

The Relationship between User Experience, Customer Satisfaction, Switching Cost and Customer Loyalty in Indonesia Cellular Operators

Lui Anbar Rhainata¹, Indira Rachmawati²

¹International ICT Business, Faculty of Economics and Business, Telkom University

²Faculty of Economics and Business, Telkom University

ABSTRAK. Industri telekomunikasi di Indonesia sangat kompetitif dalam beberapa tahun terakhir dengan jumlah langganan kartu SIM melebihi jumlah penduduk. Telkomsel, Indosat, XL Axiata dan Tri adalah penyedia layanan terbesar di Indonesia. Daya saing yang tinggi telah membuat XL Axiata mengalami pertumbuhan pelanggan yang negatif. Penelitian ini bertujuan untuk menguji hubungan antara *Customer Loyalty*, *Customer Satisfaction*, *Switching Cost*, dan *User Experience*. Enam prediktor *User Experience* pengguna telah dipilih untuk penelitian ini berdasarkan tinjauan literatur. *Non probability sampling* digunakan dalam penelitian ini dan selanjutnya teknik *sampling insidental* digunakan. Kuesioner dilakukan melalui 385 responden sebagai bagian dari populasi dengan menggunakan kuesioner format digital. Analisis *Partial Least Square* (PLS) digunakan untuk menjelaskan hasil kuesioner dengan menggunakan perangkat lunak SmartPLS. Dari hasil analisis data statistik, semua item yang diukur dalam penelitian ini valid dan reliabel. Pada analisis *Partial Least Square*, model yang digunakan dalam penelitian ini telah melewati analisis *outer model* dan analisis *inner model*. Lima dari enam prediktor *User Experience* memiliki efek positif terhadap *Customer Satisfaction*, kecuali *Emotional*. *Trust*, *Switching Cost*, dan *Customer Satisfaction* berpengaruh positif terhadap *Customer Loyalty*.

Keywords: User Experience, Customer Satisfaction, Service Providers, SEM-PLS

ABSTRACT. The telecommunication industry in Indonesia is highly competitive in recent years with the number of mobile subscription exceeding the number of population. Telkomsel, Indosat, XL Axiata and Tri are the biggest service provider in Indonesia. The high competitiveness has made XL Axiata experiencing a negative customer growth. This study aims to examine the relationship between customer loyalty, customer satisfaction, switching cost, and user experience. Six main predictors of user experience have been selected for this research based on the literature review. Non-probability sampling is used in this research and furthermore incidental sampling technique is used. The questionnaires were administered through 385 respondents as part of population using digital format questionnaire. Partial least square (PLS) analysis is used to explain the results of questionnaire using SmartPLS software. From the statistical data analysis results, all the items measured in this study are valid and reliable. In the partial least square analysis, the model used in this study had passed the outer model and inner model analysis. Five of the six user experience predictors have positive effects towards customer satisfaction, with the exception of emotional. Trust, switching cost, and customer satisfaction have positive effects towards customer loyalty.

Keywords: User Experience, Customer Satisfaction, Service Providers, SEM-PLS

1. Introduction

Communication has become very important in our lives as it is very inseparable from our daily activities. In recent era, one of the tools used for communication is the mobile phone. As of January 2016, the number of mobile connection subscription in Indonesia stand at 326.3 million, way more than the population ^[1]. The biggest mobile service providers in Indonesia in terms of total users are Telkomsel, Indosat, and Tri respectively. Telkomsel has the biggest total number of user with 152.6 million users. Second is Indosat who has 69.7 million users. Tri has 55 million users. XL Axiata has a total of 41.9 million total users.

Although the number of active user increased, the profit of the telecommunication industry does not follow the increase of active user. It has stimulated telecom service providers to perform a variety of business strategies to achieve customer loyalty. The increasingly fierce competition spurred telecom service companies to develop their business by strengthening digital services as well as a variety of innovative services to meet customers need. Telecom service companies need to expand from mobile and data services to value added services ^[2].

Currently the average ARPU in the telecommunication industry is 25,000 IDR and that the arrival of 4G can increase ARPU but not necessarily increase profit. ARPU could increase because the high usage of bandwidth causes phone credits to be refilled more frequently ^[3].

More and more business are designing and promoting user experience as it becomes more important to their success. As technology develops and becomes commonplace, a high level of usability is taken for granted and something more is needed to make people engaged with a product ^[4]. New technology needs to fulfill not only the utility needs but also the hedonic need of the user ^[5].

