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How Does Service Affect the Usage of Transportation in Indonesia: A Study Between Gojek, Grab, and Blue Bird Taxi

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Abstract. This paper examines the service marketing between three-most-popular private transportation in Indonesia which are Gojek, Grab and Blue Bird taxi. Not only will this paper discuss on the matter of service that performed by each company but also analyzed the positive outcomes and opinions about steps that needed to be taken immediately by each company. A comparison data will be performed to compare the service outcome from the customers which gotten from the primary data. The primary data contains of questionnaires that were distributed to the customers for each company. Needed to be taken into the account for each company that service marketing is one of the leading factors on how the brand image and performance of the company will be judged.

Keywords: Gojek, Grab, Blue Bird Taxi, Service Marketing, Performance, Brand Image

1 Introduction

Republic of Indonesia, or Indonesia, is a country with a population nearing 300 million, making it the world's fourth most populous nation. DKI Jakarta, the capital city, houses approximately 11.63 million residents as of 2025, reflecting a 1.73% increase from 2024, within a land area of 66,152 km², of which 6,977.5 km² is ocean [1], [2]. This immense population density has led Jakarta to become overpopulated, resulting in severe traffic congestion. Despite the government's provision of affordable public transportation, such as the Commuter Line and Bus Trans Jakarta, these measures have not significantly alleviated traffic issues. This is due to the city's rapid population growth and the influx of people from the greater JaBoDeTaBek area, which adds approximately 28 million more residents [1].

Overpopulation in Jakarta exacerbates various urban challenges. Traffic congestion not only hampers daily commuting but also affects the city's economic efficiency and air quality. The city's streets are frequently clogged, causing delays that impact businesses and reduce overall productivity. Increased emissions from vehicles contribute to worsening air quality, which poses health risks to the population.

The inadequacies of public transport further aggravate the situation. Public transportation, while widely used, often struggles to meet demand. For example, during peak hours, commuters experience overcrowded trains and buses, which compromise both comfort and reliability. Many stations are located in centralized areas, making it difficult for residents in suburban or less-developed regions to access them. Moreover, the limited number of vehicles results in long waiting times and inconvenient schedules, deterring potential users. High costs associated with certain modes of public transport, such as taxis, further alienate a significant portion of the population.

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This structural inefficiency creates a growing reliance on alternative methods of transportation. Consequently, private transportation services have emerged as a viable solution to address the mobility gaps left by public infrastructure.

Private transportation services, such as Gojek, Grab, and Blue Bird Taxi, have rapidly gained popularity due to their accessibility and flexibility. These services, accessible through mobile applications, provide a range of options to suit diverse commuter needs, including motorcycle taxis, car rides, and shuttle services. Customers benefit from the ability to book these services instantly, offering a significant advantage over traditional methods. For example, Gojek reported handling 15 million weekly orders, supported by 900,000 active drivers, while facilitating 100 million in-app transactions. Grab, Gojek's primary competitor, shares an equal foothold in Indonesia's ride-hailing market, with each holding approximately 50% of the market share as of January 2023 [4].

Blue Bird Taxi, a long-standing player in the transportation sector, has also adapted to this new landscape by integrating digital solutions. By April 2023, Blue Bird experienced a 72% increase in earnings from its taxi services compared to 2021, highlighting its successful recovery and adaptation in the face of competition and post-pandemic mobility trends.

The rise of these services has provided commuters with efficient and reliable alternatives to public transportation. However, their success also highlights the unmet needs within Jakarta's transportation network. This paper aims to explore the role of private transportation companies in bridging these gaps.

While prior studies have examined urban transportation challenges, few have delved deeply into the comparative analysis of Gojek, Grab, and Blue Bird Taxi, particularly in the context of post-pandemic recovery and digital integration. This study is novel in its focus on evaluating service quality using the RATER model, examining user experiences through servicescape dimensions, and analyzing how these companies interact with existing public transportation systems.

Additionally, Jakarta's transportation challenges serve as a microcosm of broader urban mobility issues faced by developing nations. Insights from this study could inform policies and strategies applicable to other rapidly urbanizing cities in Southeast Asia and beyond.

In particular, the study examines the strategies these companies use to maintain market share, differentiate themselves from competitors, and integrate with existing public transportation systems. A survey-based methodology will be employed, utilizing models such as RATER to measure service quality and servicescape to evaluate user experience. By analyzing customer preferences, satisfaction levels, and expectations, this research seeks to provide actionable insights into optimizing transportation services for a rapidly growing and urbanized population [5].

Republic of Indonesia or can be called as Indonesia is a country that had almost 300 Million people making the country 4th world's populous country [1]. DKI Jakarta or can be shorted as Jakarta, the capital city of Indonesia alone had almost 11 million with width 66,152 km^2 whereas 6,977, 5 km^2 is ocean [1], [2]. Due to those variables resulting Jakarta to became overpopulated and it is common in Jakarta to occur traffic jam although public transportation had already served by the government with lower cost, unfortunately it did not help to lessen up the traffic jam in Jakarta due to the rapid growth in Indonesia and people coming outside of Jakarta, especially within the area of JaBoDeTaBek which owns about 28 million people [1]. Because many people came from outside Jakarta, resulting Jakarta to be one of the most competitive cities in the world as many Jakarta people unable to be employed due to have lower skill and knowledge compared to the people coming from outside Jakarta which added the problem called "unemployment".

Not because the people are lazy to use the public transportation but due to the limitation number of available public transportations had added fraud to Jakarta due to having many large vehicles compared to the small ones, public transportation like Commuter Line and Bus Trans Jakarta successfully lessen the fraud in the road. However, with a developing country like Indonesia which always grows in terms of population, it did not help in accordance of time growth, access to those public transportations are considered to be expensive (with taxi) and complicated, not only because most of the stations only located in the centre area but also some small areas are unable to access the stations.

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Figure 1. Commuter Line to Tanah Abang (Jakarta)[3]

Due to those limitations, some people started to be creative and launch the private transportation that can be accessed from the customers' mobile phone. Those private transportations are called Gojek, Grab, Bluebird Taxi. The transportation can be used either to take the customers to the stations or just take the customers to the final destination of their journey.

Although the presence of those private transportations is new, many people had begun to like it and use it more frequently compared to the public transportation that has been provided by the government at the lowest cost possible. The brief evidence and reason on why people liking using private transportation more compared to public transportation is on the amount of orders each week, stated that there are 15 million orders with 900,000 active drivers and average 100 million online in app transactions with data only gotten from Gojek [4]. Number speaks truth and those number had proven on why people use it more because it's easy and simple.

