

## THE ROLE OF SERVICE QUALITY IN SHAPING PASSENGERS' LOYALTY: A STUDY OF PUBLIC ROAD TRANSPORTATION COMPANIES

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### Article Info

**Keywords:** service quality, passengers' loyalty, road transportation, Nigeria, SERVQUAL Model, safety, comfort, drivers' competence, travel time, vehicle cleanliness. Service

### Abstract

This study contributes to the existing literature by providing empirical evidence on the relationship between service quality dimensions and passengers' loyalty in the context of public road transportation in Nigeria. The findings have practical implications for transportation companies, highlighting areas of improvement to enhance service quality and strengthen passengers' loyalty.

### INTRODUCTION

Service quality is a universal phenomenon that applies to all service-providers regardless of industry or geographical location of operation. For service-delivery companies in today's era of consumer enlightenment and sophistication to be able to succeed, they must have the capacity to consistently deliver high-quality services that meet or exceed customers' expectations (Akpoyomare, Adeosun & Ganiyu, 2016). Baloch and Jamshed (2017) argued that the key to running a successful service-oriented business, especially one with a highcontact feature such as transportation, where passengers and service providers interact more closely, is delivering high-quality services. According to Harvey (2015), service quality is an assessment of how well a delivered service conforms to the client's expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess clients' satisfaction. Bitner (1990) viewed service quality as a customer's impression of the relative superiority/inferiority of a service provider and its services.

The significance of delivering high-quality services in a competitive service setting such as the transportation industry cannot be debated. This is amplified by studies such as Akpoyomare, Adeosun and Ganiyu (2016); Njeru, Cheruiyot and Maru (2019); Julius and Jatmika (2019), which assert that the delivery of high-quality services enables service companies to significantly enhance their performance (in terms of customer satisfaction and retention). Driven by this insight, Njeru, Cheruiyot and Maru (2019) maintain that service companies across various industries are seeking sustainable ways to consistently improve the quality of services offered to consumers at every point of service encounter in order to advance their capacities to ensure customer satisfaction and improve customer retention rates. Accordingly, the SERVQUAL Model developed by Parasuraman, Zeithaml and Berry (1988) presents five (5) specific dimensions of service quality which could be controlled and adjusted by service companies in order to improve overall service quality. These five (5) dimensions include: reliability, responsiveness, empathy, assurance and tangibles. Building upon the SERVQUAL dimensions, this

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study has extracted service quality dimensions relevant to the road transportation services. These included: passengers' safety, passengers' comfort, drivers' competence, travel time, and vehicle cleanliness.

Passengers' safety is the state of passengers being safe; the condition where passengers are protected from harm, injury, risk or other dangers at the service providers' facilities and during transportation to their final destinations (Sam & Abane, 2017). Passengers' comfort is the degree to which passengers are comfortable with the seats, travel experience, vehicle temperature and other experiential components they come in contact with while in transit (Han, Kwon & Chun, 2016). Drivers' competence entails the level of proficiency, skillfulness and expertise possessed by personnel involved in piloting or navigating the transportation vehicle from origin to passengers' final destination (Chaiard, Deeluea, Suksatit & Songkham, 2019). According to Saw, Dissanayake, Ali and Bentotage (2020), travel time is the time it takes a transportation company to move passengers from source to their destinations. Vehicle cleanliness entails the degree of cleanliness of the exterior and interior of the transportation vehicle (Nwachukwu, 2014). However, in the Nigerian public road transportation sector, most companies often fail to incorporate these service quality dimensions into the delivery processes, thereby subjecting passengers to huge discomfort and other unpleasant travel experiences.

