Passenger satisfaction and loyalty for app-based ride-sharing services: through the tunnel of perceived quality and value for money

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Abstract

Purpose – The purpose of this study is to investigate the passengers' perception of app or application-based ride-sharing service in Bangladesh. The research directly measures the passengers' perception of perceived quality and value for money of using app-based ride-sharing services in Bangladesh and how it impacts passengers' satisfaction. The study also measures the indirect relationship of perceived quality and value for money and passengers' loyalty through the mediating effects of passenger satisfaction in app-based ride-sharing services.

Design/methodology/approach – The authors used an online self-administered survey questionnaire to collect data from the respondents who have experienced app-based ride-sharing services in Bangladesh. In this study, 400 questionnaires were distributed to the respondents online (Google form) and received 281 useful responses that give a 70.25% response rate. The survey data were analyzed based on construct validity, convergent validity and structural equation modeling by using Smart PLS 3.

Findings – The research findings indicate that perceived quality and value for money positively and significantly influence passengers' satisfaction. The passengers' satisfaction has a direct and significant relationship with passenger loyalty. The research findings also indicate that perceived quality and value for money have an indirect relationship with passenger loyalty through the mediating effect of passenger loyalty in app-based ride-sharing services.

Practical implications – Both perceived quality and value for money have been the key drivers of passenger satisfaction and loyalty. Thus, the ride-sharing service providers should emphasize enhancing passenger value perception and quality service to reinforce passenger satisfaction and loyalty by increasing communication with the passengers about their apps. Besides, the service providers need to keep track of passengers' satisfaction levels and adopt necessary initiatives to ensure satisfied passengers toward loyalty.

Originality/value – Limited studies have investigated the impacts of perceived quality and value for money on passenger satisfaction and loyalty to app-based rideshare service. It is a suitable time as the research findings will help ride-sharing service providers enhance their quality performance to compete healthily. Simultaneously, passengers can enjoy improved, and value-added services due to increasing competition among the app-based service providers. Regulators can also emphasize passenger quality services and the importance of money as a proposition while formulating policy and regulations toward the management of ride-sharing companies.

Keywords Perceived quality, Value for money, Passenger satisfaction, Passenger loyalty, Ride-sharing service

Paper type Research paper

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1. Introduction

Urban traffic gridlock is a common incident in many countries worldwide (Steenbruggen *et al.*, 2014). Limited oil supplies, hiking gas prices, traffic congestion and increased awareness about environmental degradation are the main reasons people use personal vehicles more frequently. Private automobile usages are considered one of the main reasons for carbon dioxide emissions (Hensher, 2008). Associated with this is air pollution, which causes serious health problems in densely populated regions worldwide (Brunekreef and Holgate, 2002; Yang and Liu, 2018), especially in megacities like Dhaka, the Capital city of Bangladesh, a South Asian country. To optimize financial resources, convenience and time, city dwellers have resorted to ride-sharing services; the demand for services over the years has increased dramatically (Saranow, 2006; Watanabe *et al.*, 2016). The concept of "ride-sharing" arises from the efficient usage of empty car seats that commuters share vehicles as they travel from one destination to another; this increases occupancy rates per car usage, thus increasing economies of scale in the local transportation communication sector. In most cases, users of ride-sharing services use a common platform for interaction and communication (Chan and Shaheen, 2012), mostly an application. The application runs on automobile operating systems to facilitate the transactions to render transportation services to customers via users (Tsalgatidou and Pitour, 2001; Anderson 2014; Liu and Xu, 2019). Undoubtedly, app-based ride-sharing services improve the urban transportation system by minimizing traffic jams, fuel consumption and decreasing environmental pollution, including carbon dioxide emissions (Agatz *et al.*, 2010).