In this paper in depth discussion and analysis will be deliberated further in this paper. Not only this paper will discuss about how each company of private transportation able to maintain their market share and compete with each other but also how they are able to compete and using the opportunity of the existence of Indonesia's public transportation. A survey was conducted with parameters such as RATER and servicescape [5] to determine the perceived quality of the online transportation services that are available in Indonesia.

2 Literature Review

2.1 Gojek

Gojek is a technology company that is popular in Indonesia. Controlled and managed under PT. Aplikasi Karya Anak Bangsa [6]. The company was founded and established at Jakarta in 2010 by its own founder CEO Nadiem Makarim with Michaelangelo Moran and Kevin Aluwi [7]. Gojek start off in transportation with easy access in mobile phone, however in December 2024, Gojek with more than 100 million downloads [8] had decided to expand globally with focus on more populated countries and brought out their other features inside the app.

Starting off as a bridge between driver and customers, Gojek used the opportunity to start off the business with order taking from the call center with 20 drivers. However, as it grows Gojek started to received invests that reached US$550 million from various corporation [9], [10] making them an official Indonesia's first ever startup company with capital value more than US$ 1 million which at that time Gojek value has reached US$ 1 billion [9], [10]. In January 2018, it was stated that Google Inc had decided to invest to Gojek [11], not long after Google, Astra International invested to Gojek [12], followed by an investment from Djarum Group [13]. With many gains from the cost of capital and investments had made Gojek to rapidly grows even larger and various industry such as entertainment industry with Go-Tix, Food and Beverage Industry with Go-Food, automotive industry with Go Auto, wellness industry with Go-Med, shipment industry with Go-send and Go-box, and many more [6], [14].

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Figure 2: Gojek Logo
Source: (Google Play, 2018)

2.2 Grab

Grab, which was named GrabTaxi before, is technology company based in Singapore that offers features in ordering service from mobile app, much same as Gojek. Grab has made several changes formerly called My Teksi, GrabTaxi and finally Grab, as it founded by Anthony Tan, the youngest children from authorised Nissan distributor in Malaysia. In June 2012 the operation of launching Grab was started, him with his friend, another Harvard graduate Tan Hooi Ling using door-to-door plans, Anthony went to almost every biggest taxi company in hoping to make partnership with him but always met with negative feedback which only resulting him having 30 drivers at that time [15] which grows due to the amount of feedback of Malaysia at that time. Nadiem Karim, CEO of Gojek, credited him to be his inspiration of Gojek in Indonesia which resulting Grab to have expansion in Indonesia due to his friendship with CEO of Gojek.

Figure 3. Grab Company's Logo[16]

With its expansion towards Indonesian market, had become one of the factors of Grab to acquire Uber's operations across Southeast Asia on March 2018 [17]. In 2014 Grab, which the headquarter originally located in Malaysia, moved it headquarter to Singapore and the CEO acquired the Singaporean citizenship as the Grab company constantly grows reaching US$ 1 Billion company value at that time [18]. Grab started to rapidly expanded to the neighbour's countries such as Philippines, Singapore, and Thailand in 2013 [19] and further expansion to Jakarta [20]. From there, Grab had launched several features such as GrabCar; transportation with personal cars [21], GrabBike whereas the transportation is using the motorcycle and had launched its feature in Indonesia and Vietnam by 2015 [22], [23], and many more features.

2.3 Blue Bird Taxi

Among all three companies, Bluebird has been the longest in Indonesia, started off as small company offerings taxi orders in 1972 which founded by Ny. Mutiara Djokosoetono with her two sons, Chandra Suharto dan Purnomo Prawiro under PT. Bluebird Group [24]. With motto to help transportation of Jakarta people, as the company was born just several years after Indonesia's independency from Japanese colonial, Bluebird had born long time ago before Jakarta even called Jakarta at that time.

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Figure 4. Bluebird's Company Logo[24]

Bluebird taxi used its call centre to make order for their taxis which lasted for a while and proven that Bluebird Group acquired one of the largest market shares in this type industry. However, since the birth of online transportation, Bluebird Group had shifted their operation through mobile app booking and partnership with Gojek [25]. Not only Bluebird had launched its app, but also launched online transaction within the app through T-Cash; an online transaction platform through e-money owned by Telkomsel [26], with cashback 20% to persuade more customers to use and install their mobile app [3].

In this paper will be discussed how the three company compete and gained their market share through several variables that affecting the customer satisfaction and the importance weight of each variable in the eyes of Indonesia customers.

2.4 Rater

Customers care most about service quality, because service quality is about the perspective of customers. Customers have high expectations about how the customers are treated and served. Principles of good customer service:

a. Speed
   Responsiveness really impact on customer satisfaction and dissatisfaction [27]. The customers will be satisfied for fast response, but the customers will not be satisfied for slow response.

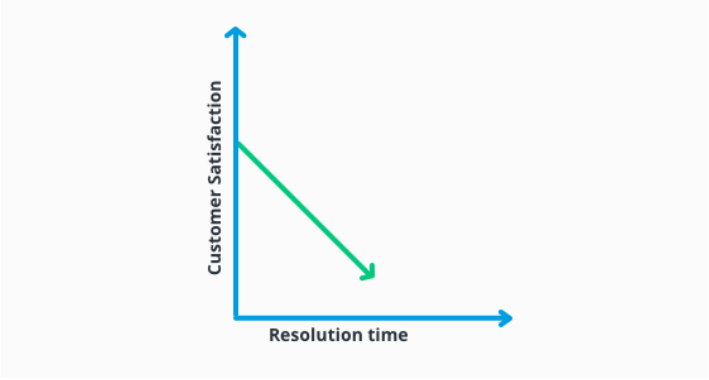

Figure 5. Speed Graph[27]

In order to improve responsiveness, the various type of service speed can be tracked [27]:

1. First response time: the customers receive response very quick, however the customers have been heard
2. Average response time: the customers receive response around 5, 7, 10, and 20 minutes
3. Problem resolution time: still the average time before the issue is resolved
4. First contract resolution ratio: number of issues resolved divided by numbers that requires more responses

The speediness of service has various factors [27]:

1. Contact channel: the media used between the company and the customers is the factor. Email can take longer time because of the traffic. The business phone number and live chat possibly will lighten the traffic on email
2. Employee skills: with the knowledge of the employees, employees do not have to ask to the supervisors anymore about handling issues immediately, the most important is that the customers have been heard

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3. Employees empowerment: some of the employees are given the authority to make decisions. Not all employees, only the best and often involved with customers.

b. Accuracy
Although speed is important, the information provided should be accurate too. Team work is needed to solve heavy issues, training and information systems is needed to raise accuracy, this also let the employees gain more knowledge [27]

c. Transparency
Transparency means being honest whenever the customer is asking like *"why is it taking so long?"*, the question will be thrown when the customers do not know the reason why the customers have to wait, there is no explained waits, by letting them know that there is a process that the employees are working on [27].

