Effect of service quality and online servicescape toward customer satisfaction and loyalty mediated by perceived value

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Abstract. Application-based transport or online ojek has been main trends in Indonesia. It gives solution to public in rush hours especially in urban area. Even though they are needed but many customers have complaint about their services. The purposes of this study are observing the operator effort to maintain customer satisfaction and loyalty. It evaluated customer response to determine the cause of the satisfaction and loyalty especially for the construct of service quality and online servicescape. In addition, it brings new construct as mediation variable of perceived value to strengthen the relationship among the variables. This study found the new relationship among service quality and online servicescape to strengthen customer satisfaction and loyalty. By collecting the customers from Jakarta region as respondant’s, this study tested their perception about the online service delivery and their effect to the loyalty. Some suggestion and direction also given to expand the research as discussion topic.

1. Introduction

Online-enabled application for bike transport business provides an alternative type of transportation for consumers who want a flexible ride by using two-wheeled vehicles [1]. The business is also well-known as online ojek transport [3]. In developed countries such as Indonesia, as the density and congestion occurred in the city route, the development of the online ojek transport has increasingly marked by growing number of competitors who are trying to rule the wheeled transport business [45]. There are big players such as Gojek, Grab bike, Maxim, Top Jek, Ojek syari, and many others [31]. The online motorcycle-based company continues to struggle with their unique strategy to attract audience and consumers to achieve satisfaction and loyalty [14]. They are trying to provide service by using a different technique to attract consumers. The customer response has been reported by Google Store (Table 1).

Table 1. Application downloaded by the Customer Online Transport User on Application

| No | Company Name | Total Download | Total Overall Rating | Satisfaction Level |
|----|--------------|----------------|----------------------|-------------------|
| 1  | Maxim        | 270,182        | 4.3                  | 17 %              |
| 2  | Go-Jek       | 125,264,158   | 4.1                  | 24 %              |
| 3  | Grab Bike    | 5,94,010      | 4.4                  | 15 %              |
| 4  | Top Jek      | 50,000        | 4.5                  | 6 %               |
| 5  | Ojek Syari (Ojessi)| 82 | 4.2 | 22 % |

Source: Google Play Store, 2019
Table 1 showed total downloads of online transport applications that Gojek has the highest download rate. However, the number does not represent a good customer satisfaction. A report by Ford and Honan [13] showed that Gojek also has a high degree of dissatisfaction compared to other competitors reaching 24% of total users. This raises a question that download rate and satisfaction is not always linear and inversely related. There are many factors that can encourage users to complain such as problematic applications, human error, and technical problems. [10] the problematic applications can be technical issues such as apps opening or transaction paying after using the services. The human error can be occurred from the lack of discipline conducted by driver and privacy secure of data or passengers [20]. The technical side are the lack of equipment, mask and head cover. Such preliminary report of high complaints and has indicated a low level of satisfaction. Although many scholars have recognized that customer satisfaction is an important element in consumer loyalty [2][17][24] there is no common opinion among experts about how to maintain satisfaction and loyalty especially for online-based businesses [50][42]. Thus, more effort needs to be examined to understand the customers response in using the services [41]. In addition, it is necessary to find more accurate indicators to measure their level of satisfaction and loyalty [17][32][39]. These factors raise questions about how far the players can implement their strategies into effective and efficient results. To find the answer, this paper will observe and measure their efforts toward consumer response. Part one contains about the background of bike transport business and how they work with their unique strategy to attract audience. Part two contains theoretical review, service delivery standard which shaped service quality including online servicescape. Part three contains type or research design and testing model proposed in this study. Part four contains analysis and discussion including respondent characteristics, test of structural modeling, and variable relationships. Part five contains conclusion and limitation.

2. Theoretical Review
Various reports and surveys on customer loyalty tend to be directed to the product quality and rarely linked to service quality. This resulted deviated perception and different construct of service delivery. In addition, there is still no common perception among scholars about online servicescape to maintain customer loyalty.

2.1. Service delivery standard
So far, there is a tendency that transport must be based of driver personalization and rarely conveyed with standardized service delivery. This is characterized by many public transportation companies that tend to restrict their fleets and maintain the quality of their services through hiring certain person of drivers [33][7]. However, with the growing usage of online applications [37], there is flexibility for the company to continue to increase the fleet without strict supervision to certain drivers [28]. Thus, there are other factors that cause online transport to be popular with flexible supervision through collaboration between operator and common driver with diverse backgrounds and capabilities. However, such approach of service delivery becomes a challenge and a problem for the operator which result high customer complaint [18][26].