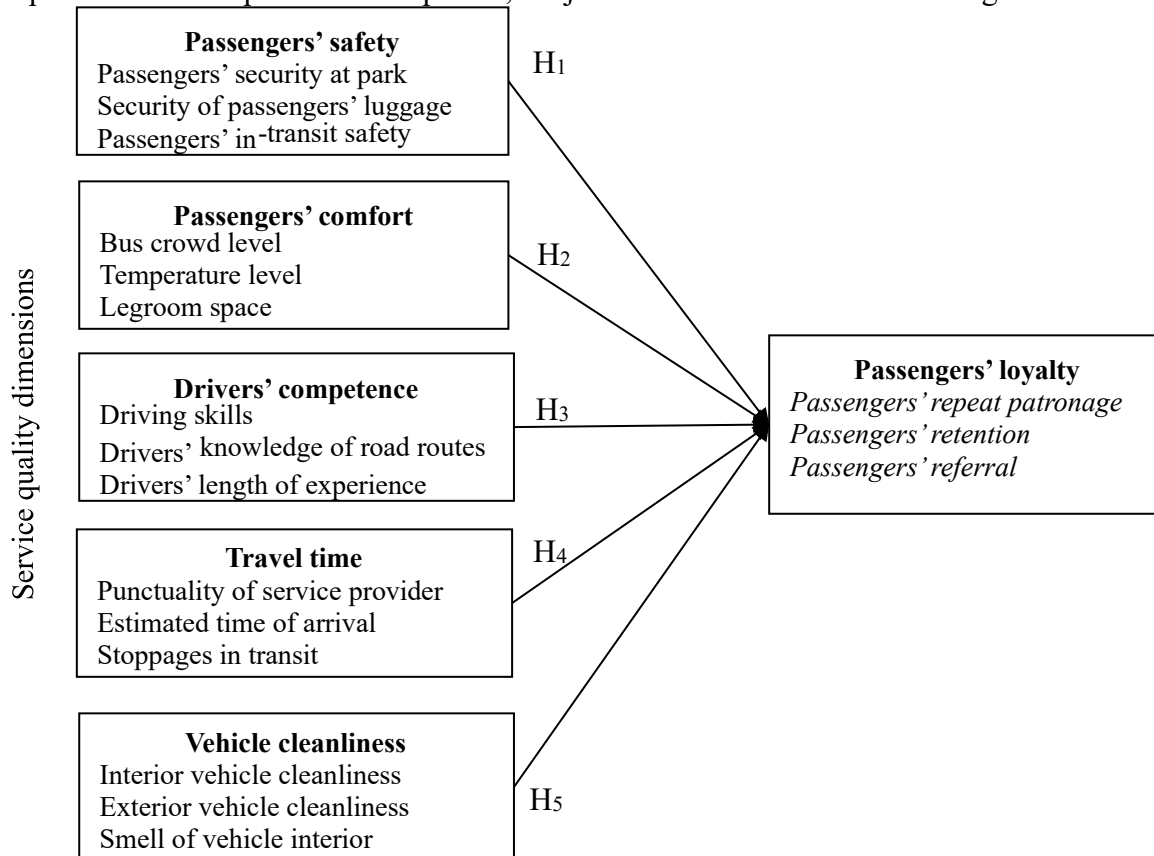
Against the backdrop of poor service quality, passengers' demand for more value and intensive competition, new public road transportation companies in Nigeria are gradually introducing service innovations with the intention of improving the quality of transportation services offered to customers (Nwachukwu, 2014). These innovations include reducing passenger booking through online booking platforms; provision of comfortable transportation vehicles and accessories, among others. However, the efforts of public road transportation companies at enhancing passengers' satisfaction and loyalty have been impeded by factors such as the bad situation of Nigerian roads; high cost of transportation vehicle acquisition and maintenance, which causes journey delays, in-transit stoppages, and general discomfort to passengers. Passengers of public road transportation companies may also be uncomfortable with the stress and difficulties encountered in booking transportation services because not every transportation company in Nigeria has been able to maintain an online or remote service booking system, which allows passengers to make journey reservations without physically visiting the service provider. In response to these challenges, dominant transportation companies in Nigeria have evolved innovative service delivery strategies such as the introduction of remote (online or mobile) booking systems; improvement of travel time; and implementation of passengers' safety measures in an attempt to improve passengers' loyalty. However, there is inadequate empirical evidence to definitively determine whether or not the implementation of service quality dimensions (safety, comfort, drivers' competence, travel time and vehicle cleanliness) by public road transportation companies could sustainably improve passengers' loyalty. Against this backdrop, this study was therefore conducted to use empirical data to statistically determine the extent to which service quality (safety, comfort, drivers' competence, travel time and vehicle cleanliness) had significantly improved passengers' loyalty to public road transportation companies.

#### **LITERATURE REVIEW Conceptual framework**

This study examined service quality and passengers' loyalty of public transportation companies. Its specific aim was to determine the effect of the independent variable (service quality) on the dependent variable (passengers' loyalty) in the context of public road transportation companies. To that end, the independent variable (service quality) was decomposed into five (5) specific quality dimensions of road transportation service, namely: passengers' safety, passengers' comfort, drivers' competence, travel time and vehicle cleanliness; whereas, the dependent variable (passengers' loyalty) is measured through passengers' repeat patronage, passengers' retention and passengers' referral. Informed by existing empirical studies, the researcher has developed a conceptual model for the study which visually depicts the correlation between the aforementioned service quality dimensions and passengers' loyalty as hypothesized in this study.