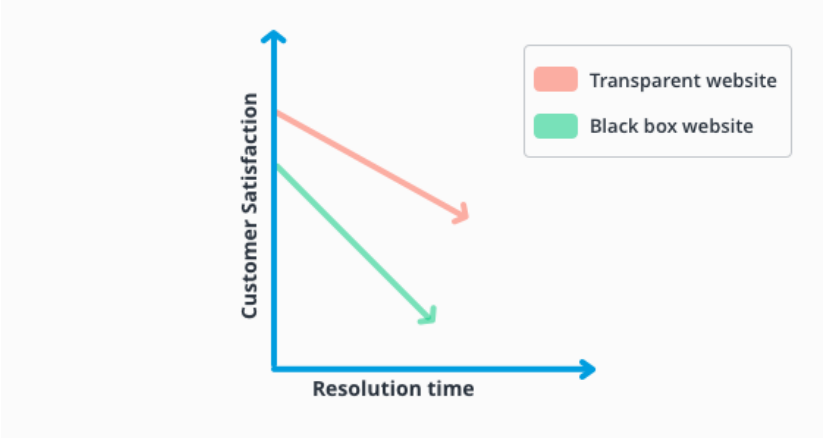

Figure 6. Transparency Graph[27]

There are 5 Dimensions of service quality:

1. Reliability
The ability to be consistent and accurate about the service provided. The service quality should meet the expectation of the customers. The company's effort to provide best service accurately and consistency since beginning as promised. Professionalism, skills and knowledge create satisfying service [28].
2. Assurance
Satisfying service gains trust and confidence from customers. Assurance of service that is given to customers depends on performance and commitment of the service to prove that the company truly efforts to provide best service (convenience, safety, knowledge and skills) to satisfy the customers [29], [30].
3. Tangible
Reliable building, layouts, equipment, technology, uniforms, waiting room, decoration, and other physical facilities are proofs that the company provides best service. Physical appearance really matters to leave best memories. Interesting decoration and design will make guests and employees want to stay longer. For instance, if the business is online, the easiness to navigate the site, how accessible, and the design looks, but if the business is offline, the decoration, aromas, and uniforms [28].
4. Empathy
How companies pay attention to the customers in responding customers in real time refers to empathy. Customer [29]aints, understanding customers without having the customers to ask first, such as offering hands. Empathy in service means there is attention, seriousness, sympathy, understanding, and involvements between service participants [31]
5. Responsiveness
Agility in responsiveness to help and serve the customers will let the customers feel important and cared for. Letting the customers wait for long will leave negative perceptions in service quality. When the customers complain, the customer service should respond quickly, and try to improve the service. Responsive also includes clear explanation, details, and transparency [32]

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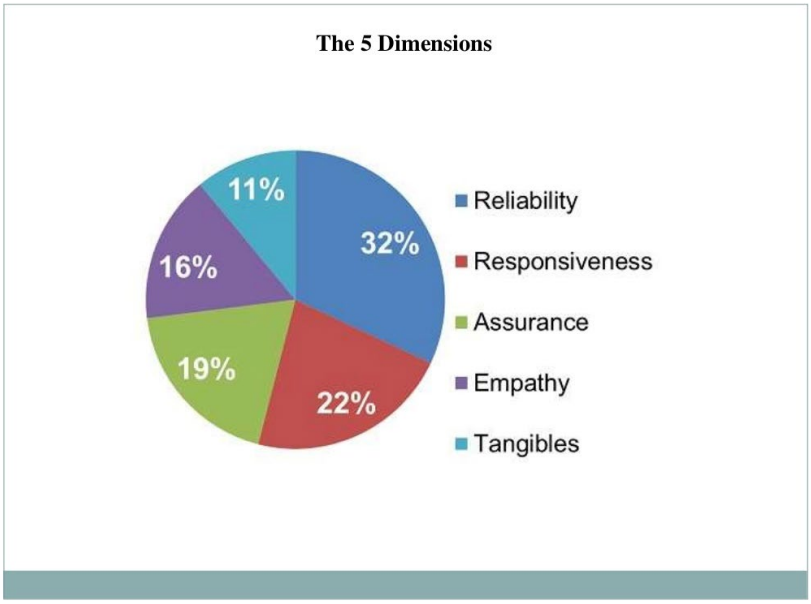

Figure 7. Dimensions of Service Quality[32]

2.5 Importance of Servicescape

As the world enters the age of experience economy, the nature of consumption thus will generate changes, affecting how consumer behavior in the market. Businesses nowadays are shifting their focus on the supply to the demand side which can be related to the psychological aspects of the business [33]. A change that was created by the move of physical service location to Internet or other virtual service processes, in this case application, is the nature of the "servicescape" that are being experience by the customers when experiencing the transaction [34], [5]. Servicescape can be define as the set of tangible and physical cues of environment that represent an organization in which service transaction occurs that has a strong influence on customer behavior and satisfaction [34],[35]. Furthermore, when sales and/or service encounters occur through virtual means, the servicescape may become particularly critical because it is the key result in representing the organization to its customers, thus it is known as virtual servicescape or e-servicescape [34]. Though the dimensions of a typical servicescape compared to an e-servicescape overlap to some degree, both have different parameters in various aspects. This is due to the fact that customers do not encounter services provided by service employees physically but rather electronically. "*As the servicescape is crucial for the service organizations, the e-servicescape (virtual servicescape) is critical for the service providers via the internet*" [36].