Previous study by Ismiyati, et al., [16] showed that higher number of fleets increasingly create diverse conditions of the vehicle and also their driver capabilities. Similar result are also reported by Maharani, et al., [27] that online-based transportation tends to have flexibility and diverse operations which result various service quality. It also influenced by the situation of servicescape and operator differences that impacted overall service quality [15][48] therefore, the level of user complaints indicated their trust and loyalty for repeated purchasing.

The service quality perceived by the customer represent the usage frequency which important for the operator to manage [25]. Ensuring service quality has been issue faced by operator in order to keep their customers. This dominant factor determines the customers decision in continuing to use the online transport services. In addition, satisfied consumers will tend to repeat the actions especially to certain branded services [44].

As competition is increasingly tighter, many operators have shifted into higher efforts in running their business processes. However, given the growing number of customers, there is various issues customer expectations and the perception of values regarding consumer expectations [43]. In addition,
there is a tendency that the drivers are not trained well which impact on the quality of services and ultimately customer value to loyalty and long-term satisfaction [19]. Companies with such difficulty in managing the service delivery will have low loyalty level.

Thus, doing research on companies to determine the causes of customer satisfaction and loyalty are very important [17]. However, loyalty and satisfaction are debated by many scholars to be interconnected and can be linked by consumer value [50][12]. They are found to be higher when the servicescape is involved [45] in addition, the loyalty can be attributed to service quality. The specifications and standardization for service quality become important for predicting the consumer satisfaction constructs. It also questioned that a good service quality specification can impact to consumers loyalty. Therefore, we propose the relationship between service delivery and customer loyalty.

2.2. Service quality and customer satisfaction

In service quality studies, many scholars [9][29][30] reported that consumers can evaluate their consumption experiences through certain attributes evaluation. In this case, service quality has significant effect on their satisfaction and loyalty [30]. However, service quality developed into broader view when it is involving online service delivery into quality of e-service and can be associated with other key outcomes [4]. Therefore, it is important to understand the strength of the relationship between the different components with overall quality of service quality [29]. As overall quality of service quality and its outcomes can be interrelated, it need to measure the perceived value as different factors that can moderate the association. Based on the proposition, it is proposed that service quality and customer satisfaction will be interlinked.

H1: service quality has impact on customer satisfaction

2.3. Online servicescape toward customer satisfaction

Servicescape is the physical environment in which services are delivered to consumers [11], in fact, there is debatable definition about the term of servicescape which only refers to the physical environment than online or electronic servicescape for services given through online channel [46][50]. One of the causes of the importance of the conceptual online servicescape is the association of consumer and the media the customer must use to get their needs [47]. The better the servicescape the consumers feel more comfortable and happier in consuming the services. According to Laudon and Traver, [22] the online environment is different than physical environment especially in online transaction. Online servicescape must be capable of influencing behaviour and creating images, especially in service-based businesses such as online bike transport [21]. In this context, the online servicescape is based of application in making the order, payment and service delivery is given by driver capability. Therefore, the servicescape must be directed to create and encourage customer experience, satisfaction loyalty. According to Kühn, et al., [21] online servicescape are online environment that arise during the process of channelling services to consumers who download applications for the purposes of ordering the product and paying the bill. In addition, the servicescape also represent the user complain about the system especially in the ojek-based application and their convenience to the application.

H2: online servicescape has impact on customer satisfaction

2.4. Customer satisfaction and loyalty

In previous studies, [17][30][39] loyalty sometimes studied as separated construct from satisfaction. In fact, Customer satisfaction will be the key to success especially when the technology readiness is prepared [34]. Furthermore, [38] finds that the variable satisfaction directly affects loyalty, but indirectly affects loyalty when through e-WoM variables, Wilson and Persson, [49] loyal customers have a lower tendency to switch (switch brands) and become strong word of mouth. Leonidou, et al., [23] states that the key to competitive advantage in competitive situations is the company's ability to increase customer loyalty. Customer loyalty will be the key to success, not just in the short term but on a sustainable competitive edge. Research Shin and Lee, [40] also found that technology readiness variables have a greater influence on loyalty than satisfaction and e-WoM. Therefore, we propose that satisfied customer will influence the customer loyalty in online transport business.
H1: customer satisfaction has impact on customer loyalty

2.5. Perceived value as a mediator of quality and customer loyalty
Satisfaction is developed from user experience during consumption of a product or service. Satisfaction which formed sustainably will shape customer loyalty [5]. However, there are still disagreements among scholars, for example Jahanshani, et al., [17] Stated that satisfaction has a positive association with loyalty but does not direct result from loyalty to the same degree. It encourages scholars to re-examine the position toward customer loyalty. It is also supported by Scherer, et al., [35] that satisfaction must be measured in long-term to measure the effect toward customer loyalty and expectation. To gain certain expectation, customer set their subjective value that can be perceived as customer value after they expect the product as they need. the difference between the benefits obtained with the sacrifices incurred to get certain product or service is called perceived value which sometimes has diverse and various range among customer. In other words, customer perceived value will mediate the customer satisfaction and loyalty.