In the context of this study, passengers' comfort is the degree to which passengers are comfortable with the seats, travel experience, vehicle temperature and other experiential components of companies while in transit. Passengers' safety is operationalized to define the condition where passengers are protected from harm, injury,

risk or other dangers at the service providers' facilities and during transportation to their final destinations. Drivers' competence is the level of proficiency and expertise of transportation companies' drivers from origin to passengers' final destination. Travel time is the time it takes for transportation companies to move passengers from source location to their final destinations. Whereas, vehicle cleanliness is the degree of cleanliness of the exterior and interior sides of a transportation company's vehicle. As for the measures of the dependent variable (passengers' loyalty), passengers' repeat patronage entails the situation where passengers repeatedly patronize the services of public road transportation companies. Passengers' retention is the long-term fidelity of passengers to the services of a particular public road transportation service brand over others. From the conceptual model in Fig. 1, it was assumed that there is a relationship between service quality dimensions and passengers' loyalty of public road transportation companies; subject to definitive statistical testing in the course of the study.



**FIG. 1: Conceptual model of the study**

Source: Adapted from the SERVQUAL model by Zeithaml, Parasuraman and Berry (1988)

### Service Quality

Basically, service quality is the difference obtained from a comparison between customers' perceived anticipations and the actual performance of the service provider or its services. This conceptualization of service quality has its origin in the expectancy-disconfirmation paradigm

(Oliver, Balakrishnan & Barry, 1994). It could be viewed as a customer's perception of the degree to which a delivered service meets or exceeds their expectations from the provider (Bitner, 1990; Parasuraman, Berry & Zeithaml, 1985). Harvey (2015) defines service quality as an assessment of how well a delivered service conforms to the client's expectations. Service quality is the difference between perceived performance and actual performance of service. It is the degree to which actual performance of service meets or exceeds consumers' perceived performance of service (Bryan & Shales, 2012). Gurley (2018) maintains that ideally, all customers hold certain expectations that they hope to be fulfilled by services consumed even before actually consuming the service. Service quality measures how well a service is delivered compared to customer expectations. Prakash and Mohanty (2012) assert that scholars from across the academic spectrum have contributed to an understanding

of service quality, however, with over two decades of study and much lively debate, the conceptual work on service quality can be best described as divergent.

### **Passengers' loyalty**

Passengers' loyalty is the tendency for passengers to repeatedly patronize a particular transportation company over other companies (Nyongesa & Bwisa, 2014; Lovelock & Wirtz, 2016). Passengers' loyalty indicates the extent to which passengers are devoted to a transportation company and how strong their tendency to consistently maintain business relations with its brand. It is positively related to passengers' satisfaction because happy passengers will typically consistently favor transportation brands that meet their service needs (Haran, Sejim & Cadhem, 2013). In the views of Lewis and Maurice (2018), passengers' loyalty is the continued and regular patronage of a transportation company in the face of alternative brands and competitive attempts to disrupt the relationship. It involves a perceptible and behavioural propensity for transportation companies' passengers to travel with a particular company consistently over an extended period of time in the midst of potentially available alternative companies. Transportation companies that are able to build brand loyalty among their customer base stand to enjoy enormous marketing benefits such as gaining price-insensitive passengers; increased new customer acquisitions through positive word-of-mouth communication; increased profitability from sales revenue; and an enhanced competitive position in the marketplace. This is the reason why scholars like Robert, Muller and Purcell (2018) argue that a firm's long-term market survival is inextricably linked to its ability to deliver services in a way that is capable of effectively turning first-time customers into dedicated loyal customers.

### **Safety and passengers' loyalty**

In the context of transportation services, Nyongesa and Bwisa (2014) define passengers' safety as the condition where passengers are protected from harm, injury, risk or other dangers at the service providers' facilities and during transportation to their final destinations. This definition entails that safety in the context of transportation encompasses the personal safety of passengers and their luggage at the facilities of transportation companies and the safety of passengers including their luggage during conveyance to their preferred destinations. Passengers prioritize their safety and that of their luggage when choosing transportation service providers regardless of means of transportation (Nafiu, Hassan & Alogwuja, 2018). Their major concern is how to be conveyed to their preferred destinations in a safe and secure manner. As such, being able to deliver transportation services that meet or exceed passengers' expectations of safety and security creates the perception that a service provider offers high-quality services and may encourage passengers' satisfaction and repeat patronage intentions.