Since its inception, the recognition and usage of ride-sharing services are increasing rapidly worldwide, and a developing country like Bangladesh is not an exception. According to the Bangladesh Road Transport Authority, there are currently 24 ride-sharing companies providing services to millions of city dwellers (Hassan, 2017). The increasing demand for transportation at peak hours results in traffic congestion in many urban areas of Bangladesh, especially in Dhaka city. According to the Population Stat (2020), Dhaka city is considered one of the world's megacities in terms of its population (10.3 million). Because of its vast population and insufficient local transportation system, the city suffers from intense traffic congestion (Pucher *et al.*, 2005; Khan *et al.*, 2018). Traffic congestions kill time and thereby affects productivity, which directly impacts the country's economy by bringing the country to a standstill during peak times of work hours (Bovy, 2001; Yang *et al.*, 2019). Congestion, according to the World Bank, eats up 3.2 million working hours per day in Dhaka, and the average traffic speed has dropped from 21 km/ph to 7 km/ph in the last 10 years (Palma, 2019). Therefore, to tackle the situation, ride-sharing services have already become a relief to most of Dhaka's city dwellers, as it has eased the inhabitants' movement. In essence, it also has saved a significant amount of time for everyone commuting within the city. With a click on the app, commuters can book in rides and travel faster with quickness and ease.

Several ride-sharing services are offering their services in Bangladesh, and Uber is one of them. Since the first day of Uber's operation in Bangladesh, it has established itself as one of the major players in providing ride-sharing services. Uber mainly offers e¬¬-hailing service, which refers to the process of calling a car, taxi, motorbike or another form of transportation through its app on a smartphone (Rayle *et al.*, 2016). The company was founded in March 2009 by Garrett Camp and Travis Kalanick (Wirtz and Lovelock, 2016). It is not a taxi service, and Uber does not own any cars or vehicles (Bales and Woo, 2017), rather than it works as a common platform between car owners or drivers and consumers who want to help each other willingly (Wallsten, 2015). Uber offers its services in more than 900 cities, including Dhaka (Mamun, 2016; Uber, 2020). Uber started business in Bangladesh on November 22, 2016. Till then, the company is enjoying double-digit growth in Dhaka in terms of the numbers of drivers and riders over the last few years (Kumar *et al.*, 2018).

Moreover, according to Uber: it is the company's fastest growth for any city in Asia (Palma, 2019). Although Uber is enjoying its expansion and growth in Dhaka, passengers'

perception regarding their service is still unknown. Besides Uber, city dwellers also use other local ride-sharing services in Bangladesh, such as Pathao, Obhai, Shohoz, Piickme, Garivara, Taxiwala, etc. Increasingly, these local ride service providers are getting dependable among the ride service users day by day. Thus, this study aims to identify passenger perception from various aspects of app-based ride-sharing service. This study investigates the passenger perception of perceived quality and value for money toward passenger satisfaction and loyalty of app-based ride-sharing services.

2. Literature review

2.1 Perceived quality

Perceived quality refers to overall customers' perceptions of a particular product or service they received from the producers or service providers (Biedenbach and Marell, 2010; Shanahan *et al.*, 2019). According to Joung *et al.* (2016), perceived quality is critical to satisfying customer needs. Zeithaml (1988) views perceived quality as "the consumer's judgment about the product's overall excellence or superiority." The concept is also echoed by Bitner and Hubbert (1994) and, in their words, "global impression of the consumer on the relative superiority or inferiority of an organization and its services" (p. 7). Perceived quality analyzes customers' reactions toward product or service features, followed by a subjective perspective (Kwun, 2011; Souki *et al.*, 2019). Customers' perceived experience makes the customer the ultimate assessor of the product's respective product or service quality (Zhou and Zhang, 2018). The evidence of perceived quality in the ride-sharing context is receiving growing attention in current studies (Möhlmann, 2015). In previous research on Uber's service attributes such as passenger safety, convenience and pricing in the Malaysian context, it is observed that it has been found to have a positive effect on passenger satisfaction (Suhaimi *et al.*, 2018). Alternatively, in another research on bicycle ride-sharing in China, studies show that customer satisfaction depends on perceived service quality. Within the perspective of ride-sharing, perceived service quality to act as an antecedent for customer satisfaction remains to be explored. However, in the case of online car services for rental industries (Arteaga-Sánchez *et al.*, 2018), service quality remains a dominant factor in ensuring customer satisfaction. Hence, we hypothesize

H1. Perceived quality positively influence passenger satisfaction.