H4: there is influence between customer satisfaction to customer loyalty mediated by perceived value.

3. Research Methodology
3.1. Type of Research Design
This study is field research by observing object directly to obtain relevant data. The data is measured through an instrument by taking the study sample is users/customers who use the online ojek transport in Jakarta. This study measures the relationship of variables, eg, Service delivery, service quality, customer satisfaction, online servicescape, perceived value, and customer loyalty. To find the information about the construct, the respondents are asked about their usage of the application at least 4x in a month. Based on the sample criteria it collected a total of 325 respondents. As the study result is presented as numbers, it will use statistical testing. The data are processed through data collection, interpretation, and estimation. Their demographic information is given in Table 2.

3.2. Proposes testing model
The relationship between variables are tested directly through multiple indicators to measure and determine their independent and dependent direction. The results of structural model test are chi-square, degree of freedom, CFI, GFI and AGFI values. the model testing using SEM approach is done gradually. If the model has not been obtained correctly (fit), then the proposed model should be revised. Finally, the analysis of data processing result at full stage of SEM model is done by doing conformity test and statistic test.

4. Analysis and Discussion
4.1. Respondent characteristics
This part contains about respondent’s description and their demographic background. The summary of respondent’s demographics is given in Table 2.

| Respondents by gender | Total | %
|-----------------------|-------|-------|
| Men                   | 151   | 46.5% |
| Women                 | 174   | 53.5% |

| Respondents by ojek online | Total | %
|-----------------------------|-------|-------|
| Go-Jek                      | 98    | 30.2% |
| Grab Bike                   | 87    | 26.8% |
| Uber                        | 65    | 20%   |
| Top Jek                     | 53    | 16.3% |
| Ojek Syari                  | 22    | 6.7%  |

| Respondents by age | Total | %
|--------------------|-------|-------|

Table 2. respondent characteristics
Based on the above table, there are 151 males (46.5%) and 174 females (53.5%) who using online motorbike transport which collected in this study. mostly used Go-Jek 98 people (30.2%), Grab Bike 87 people (26.8%), 65 people (20%), 53 Ojek Syari 22 people (6.7%). The respondents age are dominated by 30-35 years old (28%), 25-30 years old (26.2%), 35-40 years old (23.4%), and age> 50 years 8 people (2.5%) (Table 2).Respondents have various education background ranging from high school 22.5% to strata title 29.8% with the highest education is master degree of 66 respondents (20.3%). Their income level is distributed almost evenly which grouped into three category eg, below 1 million, between 1.5 - 2.5 million and higher than 3 million Rupiah. The highest income of 3.5-5 million Rupiah is97 respondents (29.8%) and the lowest group has income> 5 Million Rupiah with 69 respondents (21.2%).

4.2 Test of Structural Modelling
The structural model is the relationship between latent variables. The variables can impact on the model directly and require multiple indicators to measure them. The result of structural model test is given in Figure 1.

Figure 1. Structural Test Model
The structural model in Figure 1 shows chi-square value of 346,916 and a degree of freedom of 154. In Table 3, it shows that the values of CMIN / DF, RMSEA and TLI match the criteria. Although CFI, GFI and AGFI values are marginal, according to Brown, [6] CFI, GFI, and AGFI values are close to the recommended values, therefore the model is still feasible to use in this study. This means the model is fit enough and feasible to use.

The model test using SEM approach is done gradually. If the model has not been obtained correctly (fit), then the proposed model should be revised. The revisions of the SEM model is to fix the inability of the developed model to produce a unique estimate. If the problems still arise in the analysis, then the established structural model needs to be revised to form a new model. To determine that the SEM approach is suitable, it conducted conformity test and statistic test which jointly shaped the test results of goodness-of-fit approach (Table 4).

