The Roles of Switching Barriers and Corporate Image between user Experience and Loyalty in Indonesia Mobile Network Operators

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Abstract - Recently, the competition among mobile network operators in Indonesia is getting tight that was shown by the price war and the saturated condition. Mobile network operator is the fastest growing companies in telecommunication sector that causes user has a wide range of selection. Previous authors believed that users will tend to be loyalty when they faced too many barriers to switch to other operator. Besides that, users also make a consideration regarding to the corporate image of their operator. This study has an intention to examine the effect of switching barriers and corporate image on the relationship between user experience and loyalty. Out of 400 respondents were obtained by quota sampling technique with 66 questionnaire items in Indonesia showed that switching barriers mediate the relationship between user experience and loyalty with the greatest value came from the relationship among perceived service quality, switching barriers, and loyalty. It implies that users will be loyal when they met too many barriers to become a switcher, at the time they perceived service quality in excellent condition. At the same time, corporate image strengthen the relationship between monetary and switching barriers, meaning that the relationship between monetary and switching barrier became stronger when users’ perceived corporate image was high.

Keywords - Corporate Image, Indonesia, Loyalty, Mobile Network Operators, Switching Barriers, User Experience.

I. INTRODUCTION

The industry of GSM operators in Indonesia has grown rapidly. Mason's analysis predicts that the penetration ratio will increase from 325 million in 2013 to 411 million in 2019 [67]. Today, GSM operators compete with each other to gain a competitive advantage in order to be able to retain existing users and increase the number of new customers. The ongoing tariff war will lead to a collapse and bankruptcy for operators unable to get new users and create competitive pricing [71]. In Indonesia, 95% of cellular operators are GSM operators. Based on market share, the top four operators are Telkomsel 45%, Indosat 21.6%, Tri 14.4% and XL 14% [70].

The financial statements of the three largest GSM operators revealed that the increased penetration of mobile users which has reached 135 percent did not affect the increase in average revenue per user (ARPU) [68]. Although the penetration of mobile users has increased, but the ARPU of GSM operators in Indonesia tends to be stagnant. Stagnation also occurs in the growth of customer quantity. GSM customers are interested in having cellular operators that provide low prices for SMS, telephone, data services, and internet access. However, the operator cannot fulfill this desire, so the users move from one operator to another which causes a change in the level of churn increase [69]. Most of the previous researchers argued that loyalty is one of the important things for companies to gain competitive advantage and survive in intense competition.

Loyalty can be achieved if the users are satisfied with their operators and if they face obstacles to switch to another operator [15,19,20,41,43,66]. It has been found that experience in the phase of cognition can influence satisfaction and switching barriers in the phase of affection and loyalty in the phase of conation / action [1,10,41,49,50,56,66]. Customer loyalty is a response to commitments that underlie the continuity of relationships, which is usually reflected by ongoing purchases from the same service provider [43,45,46,49,50]. User experience is very important in terms of customer acquisition and retention. User experience will be the main differentiator of the brand. In which, good user experience is one of the most valuable and strong
competitive advantages. Good experience can keep users from switching to other providers [50]. User experience influences switching decisions when intense competition is on the market [65]. Unlike some previous studies, this study has the intention to investigate and examine the relationship between user experience and loyalty through switching barriers as mediators, specifically the moderating role of corporate image on the relationship between seven constructs. This will be a contribution in this study.

II. LITERATURE REVIEW

User experience is often defined as the achievement of a product or service that is considered successful or failed by the user before the user feels the emotions of "likes / dislikes or satisfied / dissatisfied", and then the user will have the intention and action to be loyal. [34,43]. Loyal customers in technology-based products / services are positively influenced by user satisfaction for a memorable experience. People pay great attention to what a product does when it is being developed. User experience is another way to express the difference between a successful and a failed product. User experience is the experience of a product or service made to be used by someone in the real world. When a product or service is developed, customers pay much attention to them [29].

