

## THE EFFECT OF CORPORATE IMAGE ON USER EXPERIENCE AND CUSTOMER LOYALTY RELATIONSHIP: A Study of GSM Operators in Indonesia

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### Abstract

This research examines user experience (UX) partial influencing effect on customer loyalty and corporate image moderation influencing effect on user experience and customer loyalty relationship. The variables used are user experience main predictors (functionality, trustworthiness, social, perceived service quality, monetary), customer loyalty, and corporate image. Non probability sampling technique is used in this study, and convenience sampling is also used as one of the type in non probability sampling. The questionnaires were administered through 385 respondents as part of the population. Partial Least Squares (PLS) analysis method is used to explain the results. It was found that the most partial influential predictor of UX on customer loyalty is perceived service quality while trustworthiness is the least. In the moderation effect by corporate image, it was found that trustworthiness is the only influential predictor of UX on customer loyalty relationship.

Keywords: corporate image, user experience, customer loyalty, telecommunication, GSM operators

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### Abstrak

Penelitian ini meneliti pengaruh *user experience* secara parsial terhadap *customer loyalty* dan pengaruh *corporate image* terhadap hubungan *user experience* dan *customer loyalty*. Variabel yang digunakan adalah variabel yang memprediksi *user experience* (*functionality, trustworthiness, social, perceived service quality, monetary*), *customer loyalty*, dan *corporate image*. Teknik *non probability sampling* digunakan dalam penelitian ini, dan *convenience sampling* juga digunakan sebagai salah satu tipe dalam *non probability sampling*. Kuisioner disebar kepada 385 responden sebagai bagian dari populasi. Metode analisis *Partial Least Squares (PLS)* digunakan untuk menjelaskan temuan dalam penelitian. Ditemukan bahwa variabel prediktor *user experience* yang paling banyak mempengaruhi secara parsial terhadap *customer loyalty* adalah *perceived service quality* sedangkan *trustworthiness* adalah variabel prediktor *user experience* yang paling sedikit mempengaruhi. Pada hubungan moderasi oleh *corporate image*, ditemukan bahwa *trustworthiness* adalah satu-satunya variabel prediktor *user experience* yang mempengaruhi *customer loyalty*.

Kata kunci : *corporate image, user experience, customer loyalty, telekomunikasi, operator GSM*

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### 1. Introduction

In earlier condition, cellular operators market in Indonesia can be categorized into two platforms, which are CDMA and GSM. In 2014, the penetration of GSM reach 92% of cellular market in Indonesia [1]. The domination of GSM platform makes Telkomsel, Indosat Ooredoo, XL Axiata, and Hutchinson 3 as the only GSM business players in Indonesia [2]. Those GSM service providers almost facing a stable growth since the year 2011 until 2015 according to their annual reports [3],[4],[5],[6],[7],[8],[9]. And the ARPU for those operators is in the price range of 24.000 until 43.000 rupiahs. Churn rate issues can't be avoid by the GSM companies, which lead to the company results in loss of revenue and also customer loyalty [10]. According to Garrett insist that initiatives strategy that the business players use to maintain its customers loyalty will produce experience, and the experience that customers get from using a product or service is very important to build their loyalty [11]. Researchers Kim et al. [12] mentioned that user experience as an ambiguous and abstract construct that can be elaborate through more concrete attributes or main predictors. The existence of corporate image also shows an important role between user experience and relates positively with customer loyalty [13],[14]. Therefore, become the author reasons in doing this research. Based on that explanation, this study intent to:

1. Find out the partial influencing effect between user experience and customer loyalty of GSM operators in Indonesia.
2. Find out corporate image influencing effect on user experience and customer loyalty relationship of GSM operators in Indonesia.

## 2. Theories and Methodology

### Corporate Image

Researchers Andreassen and Lindestad defined corporate image as the important routes to customer loyalty either in retaining or attracting customers [15]. Sirapricha and Tocquer study in telecommunication services showed important relationships between customer experience, brand image, and customer loyalty [13].

### User Experience

Hassenzahl and Tractinsky defined user experience as a consequence of user's internal state, the characteristics of the designed system such as complexity, purpose, usability, functionality and the context within which interaction occurs such as in organizational or social setting [16]. Kim et al. study results in user experience for mobile phone and services, claimed that UX is concerned with experience that occurs when a user interacts with a product or service. On their research, Kim et al. developed three main elements of UX which is usability, affect, user value, and their sub elements [12].