In modern environment the only constant is change. Therefore businesses have to develop different strategies in order to survive in the long run. One of the best strategies is about satisfying the customers that ensure the long term growth of business. Since satisfied customer is the core concern of any organization therefore they pay close attention towards the factors that influence a customer's decision towards brand ^[6]. In a competitive industry such as telecommunication industry, delivering high quality service is the key for a sustainable competitive advantage. Thus, measuring customer satisfaction is important for telecommunication service providers to meet customers' needs, provide more satisfaction and to ensure their business sustainability ^[7].

In the telecommunication industry, the difficulty to switch to another service provider is referred to as the switching cost. Subscription with a service provider could probably be maintained involuntarily because a customer is prevented by the switching cost of changing service provider. Even though some customers are not satisfied with their service provider, they do not want to end subscription due to the switching cost. Therefore, the higher the switching cost, the more customers are forced to remain with their current provider ^[8].

Because of the changing trends in competition, companies are now investing more resource seeking to create a loyal base of customers. Pursuing customer loyalty as a strategic business goal is becoming more and more popular. Attracting new customers should only be viewed as a secondary strategy in the marketing process and business managers should focus on long term relationship with customers ^[9].

2. Theoretical Review

2.1 User Experience

User experience is all aspects of the end-user association with the company, both its services and its products. The first requirement for a good user experience is to meet exact needs of the customer without difficulty. The user experience not only gives customers what they say they want, or providing checklist features ^[10].

2.1.1 Dimensions of User Experience

Functionality

Functionality is characterized as the tools and features that empower users to complete task and accomplish their objective ^[11]. A functional product ought to be capable of producing a certain feelings in user ^[12].

Trustworthiness

Trust is privacy protection permitting a user to choose how his or her personal data is utilized. Furthermore, he stated that trust is the user impression of provider's capabilities and knowledge to the expected behavior, which is integrity ^[13].

Social

There is a connection between a product and someone's identity. Identity is related to other people, subsequently, social value is how a person's look in the eyes of others when they are using a product or service ^[14].

Perceived Service Quality

Service quality is a measure of how well the service level delivered matches the customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis. Perceived service quality is what the real perceptions of the service that the customers received ^[15].

Monetary

Monetary means how much the service is satisfactory considering the cost, time or effort spent in using the said service ^[16]. Reasonable pricing compared to alternatives has been recognized as an advantage of mobile services and as a source of satisfaction ^[17].

Emotional

Emotional value is the utility received from the feelings or affective states that an item produces ^[18]. The play or fun picked up by utilizing the service for its own purpose is related to emotional value ^[19].

2.2 Customer Satisfaction

Customer satisfaction is the consequence of an evaluative procedure that contrasts pre-purchase expectations with perception of performance during and after the consumption of experience ^[20]. Customer satisfaction is defined as the purchaser reaction to the evaluation of the perceived discrepancy between prior expectations of the purchaser and the actual performance of a product as perceived after the consumption ^[21].

2.3 Switching Cost

Switching cost is the cost that the consumer brings about by changing one service provider to another, including the cost that is measurable in monetary terms, the mental aspect of facing a new firm, and the time and effort involved in using a new service or product ^[16].

Switching cost means the cost that incurs when switching, including time, money and psychological cost. Furthermore, switching cost is defined as perceived risk so long as there are potential losses perceived by customers when switching carriers such as losses of a financial, performance related, social, psychological, and safety related nature ^[22].

2.4 Customer Loyalty

Loyalty is a profoundly held commitment to rebuy a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational impacts and advertising efforts having the potential to cause switching behavior ^[23].

Customer loyalty is the customers' behavioral aim to persistently use mobile services with the present service provider, as well as their willingness to recommend the services to other people ^[16].

