



EFFECTS OF ENVIRONMENTAL IRREGULARITIES ON STABILITY AND SATISFACTION OF RIDE-HAILING OPERATORS IN LAGOS STATE.

KOLAWOLE, Ebiere PhD¹
LAWAL, Habib²

Abstract

In Lagos State, environmental anomalies including traffic congestion, poor road system, and inadequate security infrastructure have had impact on the viability and satisfaction of ride-hailing providers. The purpose of the study is to examine the effect of environmental irregularities on stability and satisfaction of ride-hailing Operators in Lagos. The survey research method was used, and the study used purposive sampling technique, with copies of questionnaire distributed to riders selected across six local government areas in Lagos State (Eti-Osa, Lagos Island, Mainland, Ikeja, Alimosho and Ikorodu). The study's findings revealed a positive and significant relationship between environmental irregularities, stability and satisfaction of ride hailing Operators. The study recommended among others that government should act as a matter of urgency, reviewing laws and tariffs on a friendly and manageable note, ensure better security network system and improve strategic road networks across all areas of the state for ride hailing Operators to enhance competitive advantage for their increased profits for incomes which would reduce the impact of commissions charged by e-hailing companies. This will help to improve the performance level in ride hailing operators. The study suggested that further research is encouraged on competitive advantage and strategies for increasing profits among ride hailing Operators

1.0 INTRODUCTION

Environmental issues have globalized recently, both in terms of their existence and effects as well as the socioeconomic forces that cause them. Although bad environmental conditions have been an issue for humans throughout history, industrialization and urbanization made what we now consider environmental problems more prevalent and obvious. For instance, air and water pollution from

¹ Department of Business Administration, Caleb University Imota, Lagos.
Ebiereoluwakemi@gmail.com

² Department of Business Administration, Caleb University Imota, Lagos.
lawalbayo18@gmail.com



manufacturing and crowded urban living conditions in the United States garnered increasing attention throughout the course of the last century and were acknowledged as important issues by the 1960s. Through the efforts of environmental scientists, activists, and policy-makers, concern over air and water pollution quickly spread to a variety of other situations, such as soil erosion, pesticide contamination, deforestation, dwindling animal populations and species, etc. These various issues eventually converged to become environmental issues (or environmental degradation). Evidence suggests that the capacity of the ecosystem to sustain itself is seriously threatened by the ongoing global environmental degradation. As a result, environmental sustainability has been given top emphasis in several areas, including housing, infrastructure, planning, land use, urban growth, and transportation (Aribigbola, 2015). Dimuna, (2010) both make it abundantly clear that the spatial organization of Nigerian cities, which developed before, during, and after colonial rule in the nation, made the introduction of modern infrastructural facilities extremely challenging and costly, particularly when dealing with regions that contained the majority of indigenous peoples' ancestral homes. Demographic experts also believe that Nigeria's urbanization rate, which is among the highest in the world at 5.3%, is likely to accelerate environmental degradation (Adegun, 2011).

New taxi services known as "ride-hailing" have started to appear in recent years, transforming the transportation environment and being viewed by some as the solution to some of society's transportation-related problems (Rayle, 2016). Transportation network companies (TNCs) match consumers in need of a ride with independent contractors who often provide a journey in their own vehicles by using an algorithm based on pickup and drop-off locations (Hughes and Mackenzie, 2016). TNCs are now among the most successful and valuable global start-ups and have increased their geographic reach into new cities. Scholars in a variety of fields have given the rise of ride-hailing services a great deal of attention, and it has been examined from several angles. Themes like equity and wellness (Jin et al., 2019), discrimination (Moody, 2019), tensions between traditional taxis and TNCs (Cooper, 2016), safety and security (Mulley, 2018), and employment rights have all been the subject of social research on ride-hailing. Pricing, job creation and employment, competition amongst TNCs, efficiency, and a wide range of other topics have all been the subject of economic research.