In the Information & Communication Technology (ICT) industry, experience is measured by the quality of coverage, network quality, price, value added services, and service quality [5]. User experience is divided into the dimensions of functionality, information architecture, content, design, user input, cellular context, usability, trust, feedback, assistance, social and marketing [32]. Dimensions of functionality, social, monetary, trust, and perceived service quality are mostly used by previous researchers [25,66].

Functionality refers to the practice of technical benefits that can be obtained by users when using providers [41,66]. Social is defined as benefits that can be felt by users when they are connected with other users, especially in their community [9,47]. Monetary means how satisfying the service provider is in relation to the costs, time and effort spent on it [18,25]. Trustworthiness can be seen as believe and intention. Trust refers to the user's perception of the provider attribute and intention describes the user's desire or willingness to rely on the trustee [13,42,66]. Perceived service quality is something cognitive and satisfying [49,50]. A high level of service quality is very important for service providers to gain a competitive advantage [16,44].

Switching barrier refers to a set of factors that make it difficult or expensive for customers to switch to other service providers [13,42,66]. Switching barrier can be developed by user experience and it is able to increase user dependence on the existing provider [43, 45, 46, 49, 50].

A high switching barrier is assumed to be able to deter customers from switching to other providers. The more difficult it is to learn to use new providers, the higher the obstacles customers feel for switching, so they have no intention to switch from the current provider. In 1997, Oliver divided behavior into two phases: conative and action. Loyalty to intention and loyalty to act inertia is included in the behavior phase [21]. Loyalty is defined as re-purchase behavior, which is driven by a favorable attitude toward the products, including attitudinal loyalty and behavioral loyalty. Loyalty is a firm commitment to rebuy the preferred products or services in the future, regardless of situational influences and marketing efforts that potentially lead to switching behavior [8,49,50,54].

Switching cost is "the cost incurred by consumers when switching from one service provider to another" [43,46,47,66]. It includes costs in the form of monetary, psychological aspects in dealing with a new company, time spent and efforts made in using a new service or product [38,39,48,49,50]. As it requires time and psychological effort when dealing with a new service provider, switching cost can be a barrier for changing service providers. As such, it can be confirmed as a mechanism to increase customer loyalty.

When switching from one provider to another, customers may have to learn a new system. Some people may feel learning something they are unfamiliar with is complicated and worthless. The more difficult it is to learn to use a new smartphone, the higher the switching costs perceived by customers. In addition, when consumers switch from one smartphone manufacturer to another, they have to spend monetary costs to buy a new device. The more expensive a new smartphone is, the higher the cost of switching will be. As a result, customers will tend to remain loyal to the current provider [12,51,52,5357,58,64].

Switching barriers can be developed by providing user experience and increasing user dependence on the
existing provider [51,54,55,56]. A high switching barrier is considered to be able to make the cost of switching to another provider expensive. For example, if customers consider learning to use a new provider is a problem and a difficulty, then they will consider that switching costs are expensive, so they have no intention of switching from the current provider. Some reasons for being loyal customers in relation to switching barrier functions [40,57,58,59,60,66], such as: other operators’ users are less satisfied, the prices offered by current operators make more sense, switching to other providers will cause too many problems, switching to other providers will be too expensive, switching to another provider will require too much learning.

Switching barriers can be simplified into three types: procedural, financial and relational switching costs. Procedural switching costs mainly include economic risk costs, evaluation costs, installation costs, and learning costs. Financial switching costs include cost of losing benefits and cost of monetary losses. Relational switching costs contain the cost of losing personal relationships and the cost of losing brand relationships [57,61,62,63,64,65].

Customer loyalty can be developed by brand image perceived by customers and satisfaction based on experience [52,53,69,70,71]. The relationship between brand equity and loyalty was examined several previous authors, loyalty can be developed through satisfaction and switching barriers as mediators between user experience and customer loyalty [23,57,66,67,68].

