also encourages consumers to repurchase (Porter and Claycomb, 1997). Consumers prefer a higher image perceived in quality, value, and satisfaction loyalty (Johnson *et al.*, 2001). Therefore we can set the hypotheses as follows:

H7: The better the e-Toll card image, the stronger the buying interest.

H8: The better the e-Toll card image, the stronger the trust.

3. Methodology

This study uses quantitative data sourced from questionnaires distributed directly to respondents who have certain criteria. This research is categorized as causality research that will look for explanation of causality between variables to test the research hypothesis that has been determined in the previous section. In this study, the method of nonprobability sampling using purposive sampling was selected as sampling method (Cooper and Emory, 1995). Based on some reviews over the sample 245 respondents were selected. Determination of the sample was by taking the user data of e-Toll card. Data analysis technique used is Structural Equation Modeling (SEM) using AMOS version 22. Andriyansah and Aryanto (2017) suggest that SEM testing allows researchers to test the validity and reliability of research instruments, confirm the accuracy of the model, as well as to test the influence of one variable on another variable. The purpose of path analysis is to determine which variable has the role of antecedent and consequent role as well as to determine the relationship between variables.

The variable of reputation of distribution network is operationally defined as reputation attached to the company that would strongly suggest that name as well as the identity. This variable was measured by Anderson and Robertson (1995), including 3 items, the reputation level of provider vendor of e-Toll card, the user trust level and the reliability. Product image is defined as a description of the product in the mind of the consumer associated with the E-Toll card service. This was adopted from Dobni *et al.* (1990), using 3 indicators including using e-Toll card improves prestige, increases the trust, and simple and able to overcome congestion.

The variable of trust is defined as the desire for a product, service or brand based on belief in the benefits of e-Toll card. This was adopted from Ganesan (1994), using 3 indicators including confidence in the truth of ease of transaction, promotion with e-Toll card, more simple than cash payment, conformity of information. Perception of transaction convenience is defined as perception about ease of transaction with e-

Toll card compared to cash transaction. This variable was sourced from Parasuraman *et al.* (1991), including E-Toll card is considered to speed up transaction time, require no queue and provides a special payment gate for easy transaction. The variable of buying interest is defined as a desire that shows how strong the business of consumers to get the benefits of a highway card. This is sourced from Dodds (1991), using 3 items including desire to transact using e-toll card, according to advertisement and to price offered.

4. Results and Discussion

A total of 65 people aged 45 years old, 71 people aged 38-44 years, 89 people aged 31-37 years and 20 aged 24-30 years. From the educational background, 6 holding Master's degree, 107 Bachelor's degree, 123 graduated from high school. Based on the background of the work, 74 are drivers, 21 are civil servants, 32 are employees, 45 people are entrepreneurs, 7 lecturers, 26 teachers, 38 students.

Table 1. *Characteristic of Respondents*

No	Characteristics	Frequency	Percentage
1	Sex:		
	Male	209	85.3%
	female	36	14.7%
2	Age:		
	> = 45	65	26.5%
	38-44	71	29%
	31-37	89	36.3%
	24-30	20	8.2%
3	Educational Background:		
	Doctoral degree	0	0%
	Master degree	6	2.5%
	Bachelor degree	107	43.6%
	Graduate from high school	123	50.2%
	Elementary School	9	3.7%
4	Occupation:		
	Drivers	74	30.2%
	Civil servant	21	8.6%
	Employee	32	13.1%
	Entrepreneur	45	18.3%
	Lecturer	7	2.9%
	Teacher	26	10.6%
	University student	38	15.5%
	Unemployed	2	0.8%

The value of normality indicates that the value obtained is below the required criteria, namely $1.632 < 2.58$, where there are no outliers and multicollinearity.