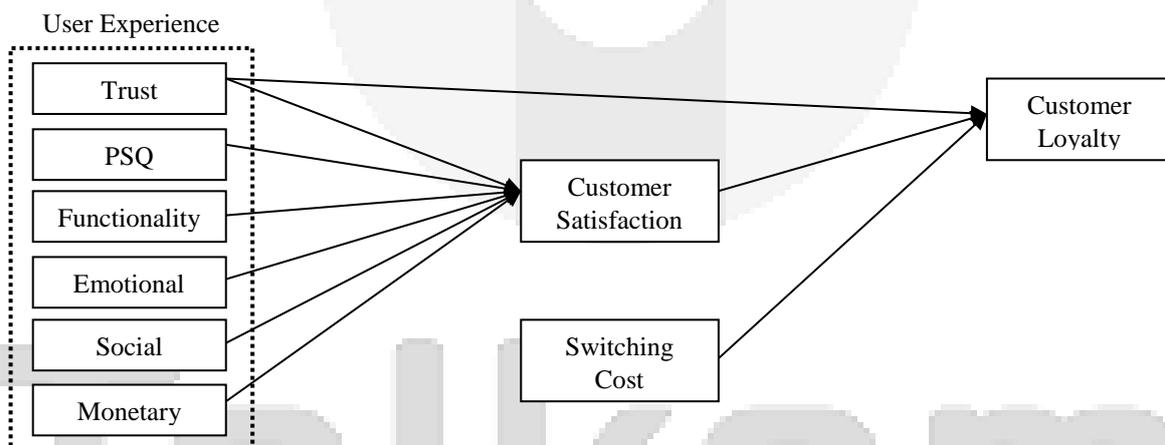


Figure 1 Theoretical Framework adopted from Deng et al. (2010)

This research is conducted to examine the relationship between user experience, customer satisfaction, switching cost, and customer loyalty in the 4 biggest telecommunication providers in Indonesia. Telkomsel, XL Axiata, Indosat and Tri are dominating the market. But the number of telecommunication subscriber has now exceeds the number of the population itself in Indonesia.

User experience is a very broad concept that describes all aspect of interaction between a user and a product. User experience concepts may vary in terms of scope, objects or elements considered. In this research, previous studies about has been collected focusing on the relationship of the dimensions of user experience with customer satisfaction and also corporate image. The dimensions of user experience used in this study are functionality, trustworthiness, social, emotional, perceived service quality, and monetary value based on the theories put forward by previous researchers.

The relationship of the user experience dimensions with customer satisfaction, switching cost, and customer loyalty has already been examined by Deng et al. (2010). Therefore, the framework that will be used in this research will be adopted from Deng et al. with the exception that gender, age, and usage time will not be included as having moderating effects on the variables. The reason behind this is because in Deng et al. gender, age, and usage time all have no significant effects on the relationship between the variables.

The hypotheses in this research are summarized in Table 1 below:

Table 1 Hypothesis of the Research

H1	Functionality positively affects Customer Satisfaction
H2	Emotional positively affects Customer Satisfaction
H3	Social positively affects Customer Satisfaction
H4	Monetary positively affects Customer Satisfaction
H5	Perceived Service Quality positively affects Customer Satisfaction
H6	Trust positively affects Customer Satisfaction
H7	Trust positively affects Customer Loyalty
H8	Switching Cost positively affects Customer Loyalty
H9	Customer Satisfaction positively affects Customer Loyalty

2.5 Research Methodology

In order to test the hypotheses, this study collects data from 385 respondents, through survey by using questionnaire distributed to respondents. To analyze the data that collected, the researcher used a Smart PLS software. In PLS, there are 2 different testing model that is conducted, which is outer and inner model. Outer model is used to test the indicators with their own latent variable or in other words to measure how far the indicators able to describe the latent variable. Indicators are tested with convergent validity, discriminant validity and also Average Variance Extracted (AVE), and composite reliability. The other test that will conducted is inner model. Inner model is used to test the influence of one latent variable to the other latent variable. The test itself conducted by looking at the percentage of variance that explained, which is R^2 for dependent latent variable modeled is influenced by independent latent variable. This hypothesis is tested by using t -statistics test, through bootstrapping procedure.

3. Result and Discussion

The path coefficients should have t -values of at least 1.645, to be accepted. Table 2 shows the path coefficients and t -values of the model:

Table 2 Path Coefficient and t -Value

Variable Relationship	Path Coefficient	t -Value	Conclusion
F→CS	0.163	2.024	Accepted
E→CS	0.094	1.112	Rejected
S→CS	0.227	3.230	Accepted
M→CS	0.089	1.873	Accepted
PSQ→CS	0.201	3.072	Accepted
T→CS	0.210	3.631	Accepted
T→CL	0.177	3.846	Accepted
SC→CL	0.141	3.328	Accepted
CS→CL	0.633	15.174	Accepted

This research attempts to investigate the relationship between User Experience, Customer Satisfaction, Switching Cost, and Customer Loyalty. This research has studied the effects of the dimensions of the User Experience which are Functionality, Emotional, Monetary, Social, Perceived Service Quality and Trust towards Customer Satisfaction. Furthermore, this study also aims to investigate the effects that Switching Cost and Customer Satisfaction has on Customer Loyalty.