Numerous studies have concentrated on certain environmental effects such as vehicle miles traveled (VMT), traffic and congestion, carbon emissions, energy use, and parking demand. Some research has concentrated on difficulties linked to regulations in addition to the aforementioned dimensions. Others have tried to clarify technical and technological issues, such as the adoption of electric and driverless vehicles and ride-hailing algorithms. However, it appears that the literature on this topic is dispersed. Additionally, there is a lack of knowledge regarding the reported impacts of environmental anomalies on ride-hailing services as well as the potential and difficulties that these services pose for the future of urban development. With the development of ride-hailing services from an early niche innovation to a socio-technological system that accounts for a significant share of urban travel, they have become common in both developed and developing countries. These services account for 20% of city vehicle miles traveled and 15% of intercity trips in San Francisco, the city where ride-hailing first became popular (VMTs). The good and negative effects of this transportation innovation in cities have been the subject of numerous studies. Understanding the effects of this transportation innovation can provide sufficient information to make effective management and legislative decisions because it can assist communities in addressing a variety of social, economic, and environmental issues like climate change, energy, segregation, and poverty.

In New York City, ride-hailing journeys now outweigh taxi travels by more than two to one (Schneider, 2019); similarly, on an average weekday in San Francisco, intracity ride-hailing trips outnumber taxi rides by a factor of 12. (SFCTA 2017). Even though ride-hailing still makes up a small portion of all vehicle travel, data from 2018 for six major US cities shows that such trips make up 2 to 13% of car miles in the downtown districts (Fehr and Peers 2019). The ability of ride-hailing companies to sidestep many of the regulatory restrictions imposed on conventional taxis has contributed to this extraordinary surge (James 2018). Cities throughout the world are struggling to cope with the effects of the expansion of the ride-hailing sector, which are particularly noticeable in metropolitan cores and include decreased mass transit use and rising traffic. Additionally, the industry's ongoing expansion brings a greater difficulty: environmental abnormalities.



1.1 OBJECTIVES OF THE STUDY

The major aim of the study is to examine the effect of environmental irregularities on stability and satisfaction of ride-hailing operators in Lagos. The specific aim of the study;

To determine the extent to which traffic issues affects ride -hailing patronage.

To explore how laws and tariffs shrinks down the profitability of ride-hailing operators.

To determine the extent to which road network hampers service delivery of ride-hailing operators.

To analyse the current security conditions and situations, and its adverse effect on ride hailing operators.

1.2 STATEMENT OF RESEARCH QUESTIONS

In order to accomplish the objectives of the study, the following research questions were formulated;

To what extent are traffic issues affecting ride-hailing patronage?

How are laws and tariffs shrinking down the profitability of ride- hailing operators?

To what extent is road network hampering service delivery of ride- hailing operators?

Does the security condition and situations have adverse effect on ride- hailing operators?

1.3 RESEARCH HYPOTHESEIS DEVELOPED

Hypothesis I

H₀₁: Traffic issues does not significantly act negatively on ride hailing patronage

Hypothesis II

H₀₂: Laws and tariffs does not significantly shrink down the profitability of ride hailing operators

Hypothesis III

H₀₃: The road network does not hamper the service delivery of ride hailing operators

Hypothesis IV



H₀₄: The security condition and situation does not significantly have adverse effect on ride hailing operators.

2.0 LITERATURE REVIEW

Environmental Factors Affecting Ride Hailing Services

In order to understand how San Francisco's traffic might change if ride hailing services did not exist, researchers from the University of Kentucky and the San Francisco County Transportation Authority conducted their study. They compared the outcomes to actual traffic data from 2016 and a baseline from 2010 after simulating city traffic conditions in 2016 without ride hailing (before the proliferation of ridesharing services). Their findings, which were published in *Science Advances* in 2019, show that ridesharing is the main cause of traffic jams in San Francisco. The effects of ride-hailing outweigh those of other factors like population growth, shifting job markets, and new infrastructure in explaining part of the rising congestion. The study found that ride-hailing services reduced average speeds in San Francisco and increased the number of miles and hours driven by vehicles as well as the number of hours they were delayed. Contrary to what ride-hailing firms claim, the study also shows that most ride-hailing journeys result in the addition of more vehicles to the road, which lengthens travel times. The regular curbside pick-ups and drops-off of clients further obstruct traffic flow.