The foregoing premise implies that passengers' safety, being a component of transportation service quality, could influence overall passengers' satisfaction and repeat patronage behaviour. This premise is substantiated by the study of Saw, Dissanayake, Ali and Bentotage (2020), which revealed that passenger satisfaction was significantly influenced by security and safety. The premise is also supported by the study of Nyongesa and Bwisa (2014), which revealed that passengers' security significantly and positively influenced passenger satisfaction in the public transport sector of Kenya. The foregoing premise also corresponds with the study of Singh (2016), which revealed that passenger safety had a significant positive impact on overall passenger satisfaction with public transportation services in Lucknow City.

### **Comfort and passengers' loyalty**

In the context of transportation service, passengers' comfort is the degree to which passengers are comfortable with the seats, travel experience, vehicle temperature and other experiential components of companies while in transit (Njeru, Cheruiyot & Maru, 2019). It is the state in which passengers are relaxed, free of pain, distress, physical or psychological stress when being conveyed by a transportation company to their preferred locations. Travel comfort is an indispensable factor considered by the majority of potential passengers before patronizing a transportation company (Julius & Jatmika, 2019). In fact, it is in the search for travel comfort, among other benefits, that most passengers prefer to travel by air to other distressing means of transportation such as road, rail and sea in most parts of Africa. This is because most passengers are basically not only concerned with being conveyed to their destinations safely and promptly; but also, the comfortability of the transportation experience

is equally an indispensable measure of passengers' overall satisfaction (Ojo, Mireku, Dauda & Nutsogbodo, 2014). Every passenger wants some level of comfort and relaxation while on transit; and so, the inability of providing passengers with a comfortable travel experience could be considered poor service quality by passengers which may affect their overall satisfaction and repeat patronage behaviours. This scholarly assertion suggests that passengers' comfort could influence overall passengers' satisfaction and loyalty to transportation service companies. This assertion corresponds with the study of Saw, Dissanayake, Ali and Bentotage (2020), which revealed that passenger satisfaction was significantly influenced by passengers' comfort. The assertion is also corroborated by the study of Nwachukwu (2014), which revealed that passengers' comfort had a significant impact on overall satisfaction of passengers with intra-city public bus transport services in Abuja. Similarly, the assertion is supported by the study of Nafiu, Hassan and Alogwuja (2018), which revealed that passengers' comfortability had a significant relationship with passengers' perceived satisfaction in Kogi State.

#### **Drivers' competence and passengers' loyalty**

Drivers' competence is the level of proficiency and expertise of transportation companies' drivers from origin to passengers' final destination (Nyongesa & Bwisa, 2014). A driver's competence encompasses his driving skills, length of driving experience and knowledge of travel routes, because only when a driver possesses these minimum capabilities will such a driver be considered competent (Pawlasova, 2015). Drivers' competence is essentially important in transportation services because it defines passengers' overall perception of the quality of service offered by transportation companies. As such, transportation companies with more competent and efficient drivers tend to enjoy more passengers' patronage and retention than those without competent drivers. This is so because an incompetent driver conveying passengers to their destinations will be incapable of guaranteeing passengers' safety and comfort during the transportation process, thereby leading to passengers' dissatisfaction (Budiono, 2009). As such, drivers' competency is the foundation that guarantees passengers of the reliability of the transportation service provider. This entails that drivers' competency or efficiency is a measure of service reliability that gives passengers confidence in the transportation service company's ability to satisfactorily and accurately meet their transportation service needs, in terms of conveying them safely to their final destinations in a timely manner (Amponsah & Adams, 2016). A competent driving experience will definitely be credited as a high-quality service experience that contributes to passenger satisfaction (Mouwien, 2015). The foregoing viewpoints suggest that drivers' competence, being a component of road transportation service quality, significantly influences passengers' satisfaction and repeat patronage intentions. These viewpoints are substantiated by the study of Nwachukwu (2014), which revealed that drivers' efficiency had a significant impact on overall satisfaction of passengers with intra-city public bus transport services in Abuja. The viewpoints are also in correspondence with the study of Nafiu, Hassan and Alogwuja (2018), which revealed that reliability (drivers' competence) of transportation service had a significant relationship with passengers' perceived satisfaction in Kogi State. Similarly, the viewpoints are substantiated by the study of Wang, Zhang, Zhu and Wang (2020), which revealed that drivers' reliability had a significant positive effect on passengers' satisfaction and loyalty.