The result of the hypotheses testing has shown that all of the hypotheses used in this research are accepted except for one. First, out of all dimensions of User Experience (Functionality, Emotional, Social, Monetary, Perceived Service Quality, and Trust) only the Emotional variable that has no positive effects on Customer Satisfaction. This implies that the customers have not received any significant emotional value from the service providers.

Next, Trust is confirmed to have positive effects towards Customer Loyalty. It means when the customers trust their service providers they will more likely to be loyal and not switch to other providers. The hypothesis that Switching Cost positively affects Customer Loyalty is also accepted. This implies that the more difficult it is to switch to another provider, the more likely the customer will stay with current provider. And the positive effect of

Customer Satisfaction towards Customer Loyalty is also confirmed in this research. Furthermore, this relationship is the strongest out of all relationship in this research with path coefficient of 0.633.

4. Conclusion and Suggestion

4.1. Conclusion

The following are the conclusions derived from the results of this research which is expected to be able to answer the research questions:

1. From the series of statistical and hypotheses testing of this research, it can concluded that out of the 6 dimensions of User Experience (Functionality, Emotional, Social, Monetary, Perceived Quality and Trust), only Emotional value that has no positive effects towards Customer Satisfaction.
2. From the series of statistical and hypotheses testing of this research, it can concluded that Trust, Switching Cost, and Customer Satisfaction all have positive effects towards Customer Loyalty.

4.2. Suggestion

4.2.1 Theoretical Aspect

This study has a few limitations. First, the sample which are used in this research mainly comprise from west area of Indonesia which can affect the generalizability of the findings, therefore, further research should use different approach of sampling such as quota sampling to have sample that represent all area of Indonesia. Furthermore, this research does not separate the questionnaire between each operator and is only looking at the industry as whole thus limiting the distinguishable factors from each service provider as there are yet no researches available about the industry as a whole. Further research can add to the literature by investigating each service provider and therefore can make more specific suggestions for each service provider.

And last, future researchers could investigate other variables that come up a lot in the customer satisfaction and customer loyalty literature such as brand image and purchase intention.

4.2.2 Practical Aspect

Based on the result of the conclusion, the following are the suggestions that the researcher would like to make:

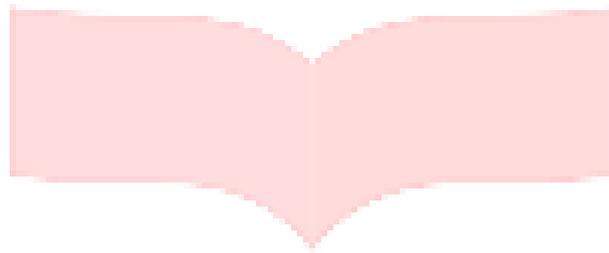
1. This research has shown the positive effects that the User Experience dimensions have on Customer Satisfaction. Five out of six dimensions have shown to have positive effects towards Customer Satisfaction. Therefore, service providers can use this information to further examine and improve on areas that have shown to contribute towards Customer Satisfaction which are Functionality, Social, Monetary, and Perceived Service Quality.
2. This research also shows that Customer Loyalty is positively affected by Customer Satisfaction, Trust, and also Switching Cost. With this information service providers should further focus their resources and efforts towards creating a more loyal customer by creating more satisfactory services, showing goodwill towards the customer and also keeping the prices low and fair.
3. Service providers should give much more attention on creating a satisfied customer. Because Customer Satisfaction is the strongest influence that affects Customer Loyalty.