Table 2. *Assessment of Normality*

Variable	Min	Max	Skew	C.R	Kurtosis	CR
PI10	4.000	9.000	-. 302	-1.931	-. 340	-1.086
PI11	3.000	10.000	-. 180	-1.152	. 158	. 506
PI12	4.000	9.000	-. 230	-1.468	-. 257	-. 821
BI15	3.000	10.000	-. 277	-1.769	-. 245	-. 782
BI14	3.000	10.000	-. 277	-1.772	. 024	. 076
BI13	3.000	10.000	-. 257	-1.639	. 031	. 098
NR1	3.000	10.000	-. 304	-1.941	. 018	. 059
NR2	4.000	10.000	-. 065	-. 415	-. 604	-1.931
NR3	3.000	10.000	-. 235	-1.503	. 001	. 002
TR4	3.000	9.000	-. 378	-2.418	-. 520	-1.661
TR5	3.000	9.000	-. 212	-1.354	-. 227	-. 725
TR6	3.000	10.000	-. 151	-. 964	-. 183	-. 585
TC9	4.000	10.000	-. 271	-1.732	-. 542	-1.731
TC8	4.000	10.000	-. 349	-2.227	-. 469	-1.499
TC7	4.000	10.000	-. 231	-1.479	-. 460	-1.469
Multivariate					-4.708	-1.632

Results from testing of a goodness of fit show that the index for the criteria have the acceptable value. The testing show the value of Chi -Square 112.923, the probability of $0.013 < 0.05$, $RMSEA = 0.039 < 0.08$, $GFI = 0.947 > 0.90$, $AGFI = 0.922 > 0.90$, $TLI = 0.929 > 0.90$, $CFI = 0.944 > 0.90$. Thus, the model can be further analyzed.

Table 3. *Goodness of Fit*

Index	Result	Standard	Cut-off-Value	Confirmation
Chi -Square	112.923			Fit
Probability	0.013	<	0.05	Fit
RMSEA	0.039	<	0.08	Fit
GFI	0.947	>	0.90	Fit
AGFI	0.922	>	0.90	Fit
TLI	0.929	>	0.90	Fit
CFI	0.944	>	0.90	Fit

Hypothesis can be tested by looking at the value of t-statistic, and *p*-values. Conditions for accepting or rejecting the proposed hypothesis is $C.R \pm 1.96$.

Table 4. *Regression Weights*

Hypothesis	Estimate	SE	CR	P	Result
PI <--- NR	.557	.128	4.343	***	Accepted
TC <--- NR	.455	.123	3.694	***	Accepted
TR <--- NR	.434	.166	2.607	.009	Accepted
TR <--- PI	.024	.124	.194	.846	Rejected
TR <--- TC	.051	.087	.591	.555	Rejected

Hypothesis	Estimate	SE	CR	P	Result
BI <--- TC	.255	.092	2.771	.006	Accepted
BI <--- TR	.345	.142	2.429	.015	Accepted
BI <--- PI	.115	.107	1.071	.284	Rejected

Note: NR: network reputation, PI: product image, TC: transaction convenience TC: trust, BI: buying interest.

The testing results indicate that the network reputation positively affects perception of transaction convenience, trust and product image, indicated by the C.R values of 4.343, 3.694 and 2.607, respectively. This means that H1, H2 and H3 are accepted.

The further results show that the perception of convenience and product image transaction has no effect on trust with CR values 0.591 and 0.194, respectively. This means that H5 and H8 are rejected because of having no significance value at 0.05. The product image variable also has no effect on the buying interest, indicated with CR value is 0.293. This means that H7 is rejected. Moreover, the variables of transaction and trust perception have positive influences on buying interest with CR values of 2.607 and 2.461 far below the level 0.05. This means that H4 and H6 are accepted.

5. Conclusion

The testing results showed that the distribution network reputation has a positive effect on the perception of the transaction convenience, trust and product image. However, the perception of transaction convenience and product image have no effect on trust. The variable of product image also has no effect on buying interest, while the variables of perception of convenience and trust transaction show positive influences on buying interest.

This study contributes to the phenomenon of the use of e-Toll card in Indonesia. It should be a concern that buying interest is not yet fully influenced by the product image, although buying interest is significantly influenced by the perception of transaction trust and convenience. Managerial implications of this research is the behavior of highway users in Indonesia feel the e-Toll card must be able to provide tangible benefits. This means that the obligation to use e-Toll card must give improvement in service using the card in highway.

Limitations of this study is the fact that the study focuses solely on consumer e-Toll card regardless of the respondents and on how many times the-Toll card is used. Further research is expected to add more variables that determine customer satisfaction of highway users especially after the use of e-Toll cards that are required for all highway users at the end of 2017.

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