2.2 Value for money

The concept of "Value for Money" can be explained from the customer's perspective. Value for money can be defined as a tradeoff proposition between what customers pay and what they have received in return (Brennan *et al.*, 2017). It describes the monetary extent of the customer's perception regarding the overall service attributes of a good or service (Lee *et al.*, 2019). Value for money has been regarded as a critical variable for marketing managers to anticipate the level of customer satisfaction (Flint *et al.*, 2011; Penyalver *et al.*, 2019). An extensive literature review conducted by van Lierop *et al.* (2018) revealed that value for money is found as a driving factor of public transport's customer satisfaction. Lai and Chen (2011) stated that the service providers must differentiate between actual travel cost, users' value perception about price and service provider's spending pattern. Several studies have found a positive relationship between public transport passenger value perception regarding cost and their satisfaction level (Grujičić *et al.*, 2014; Mouwen, 2015). Konuk (2019) found a positive association between price fairness and restaurant's customers' satisfaction. Further, it can be noted that passenger value perception significantly affects loyalty (Imaz *et al.*, 2015; Atalık *et al.*, 2019). To satisfy the customer in the ride-sharing context, it is significant for the service provider company to increase its value for money perception. Xu (2020) argued that a

lower level of value for money and a lower degree of customer satisfaction are correlated. Rajaguru (2016) has found a positive and significant impact of value for money on customer satisfaction in the low-cost airline industry. Hence, we hypothesize that

H2. Value for money has a positive influence on passenger satisfaction.

2.3 Passenger satisfaction and loyalty

Customer satisfaction has been one of the crucial objectives of overall marketing activities (Dmitrovic *et al.*, 2009; Al-Omari *et al.*, 2020). It is also a salient factor in an organization's marketing activities (Kotler and Amstrong, 2004; Sezgen *et al.*, 2019). Customer satisfaction is a critical determinant of customer retention (Jin *et al.*, 2012). Relating to the satisfaction of transporting passengers, satisfaction reflects passenger experience after receiving a service compared to their predetermined expectation (Morfoulaki *et al.*, 2010; Li *et al.*, 2019). To provide better service to the prospective customers, it is equally significant to analyze passenger satisfaction (Anh *et al.*, 2020). Importantly, if passenger satisfaction level is maintained with a higher level of service, it will provide various benefits to the organization, such as repeated purchases (Cam *et al.*, 2019). As such, studies indicate that satisfied public transport users exhibit more intention to refer others to use the services (van Lierop and El-Geneidy, 2016). Hence, it has become a prerequisite for every ride-sharing business organization to understand and maintain passenger satisfaction (Justitia *et al.*, 2019). To date, several studies have been conducted on passenger satisfaction but very few studies conducted on passenger loyalty (van Lierop *et al.*, 2018). Passenger loyalty has been considered an inseparable strategic tool for business organizations to remain competitive in the market (Forgas *et al.*, 2010). It is argued that passenger loyalty is the consequential outcome of several vital factors, namely, quality service and satisfaction (Akamavi *et al.*, 2015). Several studies have found a positive association between happiness and passenger loyalty (Li *et al.*, 2018). For instance, Gallarza and Saura (2006) suggested that those customers are satisfied; they are more likely to exhibit a greater loyalty level in the traveling service context. Lee *et al.* (2017) noted a positive impact of passenger satisfaction on passenger loyalty in the cruise line industry. Namukasa (2013) evidenced that passenger satisfaction has been statistically associated with passenger loyalty in the airline industry. Ganiyu (2016) also found a similar positive relationship between passenger satisfaction and loyalty in the Nigerian airline industry in his empirical study. Therefore, based on these empirical studies, the following hypotheses were developed:

H3. Passenger satisfaction positively influence passenger loyalty.

H4. Passenger satisfaction mediates the relationship between perceived quality and passenger loyalty.

H5. Passenger satisfaction mediates the relationship between value for money and passenger loyalty (see Figure 1).