The ambient and/or aesthetic conditions, design aspects, search aids and slogans, and functional aspects all comprise the perceived e-servicescape which ultimately determine the customers' perceived e-service quality [36]. In additionally, it can be further assume that the perceived e-servicescape affects the perceived e-service quality of the business. Thus, leading to the conclusion that the perceived e-service quality may affect a customer's intention to use the respective service and in turn, the customer's intention to use will lead to actual usage of the service.

According to the researchers, there are 4 dimensions of e-servicescape [37], [36]:

1. Ambient/Aesthetic Conditions: Includes quality of photos, colors, animation effects, virtual tours, music and sounds.
2. Design Aspects: The spatial layout, "*the overall structure, layout, wisely used space and easy navigational functions*" of the virtual service.
3. Search Aids & Slogan: Includes the signage, symbols, company/corporate logo
4. Functional Aspects: Assistance for customers' needs, navigation structure, and interactive functions

Figure 8 and Figure 9 depict the framework of an e-servicescape of a virtual servicescape of a B&B (bed and breakfast) website and a hospital website which can be used for any other virtual services available. As explained above, the environmental dimensions that are the parameter of the servicescape in virtual service can be divided into four categories; ambient condition, design aspect, search aids and slogan, and the functionality of the virtual service. With the four dimensions, customer can then create a perceived quality of the service, hence, dividing into three categories; cognitive, emotional, and psychological levels. The cognitive level, customers reflect their reaction regarding the design and functional aspects such as layout, use of space, and overall structure of the virtual service. While in the physiological reaction, customers will get a reflection based on their feelings from ambient conditions, such as color, font type and size, quality of visual presentations, animation, and so on, thus,

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it can bring to a conclusion on whether or not customers feel comfortable using the virtual service. Hence, based upon the physiological reaction, customers can determine whether they will continue to utilize the virtual service or quit using it. Furthermore, an emotional reaction may be induced from the virtual servicescape such as what the customers like and dislike regarding the virtual service. Consequently, e-servicescape strongly influences customers' perceptions of the virtual service quality. Without providing relevant and expected service quality, any virtual service, from websites to application will not be able to pique customers' attention and retain their interest long enough to use the virtual service from start to finish [36].

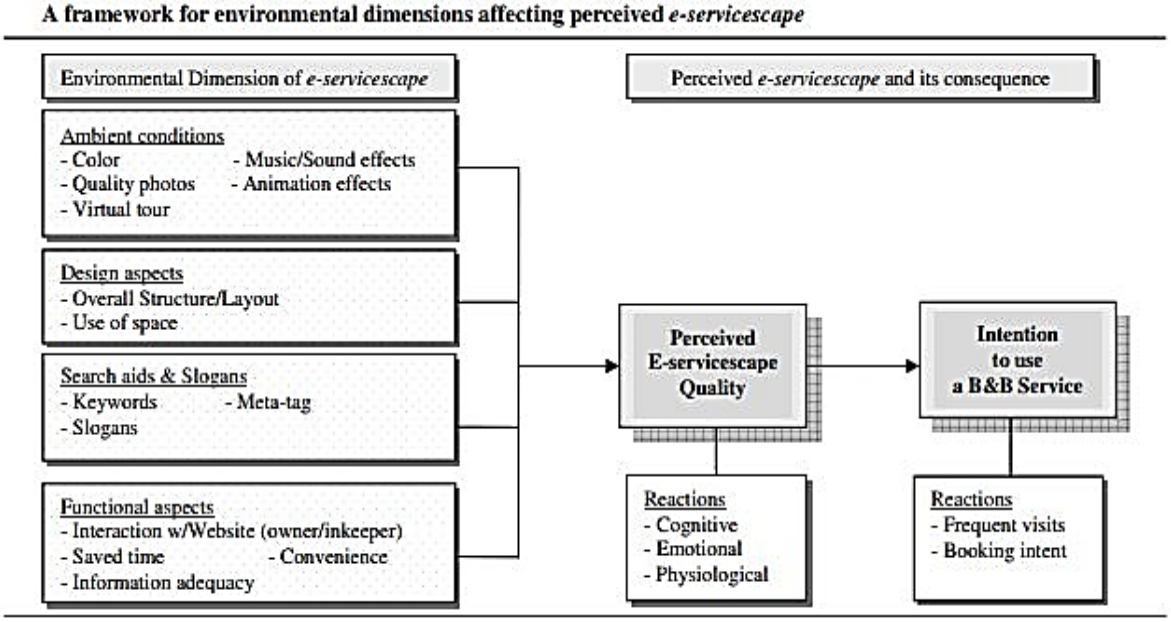

Figure 8. A Framework for Environmental Dimensions Affecting Perceived E-Servicescape for a Bed and Breakfast Service Website[36]

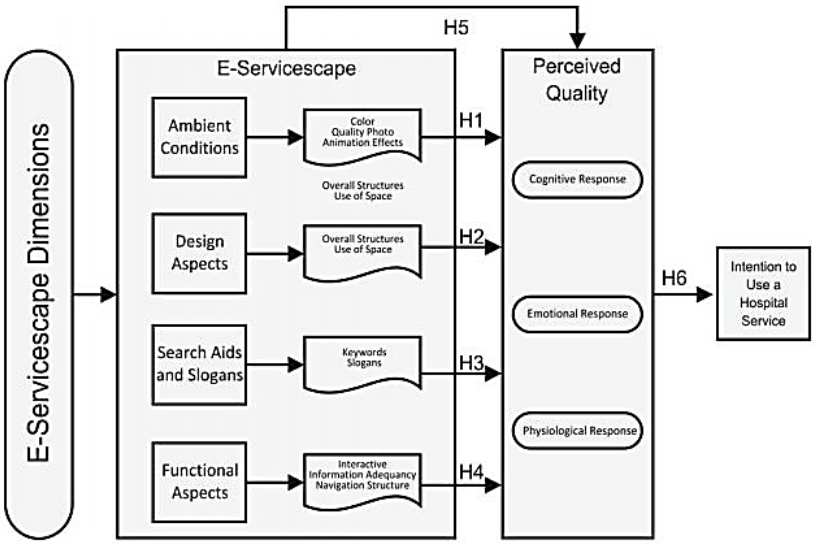

Figure 9. E-Servicescape Dimensions for a Hospital Service Website[37], [36]

2.6 Customer Satisfaction

Customer satisfaction measure on how well the service and product that have been given to meet the customer's expectation. The concept itself is abstract and consist of many factors such as quality of the product and services, the ambience surrounding the location, and price of the goods and service itself [38].