### Table 3. Test Results of Goodness-of-fit

| No | Index          | Critical Value | Results      | Model Evaluation |
|----|----------------|----------------|--------------|------------------|
| 1  | Chi-Square     | Near zero      | 346.916/154=2.25 | Not fit          |
| 2  | Probability level | ≥ 0,05      | 0,000         | Not fit          |
| 3  | CMIN/DF       | ≤5.00          | 2.127         | Fit              |
| 4  | CFI           | ≥ 0,90         | .937          | Fit              |
| 5  | RMSEA         | ≤ 0,08         | .078          | Fit              |
| 6  | TLI           | ≥ 0,90         | .940          | Fit              |
| 7  | GFI           | ≥ 0,90         | .912          | Fit              |
| 8  | AGFI          | ≥ 0,90         | .806          | Marginal         |

Source: Data Processed from Research Results 2017

Based on the test results, the GFI score shows a position of marginal results for our model. Although GFI is considered marginal but it still able to fulfill the requirement, since the test result provide two marginal values tests, therefore, the proposed model is considered as Good enough and acceptable to be used in this study. Secondly, we will estimate whether our model is sensitive to sample size. To do so, we use two type of testing, eg, CMIN / DF value and RMSEA. The results indicate that the model used is acceptable. The CMIN / DF value of 2,127, CFI of 0.937, RMSEA of 0.078 and TLI of 0.940 indicates a good structural equation model (fit). It found that the chi-square measurement index, probability level, GFI1 and AGFI are in marginal condition. From several model feasibility tests; the model is feasible since it has at least one of feasibility indication. In this study, the Chi-Square is 346,916 as indicator of model fitness and our model is sensitive to sample size.

### Table 4. SEM Test Results

| Variables / relations         | Standardised coefficients | C.R.  |
|------------------------------|---------------------------|-------|
| E-service quality            |                           |       |
| Tangibles                    | 0.53                      | 4.260 |
| Reliability                  | 0.57                      | 3.462 |
| Responsiveness               | 0.64                      | 3.303 |
| Assurance                    | 0.62                      | 2.490 |
| Empathy                      | 0.58                      | 2.449 |
| online servicescape          |                           |       |
| visit sites                  | 0.74                      | 5.533 |
| Websites desain              | 0.79                      | 5.575 |
| App                          | 0.67                      | 4.449 |
| perceived value              |                           |       |
| Quality/performance          | 0.63                      | 5.624 |
| Price/value for money        | 0.78                      | 5.740 |
| Emotional value              | 0.73                      | 5.629 |
| customer satisfaction        |                           |       |
| Repeat purchase              | 0.81                      | 6.068 |
| Word of Mouth                | 0.75                      | 5.706 |
| Period of Usage              | 0.79                      | 5.730 |
| Price Tolerance              | 0.83                      | 5.925 |
| Choice Reduction Behaviour   | 0.79                      | 5.748 |
Customer loyalty & repeat purchase 0.69 & 5.533 
Refers other 0.64 & 5.462 
Across product 0.61 & 5.423 
Immunity 0.59 & 4.897

Paths:
E-service quality - Customer satisfaction 0.51 & 6.645 
online servicescape - Customer satisfaction 0.45 & 5.793 
Customer loyalty - Customer satisfaction 0.48 & 5.826

Source: SEM Analysis Results 2019

As this study test the perception affect the relationship between customer satisfaction and customer loyalty, it is necessary to use cluster analysis to divide customer satisfaction and value perception into high and low group values. The first group contains low value with low customer satisfaction (n = 34) and second group is low value with high customer satisfaction (n = 89). the next step is comparing the high value group with low satisfaction (n = 54) on the high value with high customer satisfaction (n = 148). The comparison result is given in Table 5.

Table 5. Anova Analysis

| Low perceived value | High perceived value | Duncan Schiffer post-hoc |
|---------------------|----------------------|--------------------------|
| Low (n=34) | Height (n=89) | Low (n=54) | Height (n=148) |
| Customer satisfaction | 3.341 | 4.489 | 4.343 | 6.345 | (1,2,3,4) | 1, 2, 3, 4 |

Notes: p, 0.001. Duncan (1,2,3,4) reveals the 4 groups are significantly different from each other.

Analysis of ANOVA and Schiffer post-hoc tests is illustrated in Table 4 with F and p values are all significant (F = 123.185, p = 0.047). the results of Duncan and post-hoc Schiffer tests showed the four groups have significant differences and customer loyalty from the fourth group as the highest category. Customer loyalty from the third group is higher than the second group, and customer loyalty from the first group is the lowest.