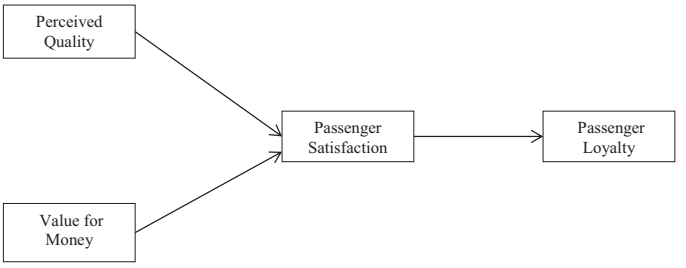

Figure 1.
Research framework

3. Methodology

The present study used a formative model developed based on the literature review's support and empirical evidence of the previous studies. This study used a self-administered survey questionnaire to investigate the passenger perception of app-based ride-sharing services in Bangladesh. This study used 14 items to measure perceived quality, value for money, passenger satisfaction and loyalty of app-based ride-sharing services. These research instruments (14 items) were adapted from previous studies such as perceived quality items were adapted from Parasuraman *et al.* (1988), value for money items from Rajaguru (2016), both passenger satisfaction and loyalty items were adapted from Suki (2014) and Ahrholdt *et al.* (2017). After adapted the research instruments, it was pretested by the experts of the research area. The survey questionnaire was developed based on five sections, namely, A, B, C, D and E. Section A refers to respondents' demographic information such as gender, age and occupation. Section B pertains to perceived quality, which consists of three items. Section C refers value for money that consists of four items. Section D is about passenger satisfaction, which consists of four items. Section E consists of three items that refer to passenger loyalty. From Sections B to E, all research variable items were measured by using a 5-point Likert scale to evaluate the responses. In this study, we communicated with the respondents through email, messengers, WhatsApp and social media networks (i.e. Facebook and LinkedIn). Initially, we asked the respondents whether they had experience with app-based ride-sharing services or not. Once they confirmed that they already used it recently, we requested them to participate in the survey. However, participation was volunteering, and the respondents had the option to withdraw their participation at any time. Initially, we distributed 400 self-administered survey questionnaires using Google form and received 281 useful responses that give a 70.25% response rate. After collecting the data, the study's research model and hypotheses were tested using structural equation modeling (SEM). Firstly, we analyzed the data's preliminary validity using the normality test, nonresponse bias test and standard method bias test. We then examined the construct validity and convergent validity to confirm the validity of partial least square-structural equation modeling (PLS-SEM) by using both SPSS 26 and SmartPLS 3.

4. Findings

4.1 Demographic profile of the respondents

In this study, 153 (54.4%) respondents were male, whereas 128 (45.6%) were female. Different age groups of the respondents participated in this study: 20 years or below (12.8%), 21–30 years (49.5%), 31–40 years (15.7%), 41–50 years (9.6%) and above 50 years (12.5%). Regarding occupation of the respondents, 38 (13.5%) respondents were self-employed, 24 (8.5%) respondents were lecturer, 37 (13.2%) respondents were government employee, 34 (12.1%) respondents were professional, 22 (7.8%) respondents were executive, 120 (42.7%) respondents were student and only six (2.1%) respondents were other occupations (see Table 1).

4.2 Measurement model

The purpose of the measurement model is to evaluate the reliability and validity of the manifest variables. In this reflective model, construct and convergent validity are tested based on outer loadings, Cronbach's alpha, composite reliability (CR) and average variance extracted (AVE). Outer loadings can determine to construct validity, and convergent validity is measured by Cronbach's alpha, CR and AVE. According to Henseler *et al.* (2009) and Götz *et al.* (2010), manifest variables with 0.7 or higher outer loading are considered satisfactory.

Description	Frequency	Percentage
Gender		
Male	153	54.4
Female	128	45.6
Age		
20 years or below	36	12.8
21–30 years	139	49.5
31–40 years	44	15.7
41–50 years	27	9.6
Above 50 years	35	12.5
Occupation		
Self employed	38	13.5
Lecturer	24	8.5
Government employee	37	13.2
Professional	34	12.1
Executive	22	7.8
Student	120	42.7
Other	6	2.1

Table 1. Demographic profile of the respondents

While 0.5 outer loading value can be acceptable, below 0.5 outer loadings should be dropped from the model (Chin, 1998; Hair *et al.*, 2010). Hulland (1999) argued that the outer loading value 0.4 can be acceptable, where Henseler *et al.* (2009) recommended construct loading values between 0.4 and 0.7 must be reviewed before dropping from the model. Cronbach's alpha and CR values should be 0.7 or higher for the convergent validity, and the AVE value must be 0.5 or higher. Table 2 illustrates outer loading values ranging from 0.716 to 0.893 (above 0.7), Cronbach's alpha varied from 0.714 to 0.830 (above 0.7), CR from 0.843 to 0.887 (above 0.7) and AVE from 0.643 to 0.643 (above 0.5) indicating strong evidence of consistency and reliability of the measurement model.