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2.6.1 Customer Satisfaction Score

Customer Satisfaction Score or CSAT is one of the most straight forward metrics to evaluate customer satisfaction. This metrics is performed by asking questions and the scaled is flexible, it can 1 – 3, 1 – 5, or 1 – 10. The biggest advantage of using CSAT is in the simplicity. It is easy to get the respondent and also easy for determine whether the score is good or not. The analyzing process also apparent as it is easy to pinpoint the moment when customer isn't satisfied. The formula itself is simple as it is happy customers divided by number of customer asked [39].

Figure 10. CSAT Formula[40]

CSAT can bring many benefits because it is short simple, and intuitive. Not to mention the flexibility of rating since it is based on the context. The response rate will also be higher since CSAT only required few questions. There some caveat though, there might be potential cultural bias and also it is ambiguity regarding what is good and bad since it is flexible. Satisfaction itself is subjective and every customer will have different meaning on that word. Moreover, customer who are dissatisfied and neutral have a high chance of not filling the survey, making it less accurate [39].

2.6.2 Customer Acquisition Cost

Customer Acquisition cost or CAC is the one of the metrics that is growing in terms of usage. CAC is counting the cost when the companies try to get customers. It measures the effectiveness of the effort. CAC metric is important for two parties, companies and investors. Companies can use it to determine their profitability by looking at the difference between how much money they can get and the cost to get the money. Other party or investors are more concerned about the current one rather than the future unless it is acceptable. They tend to focus on reducing the Customer Acquisition Cost to get the larger profit margin [41].

There are two ways to calculate Customer Acquisition Cost. First one is simple calculation and the second one is a complex calculation. The simple one provides a simple and easy formula but less accurate while the complex needs a lot of variables to work but significantly more accurate. The simple method to calculate Customer Acquisition Cost is involving total marketing campaign cost that is related to acquisition or MCC and total customer acquired or CA. the formula itself is simply divide the MCC with CA [42].

$$CAC = \frac{MCC}{CA}$$

Figure 11. Simple CAC Formula
Source: [42]

The complex method is using more variables. The MCC and CA from simple method is still being used but there are more such as wages that associated with marketing and sales or W, cost of all marketing and sales software or S, additional professional services cost or PS, and other overheads or O. The formula is MCC + S +W + PS + O divided by CA (Gotham, 2017).

$$CAC = \frac{MCC + W + S + PS + O}{CA}$$

Figure 12. Complex CAC Formula
Source: (Gotham, 2017)

CAC is used as one of the KPI's analyzed when the companies is scaling up. It is used for A/B tests of the acquisition channels. It can also help with customer segmenting. There are 5 ways to drop CAC's number which

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is improving the website, implementing buyer persona, investing in customer retention, use marketing automation, and reducing churn [43].

2.7 Customer Experience

Customer experience is the entire interaction of a customer has with a company and its product or services. Customer experience is vital on customer relationship management. The experience reflects on how the customer feel regarding the company and their product or services. Feedback forms, survey, interview and any other data collection method help company to determine the customer experience. (Business Dictionary, 2018).

2.7.1 Net Promoter Score

One of the most used metrics to measure efforts for customer service is Net Promoter Score. NPS is an index between -100 to 100. It reflects the willingness of the customer to recommend the product or service. The method itself is usually by asking the customer a simple question that is a rate-based answer which has an 11-point scale (0 – 10) [43].

The respondent then will be divided into 3 categories. Promoters, passives, and detractors. Promoters are the one who scored 9 – 10, they are loyal customers who will keep buying and recommend it to others. Passives are the one who scores 7 – 8, this customer category is satisfied with the product and services but not loyal and vulnerable to competitor's offerings. Detractors are the one who scores 0 – 6, this category is not satisfied with the service, product, or both. This customer category can hurt the brand's image and spread negative image with word-of-mouth. To measure NPS, subtract the percentage of detractors from the percentage of promoters [44].

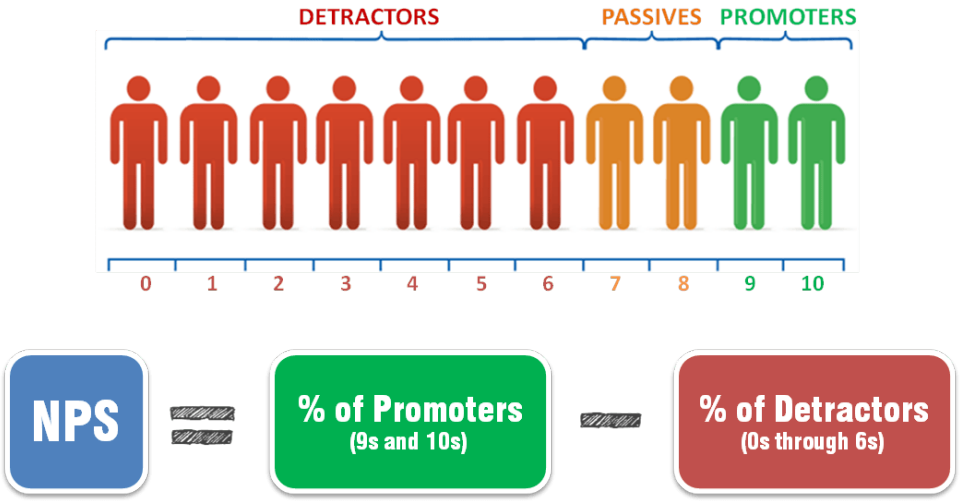

Figure 13. Net Promoter Score Formula
Source: (Ujjainwalla, 2015)

Many studies indicate the result of using Net Promoter Score. For example, American Express management started to evaluate their service based on the Net Promoter Score results. The insight that is received and the implementation led to 10 – 15% increase on customer spending and 4 to 5 times higher retention rate [43].