A famous brand if it does not provide good performance in fulfilling important attributes for consumers, then the image can decline. Positive experience can strengthen the brand and the credibility of the company, and improve communication and relationships between the company and customers. If customers have a pleasant experience with quality, it means they have a positive experience [14,31,32,33,34,35,36,37,38,39,40].

The effect of brand equity and satisfaction on customer loyalty revealed that brand equity and trust are consistently the most important antecedents for both the form of behavior and attitudes of customer loyalty. There is also evidence to suggest that the models underlying the formation of behavior and attitudes towards customer loyalty can vary across research settings [42,43,44,45,54].

A company with a good image can gain customer trust and expand customer purchase intentions for products / services by becoming loyal customers. It is proven that companies with a high level of image will be able to influence trust and purchase intention [1,24,25,26,27,28,29,30].

Corporate image not only moderates the relationship between perceived justice and satisfaction (i.e., satisfaction recovery and overall satisfaction), but also moderates the relationship between perceived justice and repurchase intention [4,15]. It has been found that corporate image strengthens the relationship between perceived justice and recovery satisfaction. Conversely, corporate image is not considered a moderator between perceived service quality and loyalty but it acts as a mediator between perceived service quality and loyalty for Malaysian service provider users [1,16,17,18,19,20,21,22].

A number of previous authors concluded that corporate image is a mediator within the framework of cognition-to-action loyalty [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,23,57]. Referring to this discussion, the suggested hypotheses are as follows:

- **H1a,b,c,d,e**: User Experience affects towards Switching barriers.
- **H2**: Switching barriers affects towards Loyalty.
- **H3a,b,c,d,e**: Switching barriers mediate the relationship between User Experience and Loyalty.
- **H4a,b,c,d,e**: User Experience affects towards Loyalty.
- **H5a**: Corporate Image moderates the relationship between User Experience and Switching Barriers.
- **H6a**: Corporate Image moderates the relationship between User Experience and Loyalty.

### III. Method

This study employed a non-probability sampling technique and the samples were taken from individuals who could be contacted and met. [59,60]. Data was collected through a cross-sectional survey involving 400 respondents and a Likert scale was employed to measure the interval of the responses given. Then, the data was analyzed by PLS-SEM. SEM is a family of statistical models used to explain the relationship between several variables. This examines the structure of reciprocal relationships expressed in a series of equations, similar to a
set of multiple regression equations. This equation illustrates all the relationships between constructs (dependent and independent variables) involved in the analysis [26, 27].

SEM has the advantage of being able to display a comprehensive model simultaneously with a smaller error rate, while the SEM modification index is able to provide more clues about the direction of the research and the model must be followed than using regression analysis. The purpose of PLS-SEM is to predict the approach model to maximize the variance explained by endogenous (or dependent) latent variables by estimating the relationship of the partial model in an iterative sequence of the ordinary least squares regression [27].

IV. RESULTS AND DISCUSSIONS

Based on Figure 1, it can be seen that the outer loadings of 66 items are fulfilled the rule of thumb in convergent validity since the outer loadings are above 0.7. The value of path coefficient in inner model shows that there are 4 accepted hypotheses in direct effect from 11 hypotheses in direct effect model and there are 2 accepted hypotheses in mediator effect from 5 hypotheses in mediator effect model, and no accepted model in moderator effect model.

Table 1 delineates the value of discriminant validity in the criteria of valid. Table 2 portrays that cronbach’s alpha, composite reliability, and AVE value are fulfilled the rule of thumb since cronbach’s alpha and composite reliability are above 0.7 and AVE is above 0.5. Table 3 describes the accepted hypotheses in direct effect model, mediator, and moderator effect model. Table 4 indicates the value of $R^2$, $Q^2$, SRMR, NFI. The rule of thumbs for $Q^2$ is the model will be good prediction if the value above 0.00, SRMR means the model fit if the value below than 0.05, and NFI must be higher than 0.80. In this study, the value of $Q^2$, SRMR, NFI are accepted based on the rule of thumbs, it implicates that the model is fit and good prediction. The value of $R^2$ for Loyalty means it can be explained by user experience, switching barriers, and corporate image by 71.8% in the criterion of moderate; The value of $R^2$ for Switching Barriers means it can be explained by user experience by 60% in the criterion of moderate.