### Functional Value

Sweeney and Soutar defined functional value as the benefit consumers can obtain from the perceived service quality and expected performance of the product or service [17]. According to Holbrook in Mishra et al., "Linking User Experience and Consumer Based Brand Equity: The moderating role of consumer expertise and lifestyle" mentioned that usability aggregates functional value [18]. Following this statement, the terms of functional will be use in this study to substitute the use of usability term as it considered that study of UX in GSM service provider is more focused on the overall functional aspect due to its interactions characteristic.

### Trustworthiness

Trustworthiness is an extent to which a product or service deserves of trust or confidence [12]. According to Mcknight and Chervany [19] trust can be viewed as trusting belief and trusting intention. Trusting belief refers to the user's perceptions of attributes of service providers, including the ability, integrity, and virtue of the providers. While trusting intention describes the truster's willingness or intention to depend on the trustee.

### Social Value

Social value is an extent to which a product or service provides the user values related to social issues, problems, and reforms [12].

### Perceived Service Quality

Shin and Kim [20] defined service quality as a consumer's overall impression of the relative efficiency of the service provider. According to a study conduct by Agyei and Kilika [21] shows that there is a relatively strong relationship between the service quality and customer loyalty.

### Monetary Value

Sweeney and Soutar defined monetary value as the benefit acquired from the product to the reduction of its perceived short term and long term costs [17]. According to Tseng and Lo [22] study in telecommunication service have found that monetary value is affecting customers' intentions to upgrade the service that they use on their current service provider.

### Customer Loyalty

Customers may demonstrate their loyalty in many ways such as by staying with a provider or not, and increasing the number of purchase or the frequency of their purchases [23]. A study result in mobile internet subscribers conducts by Chuah et al., [24] claimed that their study provides enrichment to the emerging value by proposing a customer-oriented value model such as functional value, monetary value, emotional value, customization value, and relational value. They admit that their model can be used to predict the various aspect of customer loyalty (attitudinal, behavioral, and composite) in the mobile Internet service background.

### Hypothesis

The hypothesis in this study is:

$H_1$ : The greater the functionality lead to the greater customer loyalty positive relation

$H_2$ : The greater the trustworthiness lead to the greater customer loyalty positive relation

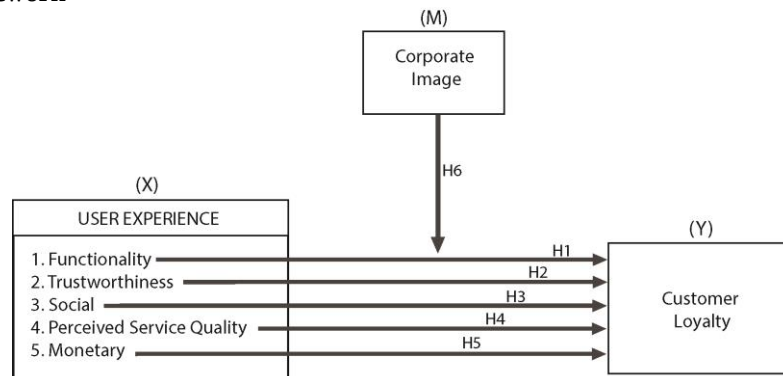
$H_3$ : The greater the social lead to the greater customer loyalty positive relation

$H_4$ : The greater the perceived service quality lead to the greater customer loyalty positive relation

$H_5$ : The greater the monetary lead to the greater customer loyalty positive relation

$H_6$ : The greater corporate image lead to the greater positive effect on user experience and customer loyalty relation

### Research Framework



Research framework is proposed based on literature review, using corporate image as the moderating variable (M) to understand its effect on relationship between user experience as the independent variable (X) and customer loyalty as the dependent variable (Y). According to Nguyen and Leblanc study results shows that corporate image relates positively with customer loyalty in telecommunication [14]. Sirapacha and Tocquer study in telecommunication services also showed important relationships between customer experience, brand image, and customer loyalty [13]. As mentioned by Kim et al [12] that user experience is an ambiguous and abstract construct, which can be elaborate through more concrete attributes. Based on this, the author first discuss the roles of five main predictors of user experience (X) in literature review and Meta analysis, the five main predictors is found which are functionality, trustworthiness, social, perceived service quality, and monetary (X1, X2, X3, X4, X5).

