The Role of Digital Customer Experience on Customer Loyalty

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Abstract: The digital era has greatly affected the business focus either in Indonesia or overseas. It creates the effectiveness and simplicity of the business rule then the customers come as the cue of its succeeding. The telecommunications industry as a leader of digital transformation, therefore, tends to point out this new term of customer experience, namely digital customer experience (DCX). In conjunction with customer loyalty, customer experience shares a positive relationship. The management of customer experience tends to improve the relationships with customers and build customer loyalty. But the issue of the digital term does not tackle yet in the role of the customer experience on customer loyalty. So, this paper aims at discovering the relationship between digital customer experience as an indepeendent variable amd customer loyalty as the dependent variables. The study employs 598 active mobile data users of Telkomsel from six cities by using structural equation model to analyze the data.The results define that digital service experience, digital image experience, digital touch point experience, and digital broadband experience are factors determined digital customer experience. In conclusion, either indirect or direct effect of digital customer experience, it has significantly affected the customer loyalty.

1 INTRODUCTION

The development of technology is now increasing rapidly towards the term of digitalization. This digital platform has made people move to a new lifestyle that engages them closer with the digital devices. It affected to the rapid cultural shifting not only in an information delivery but also the transactional business, through such a social media application. This media capabilities lead people to receive the information or transaction faster.

The businesses should tend to be more adaptable with the new culture of people's lifestyle as customers. This strategy has been implemented by one of the telecommunication industry as a leading company in the digital revolution in Indonesia since 2011. It bears the digital products such as digital music, digital game, digital movie, digital money, etc. Nevertheless, those are actually not enough. The revolution should reach every line of effort for efficiencies. As Calhoun (2001) predicted that the benefit is reached for the annual growth or even cost efficiencies about 5 to 10 percent if they well-implemented that digitalization. But, when it fails then Silalahi and Rufaidah (2017) study found the phenomenon of the digital disruption in a year ahead.

Therefore, Silalahi and Rufaidah (2017) released the measurement model for this digital customer experience.

In conjunction with customer loyalty, that is still questionable for customer experience in this digitalization era. Interestingly, customer experience (Kunle Adeosun and Ganiyu, 2012; Chauhan and Manhas, 2014) without digital term shares a positive relationship with their loyalties. So, this study tries to tackle this relationship on digital customer experience to the customer loyalty.

The subsequent explanation of this paper is divided into four sections. It is started from the literature review section, then explaining the methodology research as materials and methods section, after that the results and discussion section and finally the conclusions of the research.

2 LITERATURE REVIEW

2.1 Digital Customer Experience

Digital customer experience is a new construct that still focusing on customer experience (Pine and Gilmore, 1998; Teixeira *et al.,* 2012) or service

experience (Klaus and Maklan, 2012; Dube and Helkkula, 2015).

Pine and Gilmore (1998) argue that the company's products and services must act as a media for customer experience. Companies must be able to give customers exceptional value. According to Teixeira *et al.* (2012), customer experiences are the core and root to gain a continuous competitive advantage. Dube and Helkkula (2015) suggest that service experience sees the concept of indirect experience and direct experience as a piece of the service experience. Klaus and Maklan (2012) consider service experience and customer experience as a unity concept because they perceive that customer's perspective is a base in formulating the right scale for evaluating service experience. On the other side, Klaus (2015) adds that customer experience management is one of a paramount point in general strategy especially for industries engaged in service.

According to Klaus (2015), customer experience is more complex than customer satisfaction and service quality. Through several studies, Klaus (2015) formulated the dimensional of customer experience quality consist of post-purchase experience, brand experience, also service experience. All three customer experiencemeasurements have a positive and significant impact on customers' behavior (Klaus, 2015). Silalahi and Rufaidah (2017) modified the dimensions of the research undertaken by Klaus (2015) to obtain a measurement of digital customer experience. Its measurements of digital customer experience are digital service experience, digital image experience, digital touchpoint experience, and digital broadband experience. Therefore, this study uses dimensions of Silalahi and Rufaidah (2017).