Additionally, it appears that ridesharing changes people's behavior in ways that worsen congestion. Researchers discovered that people exacerbated the traffic issue by using ride-hailing services when they would have otherwise chosen to walk, cycle, or take public transportation. The prevalence of ride-hailing services had little impact on car ownership rates, which remained stable throughout the study period. Researchers did discover some positive outcomes connected to ridesharing. For instance, ridesharing seems to support and promote rail travel. It does, however, face competition from other types of public transportation, particularly buses. Additionally, there is some proof that ride splitting — where several individuals take the same ride — can really ease traffic. But most people who use ride-hailing do so alone. In other cities, this option is only utilized between 13 and 20 percent of the time, despite the fact that this study did not measure rates of ride splitting in San Francisco. For cities like Lagos that are



attempting to lower their carbon footprints, the study's findings are instructive. Nearly one-third of the United States' greenhouse gas emissions come from the transportation sector. Light-duty vehicles, such as private cars, are responsible for around 60% of the emissions in this industry. Therefore, reducing traffic congestion is essential for reducing climate change. Cities will need to think about what transportation plans will put them on the path to a sustainable future in order to attain fewer carbon emissions.

Risk Perception

The idea of consumer perceived risk, or simply perceived risk, has been acknowledged as a crucial component of consumer decision making (Parka and Ahn, 2004). Every consumer action will have repercussions that cannot be foreseen by anything that can be predicted. And one of these effects can be disappointing. This claim inspires other scholars to carry out additional research in order to better understand the idea of perceived risk. A construct was developed to explain consumer behavior phenomena like knowledge retrieval, brand loyalty, and trust in others when the idea of perceived risk was first established. This construct's fundamental concept is not novel; rather, it draws inspiration from statistical theories, psychology, and economics. According to these beliefs, perceived risk is linked to particular circumstances that could either be favorable or bad. Contrarily, in consumer behavior, the idea of risk simply emphasizes the potential for bad things to happen. The understanding of risk in consumer behavior and the concept of risk employed in other disciplines will differ significantly on the basis of this potential negative outcome (Azuh, 2011). Since Bauer's work introduced perceived risk in 1960, it has been an important factor in research on technology acceptance and service purchasing behavior. As the variety and complexity of transactions rise, so do the types of perceived risk that have been studied. The perceived risk hypothesis first concentrated on perceived danger in physical services. Nathan (2008) defined perceived risk for services in general as social, financial, physical, performance, time, and psychological risk. His work served as the basis for other studies on perceived risk. As electronic commerce developed and spread, attention was drawn to online customer choices. Product risk, financial risk, and information risk were found to be the three most common perceived dangers in online buying by Bhatnagar, Misra, and Rao in 2000. The perception of risk as a role in people's acceptance of various



technologies was also looked at. Online banking's perceived benefits and the financial, security/privacy, performance, social, and time risks were used by Lee (2012) to merge the technological acceptance model and theory of planned behavior. The adoption of cutting-edge information technology and consumer purchasing decisions are both necessary for the use of sharing economy services. Along with the perceived hazards that were the subject of earlier research (Parka and Ahn, 2004), users of sharing economy services must also deal with unfavorable social impacts. Although several studies show that consumers' buying decisions are influenced by concerns about justice, prior research on perceived risk has primarily focused on personal rather than social considerations (Brown, 2019).

Concerns regarding the intentional exploitation of private information, such as name, phone number, credit card information, and geolocation data, which are typically necessary for accessing sharing economy services, are important to perceived privacy risk. Consumers may suffer financial, physical, or reputational harm as a result of improper management or illegal hacking of personal information (Featherman and Pavlou, 2003). Second, mistrust of service providers can arise from perceived performance risk due to lax qualification standards for service providers, one of the advantages of the sharing economy feature that encourages their involvement and expands the pool for matching supply and demand (Botsman, 2013). Third, the extent of compensation offered for potential incidents that can arise while utilizing the service is connected to anticipated conflict risk. Consumers may worry that there aren't any laws guaranteeing full recompense in the event of financial loss or lost time (Lee et al., 2016). The perceived risk that the dynamism of markets would violate one's values for distributive fairness can also affect consumers' decisions. When service consumers are happy with the results of resource allocation or profit distribution between intermediaries and service providers of the sharing economy, similar to the idea of Fair Trade, distributive justice is achieved from the perspective of fairness-conscious consumers (Smith, Bolton, and Wagner, 2010). Consumers often prefer services that can result in fair results between intermediaries and stakeholders, even if the conclusion does not directly result in any short-term cash or time losses for them.