4.3 Structural equation modeling (SEM)

The present study used SEM to measure the theoretical framework and hypotheses via PLS. The PLS could handle many dependent and independent variables even though data are not normally distributed, and multicollinearity exists (Hair *et al.*, 2017; Shiau *et al.*, 2019). This method could be applied as a regression model or path model to determine the relationship between the dependent and independent variables (Hulland, 1999).

Based on the PLS-SEM results, it was observed that the path model was compatible with research data (Sarstedt and Cheah, 2019). The SEM results also indicate that passenger loyalty was contributed by passenger satisfaction by about 42%. On the other hand, passenger satisfaction was affected by perceived quality and value for money, approximately 51% in app-based ride-sharing (see Figure 2).

In PLS-SEM analysis, the bootstrapping approach was used to compute the significance of path coefficients. The significant levels of output can be found from the bootstrapping option. Figure 2 and Table 3 illustrates perceived quality ($\beta = 0.456$, $t = 4.062$, p-value $= 0.000$) and value for money ($\beta = 0.418$, $t = 4.774$, p-value $= 0.000$) have positive and significant influence on passenger satisfaction. Similarly, passenger satisfaction ($\beta = 0.644$, $t = 13.139$, p-value $= 0.000$) has positive and significant impact on passenger loyalty. Further, this study measures passenger satisfaction's mediating effects on the relationships of perceived quality and value for money with passenger loyalty. Based on the PLS-SEM analysis, it was observed

Variable items		Loading	Alpha	CR	AVE
Perceived quality			0.777	0.872	0.695
PQ1	App-based ride service provides its services at the time they promise to do so	0.745			
PQ2	App-based ride service provides safe transportation	0.857			
PQ3	App-based ride service drivers are always willing to help passengers	0.893			
Value for money			0.830	0.887	0.664
VM1	App-based ride service offers good service with reasonable charge	0.857			
VM2	App-based ride service experience is worth for money	0.854			
VM3	App-based ride service provides me with great value as compared to other services	0.797			
VM4	Compared to what I paid, the overall service of app-based ride-sharing fulfill my expectations	0.746			
Passenger satisfaction			0.814	0.872	0.644
PS1	I am satisfied with the transportation service of app-based ride	0.824			
PS2	I am always happy to choose app-based ride-sharing service	0.716			
PS3	I feel that my experience with app-based ride service enjoyable	0.824			
PS4	I believe app-based ride service would resolve any service failure	0.840			
Passenger loyalty			0.719	0.843	0.643
PL1	I am willing to take services from app-based ride service in future	0.794			
PL2	I will recommend my friends and associates to use app-based ride service	0.881			
PL3	I am willing to pay more if app-based ride service would provide better service	0.723			

Table 2.
Construct validity of the measurement model

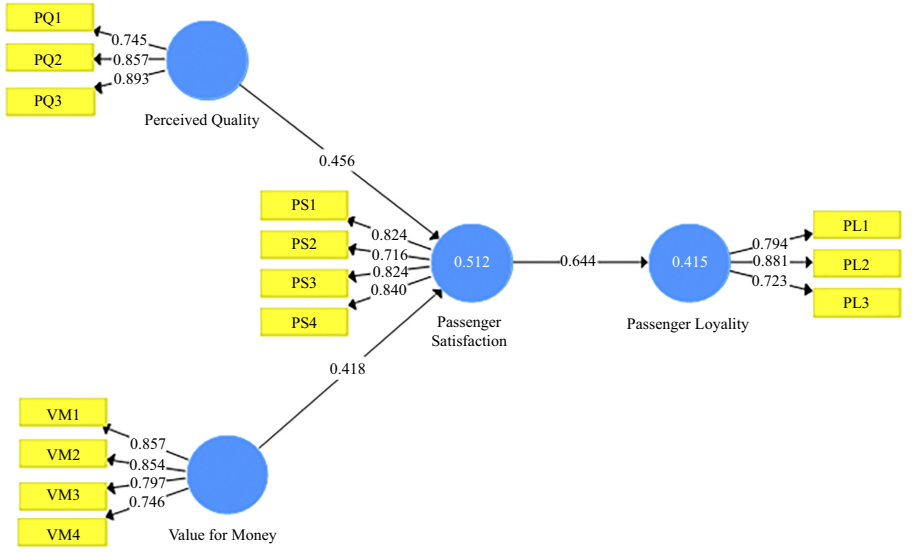

Figure 2.
PLS-SEM results

that passenger satisfaction has full mediating effect on the relationship between perceived quality and passenger loyalty ($\beta = 0.262$, $t = 3.217$, p-value $= 0.002$) and partial mediating effect on the relationship between value for money and passenger satisfaction ($\beta = 0.236$, $t = 3.564$, p-value $= 0.000$).