2.7.2 Customer Effort Score

Customer Effort Score is a metrics to measure the ease of experience when dealing with the company by asking customer on how much effort it took to interact with company's product or service. Evaluating how much effort required on customer part can led to how likely they are to continue and using the product. It is also word-based scale. The formula for CES is % easy - % difficult [39]

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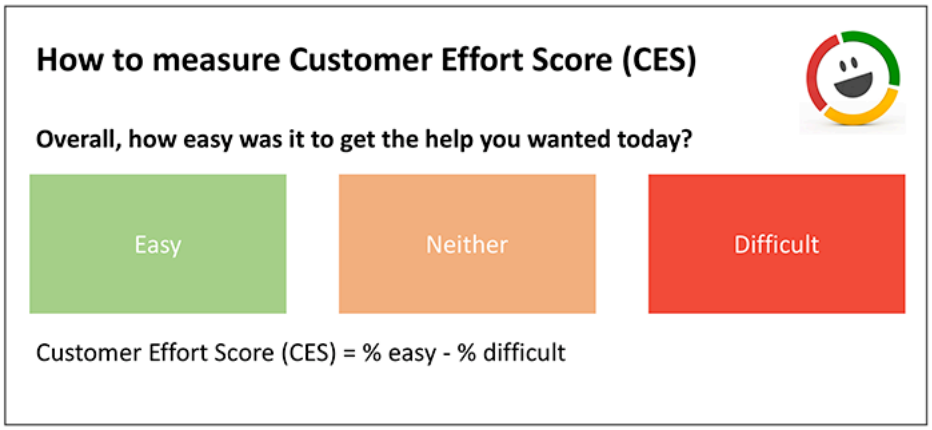

Figure 14. CES Formula
Source: [45]

3 Research Design

This study incorporates primary data from survey respondents. The total respondents of the two surveys that were conducted in 199. Furthermore, this study examines the correlation between the perceived quality of customers when using the respective online taxi transportation and their expected quality of the service provided. The following study utilized a combination of random sampling based on questionnaires, hence, the respondents were all anonymous. The questionnaires were distributed via social media applications. Two surveys were conducted, one; regarding the RATER of the respective online taxi transportation service and the second; the servicescape of both the application of the respective online taxi transportation service and the drivers themselves.

This study incorporates primary data from survey respondents. The total respondents of the two surveys that were conducted in 199. Assumedly, the respondents of the surveys only filled in one surveys per person. Furthermore, this study examines the correlation between the perceived quality of customers when using the respective online taxi transportation and their expected quality of the service provided. The following study utilized a combination of random sampling based on questionnaires, hence, the respondents were all anonymous. The questionnaires were distributed via social media applications. Two surveys were conducted, one; regarding the RATER of the respective online taxi transportation service and the second; the servicescape of both the application of the respective online taxi transportation service and the drivers themselves.

In order for all the data to fit in the page, the question titles were abbreviated. Listed below are the meanings of the abbreviated titles:

The respondents are requested to fill in a scaling survey of 1-10 for each questions (excluding the age, work status, and sex which are multiple choices). The questions were asked to rate whether or not the following questions (excluding age, sex, and work status) are considered important when using online taxi transportation, scaling from 1-10, 1 being least important while 10 being most important. For the servicescape questionnaire, respondents were asked to rate their expectations of the following questions (excluding age, sex, and work status) to see how important their expectations of the dimensions of servicescape. The second questionnaire is the regarding each of the online taxi transporatation; Go-Car (Gojek), Grab Car (Grab), and Blue Bird. Thus, respondents are to rate their experiences after using the respective online transportation from the scaling of 1-10. This allows an insight on whether the perceived quality of the service has been met the expectation of the customers, thus, ensuring customer satisfaction.

Table 1. Respondents

Servicescape Survey		Go-Car, Grab Car, Blue Bird Taxi	
Age	The age of the respondent	Age	The age of the respondent
Sex	The sex of the respondent	Sex	The sex of the respondent
Work Status	The work status of the respondent	Frequency of Usage	how frequent the respondent use the respective service
Design Application	The attrativeness of the design of the application	Accessibility	The accessibility of the application
Feature Application	The amount of features that the application has to offer	Appealing Application	The attractiveness of the application
Accessible Application	The accessibility of the application	Route Knowledge	The drivers' knowledge regarding accessible route to take

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Fare Price	Fare price of the service	Fare Price	How reasonable do the respondents think regarding the fare price
Color	The color of the application	Driver Manner	The manners of the drivers
Slogan	The slogan of the respective online taxi service	Safety Trip	The safety of the trip
Driver Manner	The manner of the driver portray	Hygene	The cleanliness of the driver and car
Safe Route	The kind of safe route the drivers take when driving to destination	Convienence	The convenience that the driver provide
Type of Care	The type of car the driver drives	Options in Application	The options that the application provide
Logo	The logo of the online taxi service	Driver Skill	The skills of the drivers when driving (drive fast or slow)
Hygene	The cleanliness of the driver and the car	Availability	how fast it was in obtaining a driver
AC	Whether or not the driver stall the AC when in service	Trust Issue	The reliability of the driver to take the respondent to destination
Music	Whether or not the driver stall the music when in service	Feedback	The responsiveness of feedback and/or customer care
Smell	The smell of the car in the inside		
Interior Design	The interior design of the driver's car		
Driver Style	How the drivers drive		
Appearance Driver	The appearance of the driver		

4 Result and Discussion

4.1 Result

4.1.1 Reliability

The reliability of the servicescape was stated on 0.710 where the variables are fully comprehended the procedures in 99% (all of 99 data) of the case summary was recorded in servicescape and 100% (all of 33 data) of the case summary was recorded in relation to Gojek, Grab and Blue Bird, for a total of 20 data altogether.

Table 2. Reliability Statistics for Servicescape

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.712	0.710	20

Source: SPSS

The reliability of the Go-Car was stated on 0.871 with listed on the 16 variables.

Table 3. Reliability Statistic for Go-Car

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.893	0.871	16

Source: SPSS

The reliability of the Grab Car was stated on 0.776 with the list on 16 data altogether.

Table 4. Reliability Statistic for Grab Car

Reliability Statistics

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Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.488	0.776	16

Source: SPSS

The reliability of the Blue Bird was stated on 0.964 with the list on 16 data altogether.