Personal Innovation

Innovation can be defined as the degree to which a person adopts a new idea more quickly than other system participants (Bailey, Rogers, & Shoemaker, 2018). The process by which a person's internal creative thoughts, as described externally, grow in order to produce new ideas. According to Yi, Fiedler, and Park (2006), individual innovativeness is a continuous trait or attitude that affects how a person feels and responds to an innovation, with a higher level of individual innovativeness resulting in a more favorable reaction. Personal innovation demonstrates a person's openness to change (Hurt, Joseph, & Cook, 2015). Personal Innovative in IT (PIIT) is a term used to describe a person's readiness to experiment with new information technology (Agarwal & Prasad, 2018). The PIIT scale was subsequently created and verified. In actuality, recognizing one's own innovativeness can assist in identifying those in businesses that frequently adopt information technology before others and engage in distinctive ways as change groups to promote new technologies (Agarwal & Prasad, 2018). In the past, a person had a variety of options for getting around an urban region. People now have more options thanks to new travel options made possible by new business and technological models. The ease of hailing a ride from your phone, splitting the cost of a journey with a colleague, or picking up a bike outside your house has helped ride-sharing rise to the top of the sharing economy. By 2025, PwC projects that the five primary sharing economy sectors—transportation being one of the biggest—will produce \$335 billion in worldwide sales. It will be propelled to match the revenues produced by the conventional retail industries by this potential revenue. The transportation industry is one of the most promising for investment prospects, according to Frost & Sullivan.

Vehicle ownership will cease to be the primary mode of transportation and will instead take up a decreasing portion of the transportation market, according to McKinsey & Company. Due to this change, governments will be forced to regulate ride-sharing services like Uber so that they can compete fairly in a market that was previously controlled by taxi businesses. Ride-sharing must be accepted by cities as a permanent fixture. Instead of combating ride-sharing, governments should consider how to incorporate new modes of transportation into the existing



transit system and develop a multimodal system. Platform-based business models are being used by businesses to boost output, guarantee the effective use of their resources, and reduce capital investment. In actuality, the majority of platform-based companies do not own the assets essential to their operations. Sharing economy businesses like Uber and Airbnb, which profit off the low personal use rates of automobiles and extra bedrooms, respectively, are good examples of this.

Satisfaction and Stability in the Ride Hailing Industry

Customer satisfaction is a measure of the operators' degree of service quality, and in this market segment, service quality determines outcomes (Wilson A., 2008). According to Button and Hensher's (2001) analysis of the transportation industry's indicators, price has an impact on how customers can afford the services and fares that are provided. In the specific movements, price was sacrificed or given up in order to receive a good or service. Price therefore acts as a key mechanism in the provision of services. It also considers the cost versus the quality of the services provided. However, due to lower fees as outlined in the schedules, the e-hailing operators are able to accommodate the clients and the services may be compared to the cost. According to Zeithaml (2019) and Abdulaziz (2014), confidence is the knowledge, politeness, and capacity employees have to transmit faith and acclaim from clients in their industry. In addition to the convenience for clients as previously said, assurance also refers to the reliability, punctuality, and overall condition of the vehicles. Customer expectations and satisfaction are tied to comfort as perceived in the services. The logistics management studies that are needed, according to Prapinit, Sabar, and Melan (2019), are needed to make sure that the E-Hailing drivers are required to manage and be dedicated to their personal obligations towards customers. The ability to provide the service with consistency, promptness, and dependability is referred to as reliability. When it comes to transportation services, reliability starts with the arrival times at the destination, taking into account the distance traveled, infrastructures, communications, and planned routes. These were crucial factors to take into account for the e-hailing service quality aspects (Mcknight, 2018). The capacity to deliver the promised service consistently and accurately is another aspect of dependability. Reliability also refers to the ability to be trusted or believed as a result of performing the tasks of e-hailing services well. The majorities of clients