Based on table 5, our study result can capture the perceived value is inversely proportional to customer satisfaction and consumer loyalty. based on test results it found that perceived customer value has a significant moderate effect on the relationship between customer satisfaction and customer loyalty therefore Hypothesis H4 is accepted.

4.3. Hypothesis Testing Analysis
To analyse the service quality and online servicescape relationship, it is estimated the goodness of fit of structural model as structural model relationship (hypothesis testing) as shown in Figure 2. The relationship among the constructs in the hypothesis are estimated by value of regression weights. Chatterjee and Hadi, [8] to analyse the constructs relationship, eg, service quality and online servicescape on customer satisfaction and loyalty, it also added moderation construct of perceived value on respondents who used the application-based transport (Table 4).

4.4. Relationship of service quality and customer satisfaction
The analysis result showed a significant influence between service quality with customer satisfaction (β = 0.516), the relationship is positive. therefore, H1 is accepted. It means that Gojek, Uber and Grab bike are proven to grow as market leaders as they have high service quality and customer satisfaction. This result is similar to other study by Liat et al., [24] that service quality is the nature of product performance as a major part of operator strategy to achieve sustainable advantage to continue to grow as market leader. Shi et al., [39] added that service quality is a factor that determines the sustainable ability of the
operator in providing quality services to consumers. It is also a company strategy to achieve success in competitive environment [15]. It is similar to our study that the transport operators must improve their strategy through optimization of their service quality dimensions, e.g., tangibility, reliability, responsiveness, assurance, empathy.

4.5. Relationship of online servicescape toward customer satisfaction

For the second hypothesis H2, it tested the influence of online servicescape on customer satisfaction. The analysis results of the study gained a significant influence between online servicescape to customer satisfaction based on the downloaded application with value (β = 0.459). Gojek, Uber and Grab bike have equal values for the relationship of online servicescape toward customer satisfaction. It showed that the hypothesis is accepted and indicated a positive influence of online servicescape toward customer satisfaction.

The existence of the servicescape element on the online motorcycle taxi service has driven the operators to improve their strategy through loyalty program [15][11], discount program and cheapest fare or price rewards. The operators as provider of online transportation services have improve their role to survive and compete with other operators. Their strategy to nurture customer satisfaction and loyalty have create difference customer respondent especially after they implement servicescape strategy [50]. The operator who measure their customer adaptation to the servicescape will likely to keep their customer even though they must adapt their servicescape a constantly changing market [15][11][21]. In this study, online servicescape is found to be manifestation of the service that affect consumer behaviour and responsiveness to services delivery. The use of creative interaction design in the application can support placement and segmentation strategies to achieve specific consumer market. It is supported by Tan, et al., (2015) that transport operators with adequate servicescape will satisfy consumers. In addition, the design of online servicescape is element that affect the visual element and interaction between the operators with the customers during service delivery.

4.6. Customer satisfaction and consumer loyalty when using ojek-based application

Based on result of research, it is known that customer satisfaction impacting consumer loyalty with value (β = 0,368) and it has positive influence between customer satisfaction with consumer loyalty. The test result showed that the transport operators have equal value especially for Gojek, Uber and Grab bike Therefore, H3 is acceptable. Other study by Hensher, [15] revealed if service quality is below the expectation, customer will discontinue the relationship with the transport operators. Consumers will turn to other transport operators who are better able to understand the customer specific needs and provide better service. The online transport operators which implement loyalty program such as discount and cheapest tickets will maintain their customers loyalty. It is supported by So, et al., [37] that customer satisfaction can be indicated by certain behaviour such as encouraging people for repeat purchase and loyalty promotion program can attract new customers to return.

4.7. Perceived value can moderate the relationship between customer satisfaction and customer loyalty

Our analysis in Table 4 showed that perceived value is inversely proportional to customer satisfaction and consumer loyalty. It is getting stronger when we test the effect to the three big players, e.g., Gojek, Uber and Grab bike. The test result showed that Gojek has higher value for the perceived values to moderate the customer satisfaction and customer loyalty. It has significant moderate effect on the relationship between customer satisfaction and customer loyalty. Since satisfaction is an antecedent variable of loyalty which advocated in the marketing literature mainstream, the perceived value is the component of trusts and it can be expanded to another construct such as customer value. Other study also examined that other moderator variables can be implemented to strengthen the relationship between satisfaction and loyalty, such as consumer characteristics [17][38][5].

5. Conclusion and limitation

This study shows that user's perception about online transport services has some constructs which important to create customer satisfaction and loyalty. Service quality and online servicescape are strong drivers in customer decisions to use applications-based transport service. Based on the results and
discussion that has been done, this research has found a new relationship between service quality and online servicescape on customer satisfaction and loyalty especially for the three big players such as Gojek, Uber and Grab bike.