### Research Methodology

The sample used in this study is 385 which is calculated by using the formula mentioned in Zikmund et al [25]. The author used non probability sampling where the member of population has not equal chances to be the sample. The convenience sampling is used as one of the type in non probability sampling, which based on the convenience of researcher in approaching the population member in order to provide the information required in this research [26]. Data analysis technique used is statistical tools SPSS software version 23 for pilot test, Microsoft Excel, and SmartPLS version 3.2.6 for Mac OSX. In partial least square analysis using SmartPLS, the analysis conducted is as follows: Outer Model Analysis, Inner Model Analysis, and Hypothesis Testing.

The parameters for Outer model according to Abdillah and Hartono [27] consists of:

- Convergence Validity: Outer Loading result should  $> 0.5$ , and Average Variance Extracted (AVE) result should  $> 0.5$
- Discriminant Validity: AVE root  $>$  latent variable correlation, and Loading score should be  $>$  cross loading score (score in other constructs)
- Reliability Test: Cronbach's Alpha and Composite Reliability should be  $> 0.7$

The parameters for Inner Model [27] consist of:

- Coefficient determinants (R square)

The hypothesis testing type of this research is one tailed test right sided, as this research wants to investigate the influence of one variable to other variable in positive direction [28]. The parameters is as follows:

- The hypothesis is accepted if the t-statistic result is higher than the t-table score
- For one-tailed hypothesis with alpha 5% the t-table value is 1.64

### 3. Discussion

Respondents in this study were identified by age, gender, occupation, and their GSM usage period especially for those who had been using GSM service for more than six months. The respondent is also categorized based on three time and location regions including Waktu Indonesia Barat (WIB), Waktu Indonesia Tengah (WITA) and Waktu Indonesia Timur (WIT). From the partial influencing effect result using SmartPLS analysis shows that the entire constructs used in this study had passed the convergence validity, because the indicators used in this study is valid with outer loading score above 0.5 and average variance extracted (AVE) score above 0.5. The discriminant validity test result also shows a good results with AVE root score is higher than score in latent variable correlation and the loading score is higher than the cross loading score

(score in other construct). The reliability analysis result also indicates that the measurement tools used in this research is reliable with the value of Cronbach's Alpha and Composite Reliability above 0.7.

#### Coefficient determinants (R square) comparisons

**Table 1 R square result with Moderating Effect**

|   | R Square | R Square Adjusted |
|---|----------|-------------------|
| Y | 0.639    | 0.628             |

**Table 2 R square result without Moderating Effect**

|   | R Square |
|---|----------|
| Y | 0.566    |

The results from Table 9 and Table 10 show score comparisons of coefficient determinants between with and without moderating effect. The coefficient determinants score is higher in the existence of corporate image as the moderating variable with the R square value 63.9%. It means that 63.9% of dependent variable customer loyalty (Y) can be explain by the independent variable trustworthiness (X2) in this moderating interaction by corporate image (M) and the remaining 36.1% is explain by other variables which is not include in this study.

#### Hypothesis Testing for partial influencing effect ( $H^1, H^2, H^3, H^4, H^5$ )

**Table 3 Path Coefficient (Mean, STDEV, T Statistic)**

|         | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values |
|---------|---------------------|-----------------|----------------------------|--------------------------|----------|
| X1 -> Y | 0.197               | 0.196           | 0.068                      | 2.880                    | 0.002    |
| X2 -> Y | 0.145               | 0.145           | 0.068                      | 2.137                    | 0.017    |
| X3 -> Y | 0.067               | 0.072           | 0.055                      | 1.219                    | 0.112    |
| X4 -> Y | 0.319               | 0.316           | 0.076                      | 4.222                    | 0.000    |
| X5 -> Y | 0.166               | 0.167           | 0.051                      | 3.259                    | 0.001    |

The result from bootstrapping calculation in SmartPLS shows that variables in hypotheses  $H_1, H_2, H_4, H_5$  (functionality, trustworthiness, perceived service quality, monetary) are acceptable because the t-statistics value is  $> 1.64$ . And for hypothesis  $H_3$  (social) is not retained because this variable is not acceptable due to its t-statistic score is less than  $< 1.64$ .