approve the services and use grab as their way of transportation. In their 2017 study, Omotayo and Melan, they identified the variables that affect logistics organizations' use of information technology. The significance of information technology, which affects the best coordination and movements in the transport business or services, was also mentioned. A person's appearance, physical surroundings, such as a location, decorations, exhibition, equipment, and personal and communication items, are all considered tangible. It was tangible material or substantial; it could be touched. On the other hand, e- hailing services come with modern cars, communication tools, devices, and invoicing and payment systems. The internal and external appearance, organization, and cleanliness of the e- hailing services are all good. Future passengers like to ride in vehicles that are less than five years old. This is done to make sure that buyers are content with the product's tangibility and that they are satisfied Melan, Zahid, and Sabar's (2019) discussion of the efficiency of machinery in the transportation sector focused on overall assets of such vehicles and equipment. On the other hand, a new vehicle can be deployed further and for longer periods of time without difficulty or disruption. Other studies focusing on service frequency, dependability, responsiveness, and convenience are vital in addressing customers' satisfaction (Akanmu, Hassan, & Bahaudin, 2020; Cavana, 2007).

We therefore want to estimate the strategic motivations for both drivers and passengers given the range of pricing strategies. We base our analysis on the fundamental premise that drivers and passengers respond to price on various timelines. Informally, when shown the stated fee for a ride, passengers immediately answer (e.g., when they open a ride-sharing app on their phone). On the other hand, we assume that drivers are sensitive to their profits during a specific time period (cf. the Introduction) (e.g., several hours, a day, or a week). This is driven by the fact that the majority of drivers on ride-sharing platforms roughly commits to their schedules over these longer time frames and manage their level of activity based on the expected overall profits from driving. Most people agree that technological advancements are crucial to the availability of ridesharing and other sharing services (Agatz et al., 2012). For instance, these technological advantages of ridesharing include the ability to view the real-time position of the vehicle and information about the driver or captain. One of the main reasons people utilize sharing services, according to earlier study



(Hawlitsek et al., 2016; Belk, 2010), is because they trust the services. All respondents had favorable opinions and specifically stated a good association between the degree of trust, transparency, and customer satisfaction when comparing the information transparency of ridesharing services to regular taxi services.

Bolt offers a variety of tools for resolving disputes or complaints, including direct email, phone calls, and mobile chat. The majority of concerns were satisfactorily resolved, according to the majority of respondents, who said they had at most gotten responses to their complaints within a 24-hour period. One respondent described the following experience, citing a unique case:

'It's a great ride-share app and I have enjoyed using, nevertheless like every good thing could do with a few improvements. Riders should be able to rate their ride from within the history at a later time because it's not always possible to give a rating immediately the trip ends and those ratings are important, they're part of what helps to ensure quality is maintained on the service' (Lawal,2022).

2.1 THEORETICAL FOUNDATION

The theoretical overview outlines the present theories, their relationships, and the amount of study that has gone into the ideas in order to use them to clarify, explain, and predict future events. Expectation theory is employed in the investigation.

Open System Theory

Open systems theory basically refers to the idea that environments have a significant impact on companies. Other organizations that exert diverse economic, political, or social factors make up the environment. The environment also offers crucial resources that help a business survive and change. After World War II, open systems theory was created in response to earlier views of organizations, such as Elton Mayo's human relations viewpoint and Henri Fayol's administrative theories, which primarily treated the organization as a self-contained unit (Scott, 2002). The open systems perspective is used by almost all contemporary theories of organization. As a result, there are various open systems theories. For instance, proponents of contingency theory contend that organizations are set up in ways



that best suit the environments in which they operate. Organizations, according to institutional theorists, are a vehicle for society values and beliefs to be ingrained in organizational structure and manifested through organizational change (Pfeffer, 2003). According to resource dependency theorists, an organization must adjust to the environment in order to meet the demands of its resource suppliers. Although open systems theories offer a wide range of viewpoints, they all share the idea that an organization's ability to survive depends on how it interacts with its environment (Galbraith and Lawler, 1993).

3.0 METHODOLOGY

This study adopts survey research design. The design has a function of ensuring that evidence obtained in the study helps a researcher to answer the research questions as clearly as possible (Robson, 2002). This is therefore quantitative in outlook. The population of the study comprises of ride hailing operators across six local governments in Lagos State (Eti-Osa, Lagos Island, Lagos Mainland, Ikeja, Alimosho and Ikorodu). Purposive sampling was used to select the respondents for this research. For this study, the population is divided into six local government areas of Lagos State where ten operators were selected from each local government. This made it possible to answer the research questions and achieve the objectives of the study. A sample is referred to as the percentage or fraction of the population that answers the research questions. The size of the sample is largely determined by calculating what could be achieved with the resources available during the limited duration of the study. Since sampling is a subset of the population of interest to the researcher, the sample for the study was 60 ride-hailing operators.