2.2 Customer Loyalty

Customer loyalty is a Combination of intention to re-purchase the service and favorable attitude of customer toward the service and website mobile commerce (Kim et al., 2004 and Lin et al., 2006). According to Bell et al. (2005), Customer loyalty is the level of commitment regarding the association and customer's expectation to hold on. Customer loyalty also defined as a quality of the connection between the retailer's responsibility to the manufacturer and repeat purchasing behavior of the retailer (Sramek, 2008). Sramek et al. (2008) revealed that customer loyalty can be seen from how loyal customers promote the value of companies and shareholders. Salanova (2005) states that customer loyalty is a behavioral construct andrefers to customer

behavior intentions as measured by the likelihood of returning customers to the company. According to Zeithaml et al. (1996) in numerous ways, loyalty might be showed; for example by expressing a preference for a company over others, by proceeding to buy from it, or by expanding business with it in the future.

2.3 Integrated Model

Calhoun (2001) said that successful organizations is the one who focus on improvement of total customer experience and lasting customer loyalty. In fact, according to the previous study, customer experience and customer loyalty as two different construct share a positive relationship. Chauhan and Manhas (2014) said that the objective on managing customer experience is to improve company's relationships with customer, furthermore building customer loyalty. While Kunle Adeosun and Ganiyu (2012) believed that when creating right customer experience with the product/service is the most powerful technique to win brand loyalty. It was previously known that based on a study conducted by Klaus and Maklan (2012), customer experience also has a significant affects customer loyalty.

3 MATERIALS AND METHODS

3.1 Characteristics

This research adapts Aaker et.al (2011)'s study which employs descriptive research and verification as characteristic research. The descriptive research represents the existed variables in this study and shows the phenomenon of the data. While the verification reveals the result of the role of digital customer experience on the customer loyalty.

3.2 Technique Used in the Paper

The study employs quantitative designed approach. Firstly, the researcher developed a structured questionnaire using the 5-point Likert scale. Secondly, it was addressed by personal online message to Telkomsel subscribers randomly in specific areas. The online method aims to reach the far away respondents from the researcher. The third, the data is analyzed using Structural Equation Model (SEM) to examine the model of digital customer experience on customer loyalty. The last step is to evaluate the final model result.

The hypotheses of the study are whether or not the loading factor equal to zero meaning that whether or not digital customer experience determines the customer loyalty (H0: $\gamma = 0$ or H1: $\gamma \neq 0$; which γ represents loading factor/validity coefficient). The process was carried out through LISREL 8.72.

4 RESULTS AND DISCUSSION

This research selected from 645 to 598 respondents as the data sample since the rest of them have the missing information as well as unengaged response. It has adequate for further analysis as passed the requirements of (Boomsma, 1982, 1985; see also Nunnally, 1967; Bentler, 1990; Bentler and Chou, 1987) to obtain the favorable statistical results.

This section reveals the demography of respondents. The gender proportions are almost balance (male 43.65% and female 56.35%) while the age proportion of them has various numbers (age of <17:3.34%; 17-22:47.32%; 23-27:26.59%; 28-32:6.35%; 33-37: 3.18%; 38-42: 5.02%, and $\geq$ 42:8.19%). Most of them are young aged around 17 to 22 years old. Then they are a college/university students (31.44%) and entrepreneurs (22.07%).

The study measures the measurements models that examine the exogenous variable -Digital Customer Experience (DCX)- and endogenous variable -Customer Loyalty (CL)- using path analysis through Confirmatory Factor Analysis (CFA). The result is obtained that for exogenous variables (DCX), it consists of four latent variables with 24 indicator variables while exogenous variables have five indicators.

From the fit indices of the measurement models (Table 1) emerge a conclusion that indicators of exogenous (DCX) variables and endogenous (CL) variables have met the good fit following criteria of the previous study of DCX by Silalahi and Rufaidah (2017) based on criteria of Hooper et.al (2008).

Table 1: Fit indices of measurement models.