Future research needs to add this relationship in a new context by adding new cultural environment influences, driver friendliness, customer perceptions of security to destinations so that future research can further contribute to improving the services of this service-based motorcycle taxi service.

This study has the following limitations. First, the data was collected in this study online which sometimes the respondents does not take care about the accuracy and it enable some respondents to cheat in filling out the questionnaire. Therefore, scientists need to be cautious in generalizing the results of this study, which may differ among different virtual communities. Secondly, since this study sample is limited in Jakarta, these findings may not apply to other regions. This study can be expanded empirically to confirms other different national cultures to observe online attitudes and behaviour to other area and region.

6. References
[1] Alford, S. E., & Ferriss, S. (2016). An Alternative History of Bicycles and Motorcycles: Two-wheeled Transportation and Material Culture. London: Rowman & Littlefield.
[2] Ali, F., Kim, W. G., Li, J., & Jeon, H. M. (2016). Make it delightful: Customers’ experience, satisfaction, and loyalty in Malaysian theme parks. Journal of Destination Marketing & Management, 7, 1–11. https://doi.org/10.1016/j.jdmm.2016.05.003
[3] Anindhita, W., Arisanty, M., & Rahmawati, D. (2016, November). Analisis Penerapan Teknologi Komunikasi Tepat Guna Pada Bisnis Transportasi Ojek Online (Studi pada Bisnis Go-Jek dan GrabBike dalam Penggunaan Teknologi Komunikasi Tepat Guna untuk Mengembangkan Bisnis Transportasi). In Proceedings of Indonesian Conference on Management, Politics, Accountancy and Communication (INDOCOMPAC).
[4] Blut, M., Chowdhry, N., Mittal, V., & Brock, C. (2015). E-service quality: A meta-analytic review. Journal of Retailing, 91(4), 679-700. https://doi.org/10.1016/j.jretai.2015.05.004
[5] Bowen, J. T., & Chen McCain, S. L. (2015). Transitioning loyalty programs: A commentary on “the relationship between customer loyalty and customer satisfaction”. International Journal of Contemporary Hospitality Management, 27(3), 415-430. https://doi.org/10.1108/IJCHM-07-2014-0368
[6] Brown, T. A. (2014). Confirmatory factor analysis for applied research. Guilford Publications.
[7] Burks, S. V., Cowgill, B., Hoffman, M., & Housman, M. (2015). The value of hiring through employee referrals. The Quarterly Journal of Economics, 130(2), 805-839. https://doi.org/10.1093/qje/qjv010
[8] Chatterjee, S., & Hadi, A. S. (2015). Regression analysis by example. John Wiley & Sons.
[9] Dabholkar, P. A. (2015). How to improve perceived service quality by increasing customer participation. In Proceedings of the 1990 academy of marketing science (AMS) annual conference (pp. 483-487). Springer, Cham.
[10] de Reuver, M., Haaker, T., Nikayin, F., & Kosman, R. (2015, October). Designing Viable Multi-Sided Data Platforms: The Case of Context-Aware Mobile Travel Applications. In Conference on e-Business, e-Services and e-Society (pp. 354-365). Springer International Publishing.
[11] Dong, P., & Siu, N. Y. M. (2013). Servicescape elements, customer predispositions, and service experience: The case of theme park visitors. Tourism Management, 36, 541-551. https://doi.org/10.1016/j.tourman.2012.09.004
[12] Eid, R. (2015). Integrating Muslim customer perceived value, satisfaction, loyalty and retention in the tourism industry: An empirical study. International Journal of Tourism Research, 17(3), 249-260. https://doi.org/10.1002/jtr.1982
[13] Ford, M., & Honan, V. (2017). 15 The Go-Jek effect. Digital Indonesia: Connectivity and Divergence, 275.
[14] Hanks, L., Line, N., & Kim, W. G. W. (2017). The impact of social servicescape, density, and restaurant type on perceptions of interpersonal service quality. International Journal of Hospitality Management, 61, 35-44. https://doi.org/10.1016/j.ijhm.2016.10.009
[15] Ismiyati, I., Firdaus, M., & Arubusman, D. A. (2017). Manajemen Pemeliharaan Bus Transjakarta Dalam Mencapai Standar Pelayanan Minimum. Jurnal Manajemen Transportasi dan Logistik, 3(2), 185-203. https://doi.org/10.25292/j.mtl.v3i2.92