Thus, all coefficient relationship t-values were above ± 1.96, and then we can conclude that hypotheses H1, H2, H3, H4 and H5 were supported at a significant level ($p < 0.05$).

5. Discussion

The present research findings indicated that perceived quality significantly influences passenger satisfaction with app-based ride-sharing in Bangladesh. The research findings resemble the significance of perceived quality and passengers' satisfaction in the transportation and communication sector. Hussain *et al.* (2015) researched passenger satisfaction in Dubai airline services. Based on their research findings, perceived quality has a significant relationship with passenger satisfaction. Similarly, Hapsari *et al.* (2016) researched airline service quality in Indonesia, and their research outcomes indicate that perceived quality has a significant and direct relationship with passenger satisfaction. Another study conducted by Miranda *et al.* (2018) on passenger perception of railway service quality in Portugal and their research findings indicates that perceived service quality positively influences overall satisfaction. Aaker (1991) mentioned that perceived quality lends value to a brand in several ways. High-quality gives customers a good reason to buy the brand and allows the brand to differentiate itself from its competitors, charge a premium price, and have a strong basis for the brand extension.

The research findings also indicated that value for money positively and significantly impacts passenger satisfaction of app-based ride-sharing services in Bangladesh. Chiou and Chen (2010) conducted a study on airline service in China. Their research outcomes indicate that perceived value for money significantly influences behavioral intention toward passenger satisfaction. Similarly, Rajaguru (2016) researched airline service in Australia, and his research findings indicate that value for money has a positive and significant influence on passenger satisfaction. According to Wan *et al.* (2016), app-based ride-sharing service fare is relatively less costly and cheaper than other taxi services; hence it would be an affordable option for customers to choose app-based ride-sharing service over other traditional means of taxi services.

This research investigated the relationship between passenger satisfaction and passenger loyalty in an app-based ride-sharing service. The study also examined the mediating effects of passenger satisfaction on the relationships of perceived quality and value for money with passenger loyalty. The research findings indicate that passenger satisfaction has a positive and significant relationship with passenger loyalty. The research findings also suggest that perceived quality and value for money indirectly influence passenger loyalty through the mediating effect of passenger satisfaction. Gures *et al.* (2014) conducted a study on airline

Hypothesized path coefficient relationships		Coefficient (β)	t-value	p-value	Remarks
H1	Perceived quality → passenger satisfaction	0.456	4.062	0.000	Supported
H2	Value for money → passenger satisfaction	0.418	4.774	0.000	Supported
H3	Passenger satisfaction → passenger loyalty	0.644	13.139	0.000	Supported
H4	Perceived quality → passenger satisfaction → passenger loyalty	0.262	3.127	0.002	Supported
H5	Value for money → passenger satisfaction → passenger loyalty	0.236	3.564	0.000	Supported

Table 3. Hypothesized path coefficients

service in Turkey, and their research findings indicate that passenger satisfaction is a significant predictor of passenger loyalty. Similarly, Mokhlis (2016) investigated transportation research, and his research findings illustrate that passenger satisfaction has a positive linkage with repeat usage of transportation services. Another study conducted by Han *et al.* (2018) on duty-free shopping at the airport in South Korea and their research outcomes indicates that perceived quality indirectly influences customer loyalty through the mediating effect of customer satisfaction. According to Brexendorf *et al.* (2009), sustaining brand loyalty is a crucial challenge in increasingly competitive markets. Building brand loyalty requires investments in marketing programs that target current and potential consumers. Through marketing programs, brand loyalty can influence the consumers' mindset and influence brand awareness, attitude and behavior toward the brand. The app-based ride service providers need to set-up price fairness and create a more perceived value to influence passenger satisfaction and loyalty by repeating service and word of mouth.