The research made use of primary and secondary sources of data collection. The research was carried out by the use of a questionnaire. The vital goals of a questionnaire are to collect accurate data with maximum reliability and validity, and to obtain information relevant to the objectives of the study. The Likert scale was employed since it is deemed to be an excellent means of measuring the attitude of respondents towards an attribute. The Likert scale is user friendly and reduces uncertainty, confusion and misunderstanding. The SPSS software was used for this analysis. Data was presented in tabular form and narrative form in



analyzing the data, mean and standard deviation were used as a way of assessing the relationship between hypotheses.

4.0 DATA PRESENTATION AND ANALYSES

The research questionnaires were administered to sixty (60) ride- hailing operators and used for the analysis.

Analyses of Research Objectives

Survey results of this study were analyzed using the SPSS statistical program. Frequency distribution and percentages were obtained based on the respondent's responses for each item as regards leadership strategy and organizational growth. The analysis will be based on the objectives, research questions and hypotheses raised for the study.

THE EXTENT TO WHICH TRAFFIC ISSUES AFFECTS RIDE HAILING PATRONAGE

	A	SA	U	D	SD	Total
Ride hailing vehicles contributes to traffic congestion in the central areas of cities	12	24	2	11	11	60
	20%	40%	3.3%	18.3%	18.3%	100%
There is a higher travel time occupation rate which affects profitability	24	12	0	13	11	60
	40%	20%	0%	21.7%	18.3%	100%
Road congestion prevents drivers from picking passengers during peak Hours	30	15	0	10	5	60
	50%	25%	0	16.9%	8.3%	100%
Longer deadheading distance generated by ride hailing vehicles results inn traffic jams	33	12	0	13	2	60
	55%	20%	0%	21.7%	3.3%	100%

Source: Survey Field, 2022

Explanation

From the table above, question one reveals that 12 respondents representing 20% agreed that ride hailing vehicles contributes to traffic congestion in the central areas of cities, 24 respondents representing 40% strongly agreed, 2 respondents representing 3.3% were undecided and 11 respondents representing 18.3% disagreed while 11 respondents representing 18.3% strongly disagreed. Question two shows that 24 respondents representing 40% agreed that there is a higher travel time occupation rate which affects profitability, 12 respondents representing 20% strongly agreed, 13 respondents representing 21.7% disagreed while 11 respondents representing 18.3% strongly disagreed. Question three

reveals that 30 respondents representing 50% agreed that road congestion prevents drivers from picking passengers during peak hours, 15 respondents representing 25% strongly agreed, 10 respondents representing 16.9% of respondents disagreed while 5 respondents representing 8.3% strongly disagreed. Question four shows that 33 respondents representing 55% agreed that longer deadheading distances generated by ride-hailing vehicles results in traffic jams, 12 respondents representing 20% strongly agreed, 13 respondents representing 21.7% of respondents disagreed while 2 respondents representing 3.3% strongly disagreed.

HOW LAWS AND TARIFFS ARE SHRINKING DOWN THE PROFITABILITY OF RIDE HAILING OPERATORS

	A	SA	U	D	SD	Total
The commission rates charged by service entities is high	29 48.3%	21 35%	0 0%	7 11.7%	3 5%	60 100%
There are difficulties in obtaining driver's badge issued by the government	20 33.5%	17 28.3%	0 0%	12 20%	11 18.3%	60 100%
E-hailing companies force drivers to comply with the Lagos State Regulations which is almost non-functional	19 31.7%	8 13.3%	2 3.3%	15 25%	16 26.7%	60 100%

Source: Survey Field, 2022

Explanation

From the table above, question five reveals that 29 respondents representing 48.3% agreed that the commission rates charged by service entities is high, 21 respondents representing 35% strongly agreed, 7 respondents representing 11.7% disagreed while 3 respondents representing 5% strongly disagreed. Question six shows that 20 respondents representing 33.3% agreed that there are difficulties in obtaining driver's badge issued by the government, 17 respondents representing 28.3% strongly agreed, 12 respondents representing 20% disagreed while 11 respondents representing 18.3% strongly disagreed. Question seven reveals that 19 respondents representing 31.7% agreed that e-hailing companies force drivers to comply with the Lagos State regulations which is almost non-functional, 8 respondents representing 13.3% strongly agreed, 2 respondents representing 3.3% were undecided, 15 respondents representing 25% of respondents disagreed while 16 respondents representing 26.7% strongly disagreed.