#### **Travel time and passengers' loyalty**

Travel time is the time it takes for transportation companies to move passengers from source location to their final destinations (Ojo, Mireku, Dauda & Nutsogbodo, 2014). It is the amount of time that it takes a transportation service company to schedule passengers, and convey them to their preferred destinations through their transportation networks. Travel time also has to do with punctuality of transportation service delivery (Noor & Foo, 2014). It is taking passengers to where they need to go at the promised stipulated time without human or technical delays. Transportation service companies can improve their travel time by ensuring that journeys are scheduled and communicated to passengers in time; passengers and their luggage are processed for conveyance without delay; transportation vehicles are reliable and have adequate spare parts; and drivers follow designated routes with minimal expected time of delivery (Saw, Dissanayake, Ali & Bentotage, 2020). By implementing these measures, transportation service companies will be able to significantly reduce their travel time; and



enhance the satisfaction of their passengers, especially students, workers and business people, with shorter time to spend on activities like transportation. Travel time is an essential element in passengers' assessments of the quality of transportation services received because it is an indication of place utility. Passengers, especially commuters who go city to city for work or business people who must meet important business engagements, are usually very time-sensitive; and as such, consider the speed and punctuality of transportation companies as a measure of satisfaction (Horsu & Yeboah, 2015). The foregoing assertion implies that travel time, being a component of road transportation service quality, influences passengers' satisfaction and loyalty. This scholarly assertion is corroborated by the study of Nyongesa and Bwisa (2014), which revealed that travel time punctuality significantly and positively influenced passenger satisfaction in the public transport sector of Kenya. The assertion is also supported by the study of Budiono (2009), which revealed that travel time was significantly and positively correlated with overall passenger satisfaction with public bus transportation services in Jakarta. Similarly, the foregoing assertion corresponds with the study of Fonseca, Pinto and Brito (2010), which revealed that travel time (speed and punctuality) had a significant influence on passengers' satisfaction with public transport services.

#### **Vehicle cleanliness and passengers' loyalty**

Cleanliness of a vehicle is the degree of cleanliness of the exterior and interior sides of a transportation company's vehicle (Singh, 2016). It encompasses the degree of cleanliness of the interior as well as the exterior of a transportation vehicle, including the smell or fragrance prevailing within it. Vehicle cleanliness is an essential factor in passengers' patronage decision towards transportation service companies, because it contributes to passengers' comfort (Fonseca, Pinto & Brito, 2010). A vehicle with clean interior and exterior coupled with sweet scented interior fragrance enables passengers to relax and be calm during conveyance to their preferred destinations. As such, transportation companies around the world are rapidly taking steps to improve the cleanliness of their vehicles (Van-Lierop & El-Geneidy 2016). Interior vehicle waste disposal mechanisms are applied to ensure the neatness of vehicle interior; designated vehicle washers are hired to keep transportation vehicles clean before and after the journey; special car fresheners or fragrances are sprayed in transportation vehicles to eliminate bad smell and air-conditioning systems fitted with sweet fragrances are fixed in cars to improve interior smell of cars so as to enhance passengers' comfortability. This is because the state of cleanliness of a travel vehicle determines passengers' overall perception of the quality of services offered by a transportation company; and can influence passengers' patronage, satisfaction and repeat patronage intentions of public transportation companies (Noor & Foo, 2014). This entails that vehicle cleanliness, as a dimension of road transportation service quality, can significantly affect passengers' satisfaction and loyalty. This premise is supported by the study of Singh (2016), which revealed that vehicle cleanliness (clean environment inside buses) had a significant positive impact on overall passenger satisfaction with public transportation services in Lucknow City. The premise is also substantiated by the study of Pawlasova (2015), which revealed that vehicle cleanliness significantly influenced passengers' satisfaction with public city transport in The Czech Republic. Similarly, the premise is corroborated by the study of Wang, Zhang, Zhu and Wang (2020), which revealed that vehicle cleanliness had a significant positive effect on passengers' satisfaction and re-use intention.

#### **Empirical review**

Over the years, several studies have been conducted by researchers around the world to determine the influence of service quality dimensions on passengers' satisfaction and loyalty in the public transportation sectors of various countries. This study reviews and summarizes twelve (12) major empirical studies across various countries to examine the key service quality dimensions and findings of previous researchers as presented in Table 1.