It has been described that this study contains 16 sub hypotheses based on theoretical framework and the result shows there are 6 accepted sub hypotheses in direct effect model and mediator effect model. As can be seen in Table 4, the relationship between user experience (functionality, social, monetary, perceived service quality, trustworthiness) and switching barriers shown that social is greater than monetary. According to users’ response, switching barriers is built when users agree that there are not many other operators that would be more attractive, there will be too many problems when switching to other operator, there will take a lot of effort to change to other operator, switching to other operators would require too much learning, it will take a lot of time for changing to other operator, it will spent a lot of time searching for information about other operators, and switching to other operator would be too expensive [12,57,58,64].

In the context of service provider: switching barriers are more likely to result from relationships among users, user tend to use the same provider with their friends to be accepted in social community and when they find there are too many barriers to switch hence they will stay on the current provider. It has been found the role of social as a precursor to switching barriers. Monetary is found as another antecedent of switching barriers that referred to how worth their cellular operator with the price they paid. If users had a good experience in monetary, i.e. they are pleased with the price that they paid for their cellular operator, so that it will increase switching costs and decrease switching behaviour [35,40,42].

Switching barriers are measured by perceived switching costs and perceived lack of alternatives. Since monetary switching cost is one indicator of perceived switching costs hence there is a direct relationship between perceived monetary based on user experience and monetary switching cost [13,44,55,66]. Social and monetary as the antecedents of switching costs; in which non-monetary switching costs are perceived as higher and more difficult to compensate by competitors, it is proven that the direct effect of social (non-monetary) is higher than monetary based on user experience [24,33,46,53].
Switching barriers affects positively and significantly on loyalty, which means the higher switching barriers, the higher loyalty. Based on users’ responses, loyalty is not only affected by satisfaction but also can be affected by switching barriers. When users think that there is lack of alternatives attractiveness from other operators, switching to other operators can cause too many problems; it will take a lot of money-effort-time to change to other operators, so that they will stand loyal to the current operator [43,44,45,46]. Switching barriers as consumer perceptions of time, money, and effort associated with changing service providers. It is also including the alternative attractiveness. The result shows that switching barriers have a positive effect towards loyalty even though the relationship between switching barriers and loyalty is lower than the relationship between satisfaction and loyalty. a positive direct effect of switching costs on customer loyalty that illustrates the higher the perceived costs of switching, the more likely the customer will stay with their current provider [13,44].

Fig 1. Research Path Model with path-coefficient

In this study, it has been found that switching barriers fully mediates the positive and significant relationship between social and loyalty. It implies users will become loyal when they have social bonds and encounter to many risky to switch to the other operators. On the other hand, switching barriers partially mediates the positive and significant relationship between monetary and loyalty since monetary influences positively and significantly towards loyalty. It indicates when users find that the barrier to switch to the other operators is high at the same
time they find the perceived value for money hence they will become loyal, additionally if they affirm their cellular operator offers the value for money and worth with the price they paid hence they will remain loyal.

In addition, if users have a good experience regarding to monetary (i.e. they paid at the price level, they paid economically, the price is worth with the price paid compared to another operator), hence they will become loyalty even though they didn’t face any barriers to switch to another operator. While, corporate image is not found to moderate the relationship among user experience and loyalty, meanings that the higher the corporate image or the lower the corporate image didn’t strengthen or weaken the relationship between user experience and loyalty.