[16] Jahanshani, A. A., Hajijadeh, G. M. A., Mirdhamadi, S. A., Nawaser, K., & Khaksar, S. M. S. (2011). Study the effects of customer service and product quality on customer satisfaction and loyalty. International Journal of Humanities and Social Science, 1(7), 253 – 260. Retrieved from http://www.ijhssnet.com/journals/Vol_1_No_7_[Special_Issue_June_2011]/33.pdf

[17] Joshi, S., Bhatia, S., Raikar, K., & Pall, H. (2017). Customer experience and associated customer behaviour in end user devices and technologies (smartphones, mobile internet, mobile financial services). International Journal of High-Performance Computing and Networking, 10(1-2), 118-126. https://doi.org/10.1504/IJHPCN.2017.083209

[18] Khan, M. M., & Fasih, M. (2014). Impact of Service Quality on Customer Satisfaction and Customer Loyalty: Evidence from Banking Sector. Pakistan Journal of Commerce & Social Sciences, 8(2), 331 – 354. Retrieved from http://www.ijhssnet.com/journals/Vol._1_No._7_[Special_Issue_June_2011]/33.pdf

[19] Kitchin, R. (2016). Getting smarter about smart cities: Improving data privacy and data security.

[20] Kühn, S. W., Spies, H., & Petzer, D. J. (2015). Online site/woe dimensions as predictors of website trust in the South African domestic airline industry. Southern African Business Review, 19(1), 44-71. Retrieved from https://www.sabinet.co.za/content/view/116950/106518

[21] Laudon, K. C., & Traver, C. G. (2013). E-commerce. Pearson.

[22] Leonidou, L. C., Leonidou, C. N., Fotiadis, T. A., & Zeriti, A. (2013). Resources and capabilities as drivers of hotel environmental marketing strategy: Implications for competitive advantage and performance. Tourism Management, 35, 94-110. https://doi.org/10.1016/j.tourman.2012.06.003

[23] Liat, C. B., Mansori, S., & Huei, C. T. (2014). The associations between service quality, corporate image, customer satisfaction, and loyalty: Evidence from the Malaysian hotel industry. Journal of Hospitality Marketing & Management, 23(3), 314-326. https://doi.org/10.1080/19368623.2013.796867

[24] Lo, A., Wu, C., & Tsai, H. (2015). The impact of service quality on positive consumption emotions in resort and hotel spa experiences. Journal of Hospitality Marketing & Management, 24(2), 155-179. https://doi.org/10.1080/19368623.2014.885872

[25] Lou, Q., Zhang, S. Z., & Song, W. W. (2015, November). Combination of Evaluation Methods for Assessing the Quality of Service for Express Delivery Industry. In International Conference on Web Information Systems Engineering (pp. 414-425). Springer, Cham.

[26] Maharani, M., Chan, A., & Tresna, P. W. (2017, June). COMPARISON OF USER EXPERIENCE ON GO-JEK AND GRAB MOBILE APPS (A STUDY ON PT. GO-JEK AND PT. GRAB INDONESIA CONSUMERS IN DKI JAKARTA). In The 3rd PIABC (Parahyangan International Accounting and Business Conference.

[27] Mohd-Any, A. A., Mahdzan, N. S., & Valinejad, H. (2016). Young adults' perceptions of online service quality. International Journal of Electronic Marketing and Retailing, 7(2), 91-114. https://doi.org/10.1504/IJEMR.2016.077115

[28] Mok, C., Sparks, B., & Kadampully, J. (2013). Service quality management in hospitality, tourism, and leisure. Routledge.

[29] Orel, F. D., & Kara, A. (2014). Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market. Journal of Retailing and Consumer Services, 21(2), 118-129. https://doi.org/10.1016/j.jretconser.2013.07.002

[30] Pangestu, M., & Dewi, G. (2017). Indonesia and the digital economy: Creative destruction, opportunities and challenges. In E. Jurriens & R. Tapsell (Eds.), Digital Indonesia: Connectivity and Divergence (pp. 227-255). ISEAS–Yusof Ishak Institute.