Table 5. Reliability Statistic for Blue Bird

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.972	0.964	16

Source: SPSS

4.1.2 Correlations

Table 6. Correlation Matrix of Servicescape Survey

Correlation Matrix[a]									
	AGE	SEX	WORK STATUS	DESIGNAPP	FEATUREAPP	ACCESSIBLEAPP	FAREPRICE	COLOR	SLOGAN
AGE	1.000	-0.140	-0.103	-0.105	-0.156	0.039	0.058	0.075	0.079
SEX	-0.140	1.000	-0.100	-0.017	-0.094	-0.213	-0.247	-0.022	-0.161
WORKSTATUS	-0.103	-0.100	1.000	0.018	-0.004	0.053	0.044	0.045	-0.107
DESIGNAPP	-0.105	-0.017	0.018	1.000	0.684	0.515	0.463	0.475	0.080
FEATUREAPP	-0.156	-0.094	-0.004	0.684	1.000	0.778	0.666	0.139	0.098
ACCESSIBLEAPP	0.039	-0.213	0.053	0.515	0.778	1.000	0.842	-0.091	0.234
FAREPRICE	0.058	-0.247	0.044	0.463	0.666	0.842	1.000	-0.031	0.247
COLOR	0.075	-0.022	0.045	0.475	0.139	-0.091	-0.031	1.000	0.018
SLOGAN	0.079	-0.161	-0.107	0.080	0.098	0.234	0.247	0.018	1.000
DRIVERMANNER	-0.029	0.027	-0.068	0.184	0.147	0.146	0.180	-0.062	0.172
SAFEROUTE	0.128	-0.188	0.053	0.035	0.002	0.107	0.038	-0.036	0.010
TYPEOFCAR	-0.064	-0.103	-0.067	0.053	-0.134	-0.140	-0.047	-0.047	0.042
LOGO	0.173	-0.276	-0.037	0.058	-0.009	0.084	0.117	0.101	0.509
HYIGENE	-0.128	-0.018	-0.020	0.108	0.129	0.076	0.002	-0.032	0.050
AC	-0.085	0.017	0.047	0.273	0.198	0.149	0.143	0.104	-0.024
MUSIC	0.021	0.229	0.007	-0.008	-0.071	-0.042	-0.050	-0.093	-0.030
SMELL	-0.233	0.045	-0.139	0.193	0.217	0.084	0.077	0.102	-0.086
INTERIORDESIGN	-0.175	0.176	-0.064	0.125	0.082	-0.045	0.014	-0.041	0.075
DRIVESTYLE	-0.047	-0.084	-0.177	0.259	0.151	0.212	0.109	0.012	0.161
APPEARANCEDRIVER	0.079	-0.014	-0.028	0.016	-0.006	0.032	0.048	0.074	0.071

Source: SPSS

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Table 7. Correlation Matrix of Servicescape Survey (Cont.)

Correlation Matrix[a]											
	DRIVERMANNER	SAFEROUTE	TYPEOFCAR	LOGO	HYIGENE	AC	MUSIC	SMELL	INTERIORDESIGN	DRIVESTYLE	APPEARANCEDRIVER
AGE	-0.029	0.128	-0.064	0.173	-0.128	-0.085	0.021	-0.233	-0.175	-0.047	0.079
SEX	0.027	-0.188	-0.103	-0.276	-0.018	0.017	0.229	0.045	0.176	-0.084	-0.014
WORKSTATUS	-0.068	0.053	-0.067	-0.037	-0.020	0.047	0.007	-0.139	-0.064	-0.177	-0.028
DESIGNAPP	0.184	0.035	0.053	0.058	0.108	0.273	-0.008	0.193	0.125	0.259	0.016
FEATUREAPP	0.147	0.002	-0.134	-0.009	0.129	0.198	-0.071	0.217	0.082	0.151	-0.006
ACCESSIBLEAPP	0.146	0.107	-0.140	0.084	0.076	0.149	-0.042	0.084	-0.045	0.212	0.032
FAREPRICE	0.180	0.038	-0.047	0.117	0.002	0.143	-0.050	0.077	0.014	0.109	0.048
COLOR	-0.062	-0.036	-0.047	0.101	-0.032	0.104	-0.093	0.102	-0.041	0.012	0.074
SLOGAN	0.172	0.010	0.042	0.509	0.050	-0.024	-0.030	-0.086	0.075	0.161	0.071
DRIVERMANNER	1.000	0.501	0.169	-0.022	0.496	0.343	0.171	0.223	0.227	0.622	0.285
SAFEROUTE	0.501	1.000	0.140	0.097	0.551	0.272	0.170	0.176	0.208	0.561	0.309
TYPEOFCAR	0.169	0.140	1.000	0.099	0.297	0.218	0.064	0.231	0.401	0.177	0.327
LOGO	-0.022	0.097	0.099	1.000	0.061	-0.023	0.057	-0.020	0.136	0.051	0.189
HYIGENE	0.496	0.551	0.297	0.061	1.000	0.492	0.139	0.322	0.267	0.457	0.166
AC	0.343	0.272	0.218	-0.023	0.492	1.000	0.145	0.398	0.209	0.263	0.185
MUSIC	0.171	0.170	0.064	0.057	0.139	0.145	1.000	0.355	0.583	0.054	0.041
SMELL	0.223	0.176	0.231	-0.020	0.322	0.398	0.355	1.000	0.450	0.250	0.109
INTERIORDESIGN	0.227	0.208	0.401	0.136	0.267	0.209	0.583	0.450	1.000	0.212	0.133
DRIVESTYLE	0.622	0.561	0.177	0.051	0.457	0.263	0.054	0.250	0.212	1.000	0.392
APPEARANCEDRIVER	0.285	0.309	0.327	0.189	0.166	0.185	0.041	0.109	0.133	0.392	1.000

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Table 8. KMO and Bartlett Test of Servicescape Survey

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.602
Bartlett's Test of Sphericity	Approx. Chi-Square	803.209
	df	190
	Sig.	0.000

Table 9. Communalities Table for Servicescape Survey

Communalities		
	Initial	Extraction
AGE	1.000	0.639
SEX	1.000	0.598
WORKSTATUS	1.000	0.735
DESIGNAPP	1.000	0.814
FEATUREAPP	1.000	0.851
ACCESSIBLEAPP	1.000	0.906
FAREPRICE	1.000	0.809
COLOR	1.000	0.892
SLOGAN	1.000	0.613
DRIVERMANNER	1.000	0.670
SAFEROUTE	1.000	0.756
TYPEOFCAR	1.000	0.631
LOGO	1.000	0.728
HYIGENE	1.000	0.619
AC	1.000	0.495
MUSIC	1.000	0.848
SMELL	1.000	0.565
INTERIORDESIGN	1.000	0.777
DRIVESTYLE	1.000	0.734
APPEARANCEDRIVER	1.000	0.379
Extraction Method: Principal Component Analysis.		