THE EXTENT TO WHICH ROAD NETWORK HAMPERS SERVICE DELIVERY OF RIDE HAILING OPERATORS

	A	SA	U	D	SD	Total
Bad road networks add up to high maintenance costs of ride hailing vehicles	22	20	0	10	8	60
	36.7%	33.3%	0%	16.7%	13.3%	100%
Poor road networks in Lagos State add up to the fatality rate of cars	25	17	0	11	7	60
	41.7%	28.3%	0%	18.3%	11.7%	100%
Poor road conditions hinder mobility of goods and people in urban centers	37	10	1	2	10	60
	61.7%	16.7%	1.7%	3.3%	16.7%	100%

Source: Survey Field, 2022

Explanation

THE CURRENT SECURITY CONDITIONS AND SITUATIONS AND ITS ADVERSE EFFECT ON RIDE HAILING OPERATORS

	A	SA	U	D	SD	Total
Police harassment causes low rating of drivers on the e- hailing platforms	36	8	0	4	12	60
	60%	13.3%	0%	6.7%	20%	100%
Activities of hoodlums results in low revenues and patronage	22	10	22	3	3	60
	36.7%	16.7%	36.7%	5%	5%	100%
Insecurity on roads has led to the massive loss of human and material resources	23	12	0	10	15	60
	38.3%	20%	0%	25%	10%	100%

Source: Survey Field, 2022

Explanation

From the table above, question eleven reveals that 36 respondents representing 60% agreed that Police harassment causes low rating of drivers on the e-hailing platforms, 8 respondents representing 13.3% strongly agreed, 4 respondents representing 6.7% disagreed while 12 respondents representing 20% strongly disagreed. Question twelve shows that 22 respondents representing 36.7% agreed that the activities of hoodlums results in low revenues and patronage, 10 respondents representing 16.7% strongly agreed, 22 respondents representing 36.7% were undecided, 3 respondents representing 5% disagreed while 3 respondents representing 5% strongly disagreed. Question thirteen reveals that 23 respondents representing 38.3% agreed that insecurity on roads has led to the massive loss of human and material resources, 12 respondents representing 20%



strongly agreed, 10 respondents representing 16.7% disagreed while 15 respondents representing 25% strongly disagreed.

4.3 Analyses of Research Hypotheses

HYPOTHESIS 1

H₀₁: Traffic issues does not significantly act negatively on ride hailing patronage.

H₁₁: Traffic issues significantly act negatively on ride hailing patronage.

Descriptive Statistics	Mean	Std. Deviation	N
<i>Traffic issues</i>	2.3906	1.31157	60
<i>Ride-hailing patronage</i>	2.3125	1.33251	60

Correlations

Traffic Issues			<i>Ride-hailing patronage</i>
Traffic Issues	Pearson Correlation	1	.772**
	Sig. (2-tailed)		.000
	N	60	60
Ride-hailing patronage	Pearson Correlation	.772**	1
	Sig. (2-tailed)	.000	
	N	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

INTERPRETATION

The primary investigation hypothesis which communicates that traffic issues does not significantly act negatively on ride hailing patronage was taken a stab at using a Pearson relationship. The Pearson Correlation investigation depicted the strength and direction of straight association between dependent and independent variables. Considering the investigation, sixty respondents were outlined. Traffic issues (Mean: 2.3906; SD: 1.31157) and ride hailing patronage (Mean: 2.3125; SD: 1.33251). In the meantime, association coefficient worth of .772** exhibiting a strong and positive relationship between the variables. The p-value is 0.000 which is not by and large the basic worth of 0.05 showing that there is gigantic association between traffic issues and ride hailing patronage. This construes that the invalid hypothesis is excused which communicates that traffic issues does not significantly act negatively on ride hailing patronage and remembering that the substitute hypothesis is recognized at 5% level of significance. It is thus construed that Traffic issues significantly act negatively on ride-hailing patronage.