References

- [1] Tech in Asia. (2016). *The Latest Stats in Web and Mobile in Indonesia*. [online]. <https://www.techinasia.com/indonesia-web-mobile-statistics-we-are-social> [14 February 2017]
- [2] Pride. (2015). *Apa yang Dilakukan Provider Telekomunikasi untuk Mendapatkan Perhatian Publik*. [online]. <http://pride.co.id/2015/03/apa-yang-dilakukan-provider-telekomunikasi-untuk-mendapatkan-perhatian-publik/> [12 November 2016]
- [3] Indotelko. (2015). *ARPU Naik, Pendapatan Nanti Dulu*. [online]. <http://www.indotelko.com/kanal?c=id&it=arpu-naik-pendapatan-nanti-dulu> [10 Oktober 2016]
- [4] Pine II, B. Joseph., and Gilmore, James H. (1998). *Welcome to the Experience Economy*. Harvard Business Review July-August 1998. [online]. <https://hbr.org/1998/07/welcome-to-the-experience-economy> [8 May 2017]

- [5] Roto, V. (2006). *Web Browsing on Mobile Phones – Characteristics of User Experience*. Doctoral Dissertation for Department of Computer Science and Engineering, Helsinki University of Technology
- [6] Hafeez, Sehrish., Hanif, Muzammil., Riaz, Adnan. (2010). *Factors Affecting Customer Satisfaction*. International Research Journal of Finance and Economics. ISSN 1450-2887 Issue 60, 45-52.
- [7] Thokoa, Katleho E., Kalebe, Kalebe M. (2015). *Students Satisfaction with Mobile Phone Services at National University of Lesotho*. Research Journal of Finance and Accounting, Vol. 6, No. 10, 84-92.
- [8] Calvo-Porrall, Cristina., Levy-Mangin, Jean-Pierre. (2015). *Switching Behaviour and Customer Satisfaction in Mobile Services: Analyzing Virtual and Traditional Operators*. Computers in Human Behavior, 49, 532-540.
- [9] Tarus, Daniel Kipkirong., Rabach, Nicholas. (2013). *Determinants of customer loyalty in Kenya: does corporate image play a moderating role*. The TQM Journal, Vol. 25 Iss 5 pp. 473-491
- [10] Nielsen Norman Group. *The Definition of User Experience (UX)*. [online]. <https://www.nngroup.com/articles/definition-user-experience/> [20 December 2016]
- [11] Smashing Magazine. (2012). *The Elements of Mobile User Experience*. [online]. <https://www.smashingmagazine.com/2012/07/elements-mobile-user-experience/> [20 February 2017]
- [12] Mishra, Abhishek., Dash, Satya Bhusan., (2014). *Linking User Experience and Consumer-Based Brand Equity: the Moderating Role of Consumer Expertise and Lifestyle*. Journal of Product & Brand Management, Vol. 23 Iss 4/5 pp. 333 - 348
- [13] Zarpou, Theodora., Saprikis, Vaggelis., Markos, Angelos., Vlachopoulou, Maro. (2012). *Modeling Users' Acceptance of Mobile Services*. Electron Commer Res, 12:225-248
- [14] Roto, V., Rautava, M. (2008). *User Experience Elements and Brand Promise*. International Engagibility and Design Conference.
- [15] Parasuraman, A., Zeithaml, Valarie A., and Berry, Leonard L. (1985). *A Conceptual Model of Service Quality and Its Implications for Future Research*. Journal of Marketing, Vol. 49, No. 4 (Autumn, 1985), pp. 41-50
- [16] Deng, Z., Lu, Y., Wei, Kwok K., Zhang, J. (2010). *Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China*. International Journal of Information Management, Vol. 30, 289-300
- [17] Pihlstorm, M., (2008). *Perceived Value of Mobile Service Use and Its Consequences*. Sweden: Department of Marketing, Swedish School of Economics and Business Administration
- [18] Sweeney, Jillian C., Soutar, Geoffrey N. (2001). *Consumer perceived value: The development of a multiple item scale*. Journal of Retailing 77 203-220
- [19] Pura, M. (2005). *Linking Perceived Value and Loyalty in Location-Based Mobile Services*. Managing Service Quality, Vol. 15, No. 6, pp. 509-538
- [20] Oliver, Richard L. (1980). *A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions*. Journal of Marketing Research, Vol. 17, No. 4, pp. 460-469
- [21] Tse, David K., and Wilton, Peter C. (1988). *Models of Customer Satisfaction Formation: An Extension*. Journal of Marketing Research, Vol. 25, pp. 204-212
- [22] Kim, Moon-Koo., Park, Meong-Cheol., Jeong, Dong-Heon. (2004). *The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services*. Telecommunications Policy, Vol. 28, pp. 145-159

[23] Oliver, Richard L. (1999). *Whence Customer Loyalty?* Journal of Marketing, Vol. 63, Fundamental Issues and Direction for Marketing, pp. 33-44



Telkom
University