#### Hypothesis Testing for Moderation Effect ( $H_6$ )

**Table 4 Path Coefficient (Mean, STDEV, T Statistic)**

|                           | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values |
|---------------------------|---------------------|-----------------|----------------------------|--------------------------|----------|
| M Corporate Image -> Y    | 0.455               | 0.447           | 0.059                      | 7.654                    | 0.000    |
| Moderating Effect X1 -> Y | -0.094              | -0.089          | 0.065                      | 1.450                    | 0.074    |
| Moderating Effect X2 -> Y | 0.118               | 0.113           | 0.062                      | 1.890                    | 0.030    |
| Moderating Effect X3 -> Y | -0.018              | -0.015          | 0.060                      | 0.303                    | 0.381    |
| Moderating Effect X4 -> Y | -0.010              | -0.009          | 0.074                      | 0.135                    | 0.446    |
| Moderating Effect X5 -> Y | 0.028               | 0.026           | 0.055                      | 0.516                    | 0.303    |

The result from bootstrapping calculation in SmartPLS shows that the moderating variable which is corporate image (M) has a positive relation with the relationship between independent variable construct trustworthiness (X2) and the dependent variable customer loyalty (Y) with the t-value score  $1.89 > 1.64$ . The moderating variable has no positive relation with the relationships of other independent variable construct such as functionality, social, perceived service quality, and monetary (X1, X3, X4, X5) as the results of its t-statistics is  $< 1.64$ .

#### 4. Conclusion

According to the results of partial least square (PLS) analysis and hypothesis, can be drawn some conclusions:

1. Functionality, Trustworthiness, Perceived Service Quality, and Monetary as the main predictors of user experience has positive relation on customer loyalty.
2. The statistical results shows that Hypothesis 1, Hypothesis 2, Hypothesis 4, Hypothesis 5, and Hypothesis 6 in this research are accepted. Therefore, corporate image has positive relation in influencing user experience and customer loyalty relationship.
3. The most partial influential predictor of user experience on customer loyalty is perceived service quality while trustworthiness is the least influential predictor.
4. In the moderation effect by corporate image, the most influential predictor of user experience on customer loyalty is only trustworthiness.
5. In the partial influencing effect, 56.6% of GSM operator customer loyalty (Y) in Indonesia can be explained by functionality, trustworthiness, perceived service quality, and monetary as the main predictors of user experience (X). In the moderating influencing effect, 63.9% of GSM operator customer loyalty in Indonesia can be explained by corporate image (M), and trustworthiness (X2). The other 36.1% of GSM operator customer loyalty in Indonesia come from other variable that does not mention in this research.