**Table 1: Empirical review of relevant studies**

SN	AUTHORS	VARIABLES	FINDINGS
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1	Saw, Dissanayake, Ali and Bentotage (2020)	Security, safety, comfort, infrastructure quality and ticket purchase facilities	Security, safety, comfort, infrastructure quality and ticket purchase facilities had significant influences on passenger satisfaction
2	Nwachukwu (2014)	Comfort, service accessibility, drivers' efficiency and bus stop facilities	Comfort, service accessibility, drivers' efficiency and bus stop facilities had significant impacts on overall satisfaction of passengers with intra-city public bus transport services in Abuja
3	Nafiu, Hassan and Alogwuja (2018)	Reliability (drivers' competence), fare level and comfortability	Reliability (drivers' competence), fare level and comfortability had significant relationships with passengers' perceived satisfaction in Kogi State
4	Nyongesa and Bwisa (2014)	Travel time punctuality, availability of information, staff behavior and passengers' security	Travel time punctuality, availability of information, staff behavior and passengers' security significantly and positively influenced passenger satisfaction in public transport sector of Kenya
5	Singh (2016)	Passenger comfort, passenger safety, adequacy of capacity of public bus transport services, clean environment inside buses, elegant design of buses and bus stops, and service accessibility	Passenger comfort, passenger safety, adequacy of capacity of public bus transport services, clean environment inside buses, elegant design of buses and bus stops, and service accessibility had significant positive impacts on overall passenger satisfaction with public transportation services in Lucknow City
6	Pawlasova (2015)	Service continuity, passenger comfort, frequency, information availability, station proximity and vehicle cleanliness	Service continuity, passenger comfort, frequency, information availability, station proximity and vehicle cleanliness significantly influence passengers' satisfaction with public city transport in The Czech Republic.

- 7 Wang, Zhang, Zhu Functional service quality, Functional service quality, and Wang (2020) technical service quality, technical service quality, passengers' comfort, passengers' comfort, vehicle vehicle cleanness, drivers' cleanness, drivers' reliability and reliability and service service planning had significant planning positive effects on passengers' satisfaction and loyalty 8 Budiono (2009) Travel comfort, passenger Travel comfort, passenger security, drivers' security, drivers' competence competence and travel and travel time were time significantly and positively correlated with overall passenger satisfaction with public bus transportation services in Jakarta
- 9 Wojuade and Passengers' comfort, Passengers' comfort, service Badiora (2017) service reliability (drivers' reliability (drivers' reliability), reliability), passengers' passengers' security and service security and service accessibility significantly accessibility influenced users' satisfaction with bus services in Ibadan, Nigeria
- 10 Manikandan and Service planning (reliable Service planning (reliable Vanniarajan (2016) driving personnel, and driving personnel, and information availability), information availability), network, passengers' network, passengers' safety, safety, vehicle cleanliness, vehicle cleanliness, passengers' passengers' comfort and comfort and receptivity (service receptivity (service accessibility) had significant accessibility) effects on passengers' satisfaction with bus services in Tamilnadu, India
- 11 Fonseca, Pinto and Drivers' reliability, Drivers' reliability, security, Brito (2010) security, speed, comfort speed, comfort and punctuality and punctuality (travel (travel time) significantly influenced passengers' satisfaction with public transport services
- 12 Van-Lierop and El- Drivers' reliability, Drivers' reliability, passengers' Geneidy (2016) passengers' safety, safety, information availability information availability and vehicle cleanliness had and vehicle cleanliness significant correlations with passengers' satisfaction and retention in public transit services in Canada

## METHODOLOGY

For this study, cross-sectional survey research design was adopted. This facilitated the onetime collection of data from respondents within a very short period of time using a structured questionnaire, thereby minimizing the costs and time involved in data collection. The population of the study comprised passengers of public road transportation companies in Calabar, Cross River State, from which a sample size of 303 passengers was statistically determined using the Topman sample size determination method. The study adopted a convenience sampling technique with the aid of a 2-member team of enumerators to select respondents who participated in the questionnaire survey. The research instrument adopted to obtain data was an adapted 5-point Likert scale questionnaire, which comprised two sections; namely: Section A (which collected data on respondents' demographic characteristics such as age, gender, marital status and educational qualifications) and Section B (which contained statements drafted from the variables of the study: passengers' safety, passengers' comfort,



drivers' competence, travel time, vehicle cleanliness and passengers' loyalty). Questionnaire statements for passengers' safety (1 - 3) and comfort (4 - 6) were adapted from the study of Saw, Dissanayake, Ali and Bentotage (2020); questionnaire statements for drivers' competence (7 - 9) were adapted from the study of Nwachukwu (2014); questionnaire statements for travel time (10 - 12) were adapted from the study of Nyongesa and Bwisa (2014); while questionnaire statements for vehicle cleanliness (13 - 15) were adapted from the study of Pawlasova (2015). The instrument was checked for internal consistency, prior to field administration, through Cronbach's alpha reliability procedure. Table 2 provides information on the Cronbach's alpha coefficients generated for the study's variables; which indicate that the instrument was reliable and suitable for field administration. The data obtained from respondents were analyzed through descriptive statistics, while the study adopted multiple linear regression for hypothesis testing. The multiple linear regression model states thus:

$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$  Where:

$Y =$  Dependent variable (Passengers' loyalty)

$a =$  The intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5 =$  Coefficients of the independent variable

$X =$  Independent variable (Service quality)

$e =$  Error margin (5%)

Hence,

$X_1 =$  Passengers' safety

$X_2 =$  Passengers' comfort

$X_3 =$  Drivers' competence

$X_4 =$  Travel time

$X_5 =$  Vehicle cleanliness

**Table 2: Cronbach's Alpha Coefficients**

Variables	No. of items	Cronbach's coefficients	alpha
Passengers' safety	3	.722	
Passengers' comfort	3	.818	
Drivers' competence	3	.800	
Travel time	3	.773	
Vehicle cleanliness	3	.703	
Passengers' loyalty	3	.852	
	<b>18</b>		

*Source: Authors' computation via SPSS software (2021)*

## RESULTS AND DISCUSSION

The following null hypotheses developed for the study were subjected to statistical testing with the aid of multiple linear regression in the SPSS software:

- (i)  $H_0$ : Passengers' safety has no significant effect on passengers' loyalty of public transportation companies.
- (ii)  $H_0$ : Passengers' comfort has no significant effect on passengers' loyalty of public transportation companies.
- (iii)  $H_0$ : Drivers' competence has no significant effect on passengers' loyalty of public transportation companies.
- (iv)  $H_0$ : Travel time has no significant effect on passengers' loyalty of public transportation companies.
- (v)  $H_0$ : Vehicle cleanliness has no significant effect on passengers' loyalty of public transportation companies.

**Table 3: Model summary of the effect of service quality on passengers' loyalty of public transportation companies**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.764 <sup>a</sup>	.692	.687	.20567

a. Predictors: (Constant), Passengers' safety, passengers' comfort, drivers' competence, travel time and vehicle cleanliness

Source: Authors' computation via SPSS software (2021)

**Table 4: ANOVA<sup>a</sup> of the effect of service quality on passengers' loyalty of public transportation companies**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	90.757	5	18.151	99.731	.000 <sup>b</sup>
	Residual	40.391	222	.182		
	Total	131.148	227			

a. Dependent Variable: Passengers' loyalty

b. Predictors: (Constant), Passengers' safety, passengers' comfort, drivers' competence, travel time and vehicle cleanliness

Source: Authors' computation via SPSS software (2021)

**Table 5: Coefficients<sup>a</sup> of the effect of service quality on passengers' loyalty of public transportation companies**

Standardized						
Unstandardized Coefficients		Coefficients				
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.028	.100	17.286		.000
	Passengers' safety	.264	.029	.310	9.109	.000
	Passengers' comfort	.293	.024	.312	12.419	.000
	Drivers' competence	.278	.031	.333	8.865	.000
	Travel time	.012	.027	.009	.434	.664
	Vehicle cleanliness	.130	.017	.171	7.773	.000

a. Dependent Variable: Passenger's loyalty

Source: Authors' computation via SPSS software (2021)

## DISCUSSION OF FINDINGS

The results presented in Tables 3 to 5 show the effect of service quality on passengers' loyalty of public transportation companies. The results show that service quality has a 76.4 percent association with passengers' loyalty of public transportation companies ( $R = 0.764$ ). It also shows that up to 69.2 percent of the variance in the passengers' loyalty of public transportation companies can be predicted by service quality ( $R^2 = 0.692$ ). The relationship between service quality and passengers' loyalty of public transportation companies has also been found to be statistically significant (F-test = 99.731; p-value =  $0.000 < 0.05$ ). Also, given that passengers' safety (p-value =  $0.000 < 0.05$ ;  $t = 9.109$ ); passengers' comfort (p-value =  $0.000 < 0.05$ ;  $t = 12.419$ ); drivers' competence (p-value =  $0.000 < 0.05$ ;  $t = 8.865$ ); and vehicle cleanliness (p-value =  $0.000 < 0.05$ ;  $t = 7.773$ ), the results show that safety, comfort, drivers' competence, and vehicle cleanliness had significant positive effects on passengers' loyalty of public transportation companies. However, because travel time (p-value =  $0.664 > 0.05$ ), the effect of travel time on passengers' loyalty is statistically non-significant. Therefore, the findings of the study revealed that safety, comfort, drivers' competence, and vehicle cleanliness had significant positive effects on passengers' loyalty of public transportation companies; whereas, travel time had a non-significant effect on passengers' loyalty in this regard. The findings from the test of hypotheses one, two, three and five are supported by the