Figure 15. Communalities for Grab

Communalities		
	Initial	Extraction
SEX	1.000	0.660
AGE	1.000	0.852
ACCESSIBILITYAPP	1.000	0.862
APPEALINGOFAPP	1.000	0.801
ROUTEKNOWLEDGE	1.000	0.578
DRIVERMANNER	1.000	0.735
SAFETYTRIP	1.000	0.687
HYIGENE	1.000	0.738
CONVENIENCE	1.000	0.881
OPTIONINAPP	1.000	0.758
DRIVERSKILL	1.000	0.826
AVAILABILITY	1.000	0.938
TRUSTISSUE	1.000	0.810
FEEDBACK	1.000	0.843
FREQUENTUSAGE	1.000	0.661
FAREPRICE	1.000	0.857
Extraction Method: Principal Component Analysis.		

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Figure 11. Communalities for Blue Bird

Communalities		
	Initial	Extraction
SEX	1.000	0.662
AGE	1.000	0.484
FREQUENTUSAGE	1.000	0.606
ACCESSIBILITY	1.000	0.914
APPEALINGAPP	1.000	0.888
ROUTEKNOWLEDGE	1.000	0.843
FAREPRICE	1.000	0.838
DRIVERMANNER	1.000	0.846
SAFETYTRIP	1.000	0.876
HYIGENE	1.000	0.838
CONVENIENCE	1.000	0.861
OPTIONSINAPP	1.000	0.920
DRIVERSKILL	1.000	0.766
AVAILABILITY	1.000	0.810
TRUSTISSUE	1.000	0.724
FEEDBACK	1.000	0.750
Extraction Method: Principal Component Analysis.		

Figure 16. Communalities for Go-Car

Communalities		
	Initial	Extraction
SEX	1.000	0.688
AGE	1.000	0.467
FREQUENTUSAGE	1.000	0.409
ACCESSIBILITYAPP	1.000	0.750
APPEALINGAPP	1.000	0.598
ROUTEKNOWLEDGE	1.000	0.714
FAREPRICE	1.000	0.817
DRIVERMANNER	1.000	0.679
SAFETYTRIP	1.000	0.722
HYIGENE	1.000	0.754
CONVENIENCE	1.000	0.815
OPTIONSINAPP	1.000	0.729
DRIVERSKILL	1.000	0.911
AVAILABILITY	1.000	0.760
TRUSTISSUE	1.000	0.858
FEEDBACK	1.000	0.850
Extraction Method: Principal Component Analysis.		

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4.2 Discussion

All the data was analyzed by SPSS. The Cronbach's Alpha is a test to measure the reliability scale or internal consistency of a set of data [46]. The Cronach's Alpha measure the covariance amongst the items, in other words, the measure of strength of the correlation between two or more sets of the random variates. The Cronbach's Alpha based on Standardized Items employs the correlations amongst the items presented. The results α coefficient of reliability ranges from 0 to 1. The closer it is to 1, the higher the covariance is, the closer the result it is to 0, the lower the consistency it is. According to Tables 3, 4, 5, and 6, it shows that all of the surveys that were conducted are reliable because the Cronbach's Alpha test proved that the data are above 0.5 at the minimum. Though that may be true, most are still below 0.9 in the reliability test. The many probable reasons as to why the reliability of the data may not be as high as expected is perhaps that because the questionnaire may not be fully understood by most respondents, there might not be enough respondents that responded to the questionnaires, and/or there might not be enough questions to accommodate the correlation research.

For the servicescape questionnaire, the KMO and Barlett's Test indicates an adequacy measurement of 0.602. As for Blue Bird, the KMO and Barlett's Test is shown as 0.839, Go-Car is at 0.654 while Grab is the least with 0.613. Thus, this can be implied that the data results were relatively adequate for further testing because the survey results were above the average of 0.50.

According the Pearson Correlation, the sign of r = the nature of correlation while the value of r = the strength of correlation. Thus, if;

a. $r = 0$ (no correlation)
b. $0 < r < 0.25$ (weak correlation)
c. $0.25 \leq r < 0.75$ (intermediate correlation)
d. $0.75 \leq r < 1$ (strong correlation)
e. $r = 1$ (perfect correlation)

Thus, in the correlation matrix, the number that is closer to 1 means that it has a high level of correlation to one another. In the survey of servicescape, the DRIVERMANNER and DRIVERSTYLE has the highest correlation with 0.622, this indicates and can be interpreted that the expectations of the driving style of the driver can affect the kind of the mannerism that customers may perceived. Blue Bird on the other hand has the highest with 0.898 with its correlation between FEEDBACK and TRUSTISSUE. Go-Car also has its highest at 0.891 with its correlation between FEEDBACK and TRUSTISSUE. This can be interpreted that the kind of trust the customer place on the drivers will reflect on the kind of feedbacks the respective customers give to the businesses and the drivers. Grab on the other hand has its highest with merely 0.731 with its correlation between HYIGENE and CONVIENCE.

Based on the Communalities Table, it can be interpreted that the ability to have options in the Blue Bird application is significant because it reached at 0.920. Thus, it can be inferred that the more options the Blue Bird application has, the more satisfied the customers are. Grab on the other hand has its most significant at 0.938 with AVAILABILITY. This can be interpreted that the availability of the drivers at the time of need and urgency is important for the customers, thus, it can be concluded that the responsiveness of the drivers when accepting orders have a significant impact on customer satisfaction. Go-Car on the other hand has almost all of its factors above 0.5 with the exception of AGE which is to be expected. The highest number on the Communalities Table for Go-Car is DRIVERSKILL with 0.911. This can be inferred that driving skills of the driver has a huge impact of customer satisfaction with its customers.

5 Conclusions

According to the researchers, "*customer satisfaction is regarded as the cornerstone of any customer-focused business*" [47]. According to Table 9, it can be inferred that the accessible of the app is clearly impactful and able to make customers to decided which app and transportation to use, having number 0.906 which is the closest value among all the variables to 1 which make it ranked the number 1 factors affecting the option to choose the app. It can be told that the customers which divided equally between men and women, chose that appearance driver is the least impactful variable that affecting the option for choosing an online transportation.

Evidently, factors such as design of the app, the features, prices, color, and appearance of the app, support the factors for choosing the app for the online transportation. It can be taken into the account that the next or startup business that desired to have the similar services and products like Go-Car, Grab, and Blue Bird Taxi should considered to have the factors mentioned above in order to have their business strong enough to compete in the market of Indonesia by prioritizing the variables mentioned above.

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