Table 1. Fornel-Larcker Criterion
F: Functionality; S: Social; M: Monetary; T: Trustworthiness; P: Perceived service quality; I: Corporate Image; B: Switching barriers; L: Loyalty

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functionality</td>
<td>0.982</td>
<td>0.984</td>
<td>0.824</td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.977</td>
<td>0.980</td>
<td>0.847</td>
</tr>
<tr>
<td>Monetary</td>
<td>0.965</td>
<td>0.971</td>
<td>0.805</td>
</tr>
<tr>
<td>Perceived Service Quality</td>
<td>0.969</td>
<td>0.974</td>
<td>0.842</td>
</tr>
<tr>
<td>Corporate Image</td>
<td>0.983</td>
<td>0.985</td>
<td>0.879</td>
</tr>
<tr>
<td>Social</td>
<td>0.960</td>
<td>0.969</td>
<td>0.863</td>
</tr>
<tr>
<td>Switching barriers</td>
<td>0.951</td>
<td>0.958</td>
<td>0.696</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>0.961</td>
<td>0.968</td>
<td>0.812</td>
</tr>
</tbody>
</table>

Table 2. Cronbach’s Alpha, Composite Reliability, AVE

<table>
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Table 3. Summaries of Accepted Hypotheses

<table>
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<th>Hypotheses</th>
<th>Path Coefficient</th>
<th>t-value</th>
<th>P-value</th>
</tr>
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<tbody>
<tr>
<td>$H_{0a}: S \rightarrow B$</td>
<td>0.156</td>
<td>2.245</td>
<td>0.025</td>
</tr>
<tr>
<td>$H_{0b}: M \rightarrow B$</td>
<td>0.155</td>
<td>3.270</td>
<td>0.024</td>
</tr>
<tr>
<td>$H_{0c}: B \rightarrow L$</td>
<td>0.113</td>
<td>2.497</td>
<td>0.013</td>
</tr>
<tr>
<td>$H_{0d}: S \rightarrow B \rightarrow L$</td>
<td>0.168</td>
<td>2.813</td>
<td>0.035</td>
</tr>
<tr>
<td>$H_{0e}: M \rightarrow B \rightarrow L$</td>
<td>0.217</td>
<td>2.349</td>
<td>0.010</td>
</tr>
<tr>
<td>$H_{0f}: M \rightarrow L$</td>
<td>0.150</td>
<td>3.109</td>
<td>0.002</td>
</tr>
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</table>

Table 4. The value of $R^2$, $Q^2$, SRMR, NFI

<table>
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<th>$Q^2$</th>
<th>SRMR</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td>0.718</td>
<td>0.570</td>
<td>0.048</td>
<td>0.811</td>
</tr>
<tr>
<td>Switching Barriers</td>
<td>0.600</td>
<td>0.392</td>
<td>0.048</td>
<td>0.811</td>
</tr>
</tbody>
</table>

V. CONCLUSIONS

User experience affects towards switching barriers that means users who perceived good experience in their cognitive phase will influence their response on switching barriers. It has been known that switching barriers is obtained from social and monetary. Switching barriers mediates the positive and significant relationship between user experience and loyalty. Users who gain good experience in social and monetary will stay loyal since loyalty is achieved after they face there are too many switching barriers in monetary, effort, and time.
Moreover, it will take a lot of time and effort and moreover it would be take a lot of time to notifying their friends about these changes. Implications for practitioners are the company needs to maintain user’s loyalty based on the user experience because if users have a good experience in functionality, social, monetary, trustworthiness, perceived service quality hence they will feel satisfy and response for switching barriers then they will become stay loyal. Implication for future researcher are adapted this model and make a consideration to put brand equity and customer equity in this model.

VI. ACKNOWLEDGEMENT

The author wishes to express gratitude towards School of Economics and Business, Telkom University and Graduate School of Business, University Sains Malaysia, who greatly support this research.

VII. REFERENCES