findings of related studies which revealed that safety, comfort, drivers' competence, and vehicle cleanliness had significant and positive influences on passengers' satisfaction and loyalty in public transportation sectors (Saw, Dissanayake, Ali & Bentotage, 2020; Nyongesa & Bwisa, 2014; Singh, 2016; Nwachukwu, 2014; Nafiu, Hassan & Alogwuja, 2018; Wang, Zhang, Zhu & Wang, 2020; Budiono, 2009; Fonseca, Pinto & Brito, 2010). However, the result from the test of hypothesis four runs contrary to the studies of Budiono (2009) as well as Fonseca, Pinto and Brito (2010), which revealed that travel time (speed and punctuality) had significant positive relationships with passengers' satisfaction with public bus transportation services. The implication of this finding is that passengers of public transportation companies in Calabar were not satisfied with the travel time of road transportation companies; and hence, their loyalty to transportation companies declined.

## **CONCLUSION AND PRACTICAL IMPLICATIONS**

Considering the imperatives of high-quality service delivery in the service industry, scholars have long conducted scores of studies to empirically assess the influence of service quality dimensions on customers' satisfaction and loyalty in order to determine effective ways to consistently enhance service quality. In public road transportation sectors around the world, empirical studies have been conducted by various researchers to examine the correlation between service quality dimensions and passengers' loyalty. Like previous studies, this research examined service quality and passengers' loyalty of public transportation companies. It sought to establish the effects of passengers' safety, passengers' comfort, drivers' competence, travel time and vehicle cleanliness on passengers' loyalty of public transportation companies. To that end, primary data were obtained from passengers of public road transportation companies using a structured questionnaire while data analysis and hypothesis testing were done using descriptive and inferential statistics. The findings of the study revealed that passengers' safety, passengers' comfort, drivers' competence and vehicle cleanliness had significant positive effects on passengers' loyalty to public transportation companies, while travel time had a non-significant effect on passengers' loyalty in this regard. The implication of these findings is that public road transportation companies can effectively improve passengers' loyalty towards their services by implementing service quality dimensions such as safety, comfort, drivers' competence, and vehicle cleanliness. Therefore, the study concludes that, to a large extent, service quality has a significant positive influence on passengers' loyalty to public transportation companies.

Consequently, public road transportation companies should improve passengers' safety by providing adequate park security for passengers and their luggage, and ensuring the safe transit of passengers to their preferred destinations. This will improve passengers' confidence, enhance passengers' satisfaction and encourage repeat patronage behaviour. Similarly, to enhance passengers' satisfaction and retention, public road transportation companies should consistently provide comfortable travel experiences to passengers by reducing passengers' crowd level in vehicles, providing air-conditioning systems to regulate vehicle temperature and adequate legroom space for passengers on transit. Also, public road transportation companies should improve drivers' competency by providing preliminary and on-the-job training to drivers to develop their driving skills, knowledge of road routes and interpersonal relationship-building skills with passengers. Using experienced and competent drivers to serve passengers will ensure that passengers' basic transportation requirements such as safety and comfort are satisfied, thereby increasing passengers' loyalty. Furthermore, the travel time of public road transportation companies should be reduced significantly by ensuring journeys depart in time as scheduled, and vehicles are in good technical condition to prevent roadside stoppages so that passengers can reach their preferred destinations promptly without delay. Consistently ensuring that passengers arrive at their preferred destinations promptly will increase passengers' satisfaction and loyalty in the long run. Finally, public road transportation companies should ensure that the interior and exterior sides of their vehicles are clean in order to provide comfortable travel experiences to passengers capable of ensuring passengers' satisfaction and repeat patronage.

### Limitations and Future Research

As much as this study tried to accommodate service quality dimensions in the transportation industry, it could not address all the service quality dimensions in this sector due to insufficient supporting literature. For generalizability purposes, there is need for more research that accommodates other service quality dimensions such as drivers' interpersonal relationships with passengers, service accessibility, and providers' responsiveness, among others. This study was also solely based on public road transportation service; hence, its findings and generalizations may not benefit other public transportation services such as railway, water transportation and air transportation. This creates the need for studies on other forms of public transportation, other than road transportation, to provide insights into the service quality dimensions in such sectors and their influences on passengers' loyalty. Overall, more studies are required to add credence to the findings of this study and bring new insights into existing scholarly discourse on service quality and passengers' loyalty intentions.

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