A	B	C	D	E	F
CL	5	0.81 – 0.93	1.023	0.870	0.990
DCX	4	0.84 – 0.98	2.522	0.051	0.878
DSERVX	5	0.67 – 0.88	0.663	0.007	1.000
DIMGX	5	0.79 – 0.87	1.030	0.007	1.000
DTCPX	7	0.75 – 0.86	1.616	0.032	0.980
DBRBX	7	0.81 – 0.88	1.298	0.022	0.980

Notes: A: Latent Variable, B: Number of Items, C: Range of Std. Regression, D: chi/df, E: RMSEA, F: GFI.

Then structural model defines the role of DCX on customer loyalty, see Figure 1. It depicts the result of analysis on answering the aim of this research that DCX has as much as 23.40 times on influencing the customer loyalty with the modeling error is 10.06. The DCX has 70.2 percent on defining the customer loyalty while the remaining (29.8 percent) are defined by other reasons which are not stated on this model.
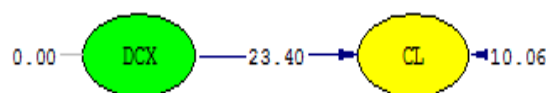

Figure 1: Result of DCX to CL (t-value, an unstandardized estimation).

This model applies five of common criteria on the Goodness of Fit (GOF) Indices to verify the construct of this theoretical model of DCX on CL (see Table 2). The first criteria is $\chi 2/df$ (3.33), the result means that the proposed model does not follow the normed chi-square distribution hence this model has used weighted least square estimator which does not consider the normal distribution. The second is RMSEA (Root Mean Square Error of Approximation). The result reveals the value is in between 0.05 and 0.08, meaning that the model has an adequate fit. The third is the expected cross-validation index (ECVI). It has a good fit since it is less than the ECVI for the saturated model (Ghozali and Fuad, 2008). The next criterion is the Comparative Fit Index (CFI). The result (0.95) is in a good range value. The last one is Goodness-of-Fit Index (GFI), and the result (0.968) reveals a good fit since the GFI value is above 0.90.

Table 2: Goodness of fit model.

Criteria	χ^2/df	RMSEA	ECVI	CFI	GFI
DCX on CL	3.33	0.0625	0.123	0.950	0.968
$R^2 = 70.2\%$					

It consequently bears the justifiable hypotheses result that the role of digital customer experience on customer loyalty has the significantly proper result due to it rejects H0 (H0: $\gamma = 0$ or H1: $\gamma \neq 0$; which γ represents loading factor/validity coefficient). It creates the new role on the experience of digital customers which have a significantly positive contribution in building the adherence of them.

In addition, there is a positive indirect effect of digital customer experience to the Y1 (Behavioral Loyalty) and Y2 (Attitudinal Loyalty), while it shows the negative indirect effect of digital customer experience to the Y3 (Situational Loyalty). It means the digital customers have a good loyalty without seeing any circumstances on making the decision for using it. In other side, their experiences are likely well-interpreted by (1) the image of the product (DIMGX), (2) the service of the product (DSERVX), (3) the touch point experience (DTCPX), and (4) the broadband experience (DBRBX).

This result is quite similar with the previous research when the customer experience is used without digital term. There is a positive relationship between customer experience and customer loyalty as study of Chauhan and Manhas (2014) and Kunle adeosun and Ganiyu. The result also in line with the study conducted by Klaus and Maklan (2012) that customer experience has a significant effects on customer loyalty.

5 CONCLUSIONS

The digitalization has been the main focus of the business strategies, including telecommunication industries. The result of this study found that people –digital customers- tend to have good experiences which are defined by digital image experience, digital service experience, digital touch point experience, and digital broadband experience. Furthermore, the digital customer experience has a positive effect on customer loyalty. It is in line with the indirect effect either behavioral loyalty or attitudinal loyalty but it has a negative loading score on situational loyalty. The difference value has the meaning that a good digital customer experience has the significant positive impact on the customer loyalty regardless of any situations.