[31] Picón, A., Castro, I., & Roldán, J. L. (2014). The relationship between satisfaction and loyalty: A mediador analysis. Journal of Business Research, 67(5), 746-751. https://doi.org/10.1016/j.jbusres.2013.11.038

[32] Rayle, L., Shaheen, S., Chan, N., Dai, D., & Cervero, R. (2014). App-based, on-demand ride services: Comparing taxi and ride sourcing trips and user characteristics in San Francisco
[33] Rojas-Méndez, J. I., Rojas-Méndez, J. I., Parasuraman, A., Parasuraman, A., Papadopoulos, N., & Papadopoulos, N. (2017). Demographics, attitudes, and technology readiness: A cross-cultural analysis and model validation. Marketing Intelligence & Planning, 35(1), 18-39. https://doi.org/10.1108/MIP-08-2015-0163

[34] Scherer, A., Wünderlich, N. V., & Von Wangenheim, F. (2015). The Value of Self-Service: Long-Term Effects of Technology-Based Self-Service Usage on Customer Retention. MIS Quarterly, 39(1). https://doi.org/10.25300/MISQ/2015/39.1.08

[35] Scott, D. M. (2015). The new rules of marketing and PR: How to use social media, online video, mobile applications, blogs, news releases, and viral marketing to reach buyers directly. John Wiley & Sons.

[36] Setiawan, P. Y., Troena, E. A., & Armanu, N. (2014). The Effect of e-WOM on Destination Image, Satisfaction and Loyalty. International Journal of Business and Management Invention, 3(1), 22-29. Retrieved from https://www.ijbm.org/papers/Vol3(1)/Version-2/C031202209.pdf

[37] Shi, Y., Prentice, C., & He, W. (2014). Linking service quality, customer satisfaction and loyalty in casinos, does membership matter? International Journal of Hospitality Management, 40, 81-91. https://doi.org/10.1016/j.ijhm.2014.03.013

[38] Shin, S., & Lee, W.- jun. (2014). The Effects Of Technology Readiness And Technology Acceptance On Nfc Mobile Payment Services In Korea. Journal of Applied Business Research (JABR), 30(6), 1615-1626. https://doi.org/10.19030/jabr.v30i6.8873

[39] Sianò, P. (2014). Demand response and smart grids—A survey. Renewable and Sustainable Energy Reviews, 30, 461-478. https://doi.org/10.1016/j.rser.2013.10.022

[40] Svensson, D., & Tran, M. (2014). Online Loyalty Program & Type Identification: Empirical study concerning Swedish online based loyalty programs & type identification.

[41] Tseng, S. C., & Hung, S. W. (2013). A framework identifying the gaps between customers’ expectations and their perceptions in green products. Journal of Cleaner Production, 59, 174-184. https://doi.org/10.1016/j.jclepro.2013.06.050

[42] Tuškej, U., Golob, U., & Podnar, K. (2013). The role of consumer–brand identification in building brand relationships. Journal of business research, 66(1), 53-59.

[43] Wachira, L. M. (2014). Integrating Motorcycle Transport in the Urban Transportation Planning in Nairobi County: Case Study Of Thika Super Highway

[44] Waite, K., & Rowley, J. (2014). E-servicescapes in online banking. The Routledge Companion to Financial Services Marketing, 346.

[45] Wakefield, K. L., Wakefield, K. L., Blodgett, J., & Blodgett, J. (2016). Retrospective: The importance of servicescapes in leisure service settings. Journal of Services Marketing, 30(7), 686-691. https://doi.org/10.1108/JSM-08-2016-0291

[46] Wei, Y. P., & Lin, S. (2015). Factors impacting trade and public visitors’ satisfaction in food-related exhibitions in Taiwan. Journal of Quality Assurance in Hospitality & Tourism, 16(3), 283-302. https://doi.org/10.1080/1528008X.2015.1016590

[47] Wilson, A., & Persson, N. (2017). The Interplay Between Brand Loyalty and Brand Satisfaction: A qualitative study of consumers in the clothing industry (Dissertation). Retrieved from http://urn.kb.se.resolve?urn=urn:nbn:se:uu:diva-315714

[48] Wu, L. (2013). The antecedents of customer satisfaction and its link to complaint intentions in online shopping: An integration of justice, technology, and trust. International Journal of Information Management, 33(1), 166-176. https://doi.org/10.1016/j.ijinfomgt.2012.09.001

[49] Wu, W. Y., Quyen, P. T. P., & Rivas, A. A. A. (2016). How e-servicescapes affect customer online shopping intention: the moderating effects of gender and online purchasing experience. Information Systems and e-Business Management, 16(2), 477. https://doi.org/10.1007/s10257-018-0370-6

[50] Xu, C., Peak, D., & Prybutok, V. (2015). A customer value, satisfaction, and loyalty perspective of mobile application recommendation. Decision Support Systems, 79, 171-183. https://doi.org/10.1016/j.dss.2015