## Bibliography

- [1] ID. (2014, 29 Desember). Ini Penyebab Pudarnya CDMA di Indonesia [online]. Tersedia: <http://www.indotelko.com> [1 September 2016]
- [2] Noor, A.R. (2016, 22 Juni). CEO Indosat Ajak XL, Tri, Smartfren Lawan Dominasi Telkomsel. Detik [online]. Tersedia: <http://www.detik.com> [1 September 2016]
- [3] Annual Report Telkomsel. (2016). *Annual Report Telkomsel 2015*. [online]. [http://www.telkomsel.com/media/upload/annualreport/AR\\_TSEL2015.pdf](http://www.telkomsel.com/media/upload/annualreport/AR_TSEL2015.pdf) [1 September 2016]
- [4] Annual Report Indosat. (2016). *Annual Report Indosat 2015*. [online]. [http://assets.indosatooredoo.com/Assets/Upload/PDF/Laporan%20Tahunan/Eng/INDOSAT%20AR 2015\\_ENG\\_FA.pdf](http://assets.indosatooredoo.com/Assets/Upload/PDF/Laporan%20Tahunan/Eng/INDOSAT%20AR 2015_ENG_FA.pdf) [1 September 2016]
- [5] Annual Report XL. (2016). *Annual Report XL 2015*. [online]. <http://www.xl.co.id/ss/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1364678234368&ssbinary=true> [1 September 2016]
- [6] Annual Report XL. (2015). *Annual Report XL 2014*. [online]. <http://www.xl.co.id/ss/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1364677191366&ssbinary=true> [1 September 2016]
- [7] Media Centre Tri. (2016, 2 Januari). *New Year 2016: Tri Successfully Delivered 2<sup>nd</sup> Biggest Data Traffic in Indonesia* [online]. Tersedia: <http://www.tri.co.id> [1 September 2016]
- [8] Indra. (2015, 10 April). Diam-Diam Tri Sudah Punya 50 Juta Pelanggan [online]. Tersedia: <http://www.selular.id> [1 September 2016]
- [9] DN. (2016, 30 Maret). Miliki 55,5 juta Pelanggan, Tri: Ini Bukan Pelanggan Bodong [online]. Tersedia: <http://www.indotelko.com> [1 September 2016]
- [10] Noor, A.R. (2014, 5 Juni). 15% Nomor Seluler di Indonesia Hangus. Detik [online]. Tersedia: <http://www.detik.com> [1 September 2016]
- [11] Garrett, J. J. (2006). Customer Loyalty and the Elements of User Experience. *Design Management Review*, 17 No.1(617), 35-39. Retrieved from Google Scholars Journal Database.
- [12] Kim, H. K., Park, J., Han, S. H., Cho, Y., and Park, W. (2013). Developing elements of user experience for mobile phones and services: Survey, interview, and observation approaches. *Human Factors and Ergonomics in Manufacturing*, 23(4), 279-293. Retrieved from ResearchGate Journal Database.
- [13] Sirapraha, J., and Tocquer, G. (2012). Branding and Customer Experience in the Wireless Telecommunication Industry. *International Journal of Trade, Economics, and Finance*, 3(2), 103-108. Retrieved from ResearchGate Journal Database.
- [14] Nguyen, N., and Leblanc, G. (2001). Corporate Image and Corporate Reputation in Customers' Retention Decisions in Services. *Journal of Retailing and Consumer Services*, 8, 227-236. Retrieved from Elsevier Journal Database.
- [15] Andreassen, T. W., and Lindestad, B. (1998). Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management*, 9(1), 7-23. Retrieved from Emerald Insight Journal Database.
- [16] Hassenzahl, M., and Tractinsky, N. (2006). User experience: a research agenda. *Behavior and Information Technology*, 25(2), 91-97. Retrieved from Taylor and Francis Publishing Online Database.
- [17] Sweeney, J. C., and Soutar, G. N. (2001). Consumer Perceived Value: The development of a multiple item scale. *Journal of Retailing*, 77, 203-220. Retrieved from Google Scholars Journal Database.
- [18] Mishra, A., Dash, S. B., and Cyr, D. (2014). Linking User Experience and Consumer based Brand Equity: The Moderating Role of Consumer Expertise and Lifestyle. *Journal of Product and Brand Management*, 23(4/5), 333-348. Retrieved from Emerald Insight Journal Database.
- [19] McKnight, D. H., and Chervany, N. L. (2001). What Trust Means in E-Commerce Customer Relationship: An Interdisciplinary Conceptual Typology. *International Journal of Electronic Commerce*, 6(2), 35-59. Retrieved from Taylor and Francis Publishing Online Database.
- [20] Shin, D. H., and Kim, W. Y. (2008). Forecasting Customer Switching Intention in Mobile Service: An Exploratory Study of Predictive Factors in Mobile Number Portability. *Technological Forecasting and Social Change*, 75, 854-874. Retrieved from Elsevier Journal Database.
- [21] Agyei, P. M., and Kilika, J. M. (2014). Relationship between Corporate Image and Customer Loyalty in the Mobile Telecommunication Market in Kenya. *Management Studies*, 2(5), 299-308. Retrieved from David Publishing Journal Database.
- [22] Tseng, F. M., and Lo, H. Y. (2011). Antecedents of Consumers' Intentions to Upgrade Their Mobile Phones. *Telecommunications Policy*, 35, 74-86. Retrieved from Elsevier Journal Database.

- [23] Rowley, J. (2005). The Four Cs of Customer Loyalty. *Marketing Intelligence and Planning*, 23(6), 574-581. Retrieved from Emerald Insight Journal Database.
- [24] Chuah, H. W., Marimuthu, M., and Ramayah, T. (2014). The Effect of Perceived Value on the Loyalty of Generation Y Mobile Internet Subscribers: A Proposed Conceptual Framework. *Procedia – Social and Behavioral Sciences*, 130, 532-541. Retrieved from Elsevier Journal Database.
- [25] Zikmund, W. G., Babin, B. J., Carr, J. C., and Griffin, M. (2010). *Business Research Methods* (8<sup>th</sup> ed.). Canada: Cengage Learning.
- [26] Indrawati. (2015). *Metode Penelitian Manajemen dan Bisnis: Konvergensi Teknologi Komunikasi dan Informasi*. Bandung: Refika Aditama.
- [27] Abdillah, Willy., dan Hartono, Jogyanto. (2015). *Partial Least Square: Alternatif Structural Equation Modeling dalam Penelitian Bisnis* (1<sup>st</sup> ed.). Yogyakarta: ANDI.
- [28] Sugiyono. (2013). *Metode Penelitian Bisnis*. Bandung: Alfabeta.