REFERENCES

Aaker, D. A., Kumar, V., Leone, Robert P., Day, George S. 2011. *Marketing Research, 10th Edition*. United States of America: John Wileyand Sons, Inc.

Bell, Simon James., Auh, Seigyoung., Smalley, Karen. 2005. Customer Relationship Dynamics: Service Quality and Customer Loyalty in the Context of Varying Levels of Customer Expertise and Switching Costs. *Journal of the Academy of Marketing Science,* 33(2), 169-183.

Bentler, P. M. 1990. Comparative fit indices in structural models. *Psychological Bulletin*, 107, 238-246.

Bentler P. M., Chou C. H. 1987. Practical issues in structural modeling. *Sociological Methods and Research*. 16:78–117.

Boomsma A. 1982. Robustness of LISREL against small sample sizes in factor analysis models. In: Joreskog KG, Wold H, editors. *Systems under indirection observation: Causality, structure, prediction* (Part I) Amsterdam, Netherlands: North Holland. pp. 149–173.

Boomsma A. 1985. Nonconvergence, improper solutions, and starting values in LISREL maximum likelihood estimation. *Psychometrika*. 50:229–242.

Calhoun, J. 2001. Driving Loyalty: By Managing the Total Customer Experience. *Ivey Business Journal*, 65, 6, 69-79. *McKinsey and Company, Strategy and Corporate Finance*.

Chauhan, V., Manhas, D. 2014. Dimensional Analysis of Customer Experience in Civil Aviation Sector. *Journal of Service Research*, 14, 1, 75-98.

Dube, A., Helkkula, A. 2015. Service Experiences beyond the Direct Use: Indirect Customer Use Experiences of Smartphone Apps. *Journal of Service Management*, 26, 2, 224-248.

Ghozali, I., Fuad. 2008. *Structural Equation Modeling: Teori, Konsep, dan Aplikasi Dengan Program LISREL 8.80.* Semarang, Indonesia: Badan Penerbit Universitas Diponegoro.

Hooper, D., Coughlan, J., Mullen, M. 2008. Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.

Kim, Moon-Koo., Park, Myeong 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.

Klaus, P. 2015. *Measuring Customer Experience, How to Develop and Execute the Most Profitable Customer Experience Strategies*. Palgrave Macmillan.

Klaus, P., Maklan, S. 2012. EXQ: A Multiple-Item Scale for Assessing Service Experience. *Journal of Service Management*, 23, 1, 5-33.

Kunle Adeosun, L. P., Ganiyu, R. A. 2012. Experiential Marketing: An Insight into the Mind of the Consumer. *Asian Journal of Business and Management Sciences*, 2, 7, 21-26.

Lin, Hsin-Hui., Wang, Yi-Shun. 2006. An examination of the determinants of customer loyalty in mobile commerce contexts. *Information and Management,* 43, 271–282.

Nunnally JC. 1967. *Psychometric theory*. New York, NY: McGraw-Hill.

Pine, B. J., Gilmore, J. 1998. Welcome to the Experience Economy. *Harvard Business Review*, 78, 1, 79-87.

Salanova, Marisa Salanova., Agut, Sonia., Peiro, Jose Maria. 2005. Linking Organizational Resources and Work Engagement to Employee Performance and Customer Loyalty: The Mediation of Service Climate. *Journal of Applied Psychology*, 90(6), 1217–1227.

Silalahi, S., P. Rufaidah. 2017. Measuring Digital Customer Experience. *International Journal of Economics and Management.* *on peer review process.

Sramek, B. D., Mentzer, J. T., Stank, T. P. 2008. Creating consumer durable retailer customer loyalty through order fulfillment service operations. *Journal of Operations Management,* 26, 781–797.

Teixeira, J., Patrício, L., Nunes, N.J., Nóbrega, L., Fisk, R. P., Constantine, L. 2012. Customer Experience Modeling: From Customer Experience to Service Design. *Journal of Service Management*, 23, 3, 362-376.

Zeithaml, V., Berry, S., Parasuraman, A. 1996. The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31-46.