6. Conclusion

The research findings have divulged that both service quality and value for money trigger of app-based ride-sharing service affects customer satisfaction and lead to a loyal customer. It does necessarily imply that customers value the service they are to receive and their cost to pay for ride-sharing service. This study also strives to add value to an overall understanding of customers' satisfaction and loyalty level who frequently choose ride-sharing platform over other means. Importantly, since the ride-sharing economy has been developing, the research findings can be instructional and frame of reference for ride-sharing service providing companies to enhance the number of loyal and satisfied customers to remain competitive in the market.

7. Theoretical implications

The research strived to identify the contributing variables of ride-sharing app-based passenger satisfaction and loyalty level, which was not well investigated regarding the sharing economy research context. The research framework depicted the significant, direct and indirect relationship between value for money, service quality, satisfaction and loyalty, leading to theoretical contribution to analyze the ride-sharing app-based passenger's behavioral actions from economic and service-oriented factors. The research framework importantly confirms the mediating impact of satisfaction on the interconnection between service quality and loyalty and between value for money and commitment, indicating that customers who avail app-based ride-sharing service tend to be more satisfied and loyal they would receive a higher degree of service quality. Furthermore, study results pointed out that passengers tend to be more contented and trustworthy if offered fair, reasonable and economic value for using ride-sharing services, as value for money has been evident as a significant determinant of passenger satisfaction loyalty. In harmony with past research studies in the transportation context (Nguyen-Phuoc *et al.*, 2020; Hapsari *et al.*, 2017), the study also offers sufficient confirmation of the significant and connected relationship between satisfaction and loyalty. Inarguably, general individuals tend to be loyal to those transport service providers who will maximize passenger's satisfaction.

8. Practical implications

The research study confirms that perceived quality and value for money significantly influence passenger satisfaction of app-based ride-sharing services, leading to passenger loyalty. The research findings have significant implications for the users, ride-sharing

companies and regulators. Ride-sharing services are a part of the newly established "shared economy" where resources are shared to maximize user satisfaction by optimizing financial and other resources. Since the evolution of the modern transport and communication sector, ride-sharing service is considered one of the revolutionary ideas of the current century. It provides satisfaction to customers and other stakeholders. Although in this study, providers' satisfaction level, like owners and drivers has not been measured, the satisfaction level of passengers indirectly relates to the satisfaction of direct service providers. Based on only two aspects, value for money and perceived quality the authors try to find out the loyalty, but in further research other elements to find out service quality can be added, like safety measures, payment method and availability at any time throughout the day. The authors believe this study will be beneficial for the ride-sharing service providers of the country and will encourage them to enhance their overall performance to compete in a healthy way. Ride-sharing companies can also communicate through their advertisement about the significance of their services' value for money. They can also suggest how they maintain their services' quality, which directly impacts passenger satisfaction. Innovative ways of providing services in this industry will create competitive advantages that will influence customers' and stakeholders' satisfaction.

Furthermore, customers' viewpoint regarding the value concept has been significant; hence it has been vital for the transport service providers to persuasively disseminate cost savings information with their service users (Lai and Chen, 2011). Both perceived quality and value for money have been the key drivers of passenger satisfaction and loyalty in this study. Thus, the ride-sharing service providers should emphasize on enhancing the degree of passenger value perception along with quality service to reinforce passenger satisfaction and loyalty. Also, the study result has accentuated the faction in retaining loyalty. Thus, the service provider should keep track of passengers' satisfaction levels and adopt necessary initiatives for ensuring satisfied passengers to maintain in business (Konuk, 2019). Regulators of ride-sharing companies can also mandate maintenance of the companies' quality of services and regulate services' costs to maintain value and services among the passengers. Improved and effective regulations will assist ride-sharing businesses to grow competitively and become a sustainable industry.

9. Limitations and future research

The current paper has some unavoidable limitations too. The study has considered both perceived quality and value for money as independent variables. Future research might be interested in examining the mediating effect of these variables on the relationship between passenger satisfaction and loyalty. The study's sample size is drawn only from the passenger's point of view. Future studies should draw samples from the ride service providers better to understand their perception regarding passenger satisfaction and loyalty. Gender differences and cross-cultural contextual factors were not measured in the study, which can be investigated further. Another limitation of the study is that the analysis is quantitative. Future studies could apply quantitative and qualitative tools (i.e. mixed methods) for more robust research findings.

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