HYPOTHESIS 2

H₀₂: Laws and tariffs does not significantly shrink down the profitability of ride hailing operators
 H₁₂: Laws and tariffs significantly shrink down the profitability of ride hailing operators.

Descriptive Statistics	Mean	Std. Deviation	N
<i>Laws and tariffs</i>	2.0697	1.11157	60
<i>Profitability</i>	2.1254	1.13251	60

Correlations

Laws and tariffs	Pearson Correlation	1	.772**
	Sig. (2-tailed)		.000
	N	60	60
Profitability	Pearson Correlation	.772**	1
	Sig. (2-tailed)	.000	
	N	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Result Output

INTERPRETATION

The Pearson Correlation investigation depicted the strength and heading of direct association between the variables. Considering the examination, sixty respondents were outlined. Laws and tariffs (Mean: 2.0697; SD: 1.11157) and profitability of ride hailing operators (Mean: 2.1254; SD: 1.13251). Meanwhile, association coefficient worth of .772** exhibits a strong and positive relationship. The p-value is 0.000 which is not actually the basic worth of 0.05 meaning that there is significant association between the variables. This recommends that the invalid hypothesis is excused which communicates that Laws and tariffs does not significantly shrink down the profitability of ride hailing operators and remembering that the alternative is recognized at 5% level of significance. It is



hence construed that Laws and tariffs significantly shrink down the profitability of ride hailing operators

HYPOTHESIS 3

H₀₃: The road network does not hamper the service delivery of ride hailing operators

H₁₃: The road network hampers the service delivery of ride hailing operators

Descriptive Statistics	Mean	Std.	
		Deviation	N
<i>Road network</i>	2.3919	1.31158	60
<i>Service delivery</i>	2.3106	1.33250	60

Correlations

<i>Road network</i>	<i>Service delivery</i>		
Road network	Pearson Correlation	1	.772**
	Sig. (2-tailed)		.000
	N	60	60
Service delivery	Pearson Correlation	.772**	1
	Sig. (2-tailed)	.000	
	N	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

INTERPRETATION

The Pearson Correlation investigation depicted the strength and direction of straight association between the dependent and independent variables. Considering the investigation, sixty respondents were outlined. Road network (Mean: 2.3919; SD: 1.31158) and service delivery (Mean: 2.3106; SD: 1.33250). In the meantime, association coefficient worth of .772** exhibiting a strong and positive relationship between the variables. The p-value is 0.000 which is not by and large the basic worth of

0.05 showing that there is a significant relationship between traffic issues and ride-hailing patronage.



This construes that the invalid hypothesis is excused which states that the road network does not hamper the service delivery of ride- hailing operators and remembering that the substitute hypothesis is recognized at 5% level of significance. It is thus construed that the road network hampers the service delivery of ride hailing operators.

REGRESSION ANALYSIS HYPOTHESIS 4

H₀₄: The security condition and situation does not significantly have adverse effect on ride hailing operators.

H₁₄: The security condition and situation significantly have adverse effect on ride hailing operators.

Descriptive Statistics	Mean	Std. Deviation	N
Security condition	2.3034	1.18042	60
Ridehailing	2.1310	1.27069	60

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784a	.614	.611	.73603

a. Predictors: (Constant), security condition

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	123.179	1	123.179	227.374	.000b
	Residual	77.470	169	.542		
	Total	200.648	170			

a. Dependent Variable: ride hailing operators

b. Predictors: (Constant), security condition

Coefficients

Model	B	Std. Error	Standardized Coefficients	t	Sig.
			Beta		
1	(Constant)	.752		6.288	.000
		.728	.784	15.079	.000

a. Dependent Variable: ride hailing operators



INTERPRETATION

The fourth null hypothesis which states that the security condition and situation does not significantly have adverse effect on ride hailing operators was examined using regression. The Linear Regression measures the coefficient of the straight condition, including element that best predict the value of the dependent variable. In the investigation, sixty respondents were outlined security condition (Mean: 2.3034; SD: 1.18042) and ride hailing (Mean: 2.1310; SD: 1.27069). In the meantime, the model showed that security condition is the standard variable. With everything taken into account, the R2 is the extent of how much change in the dependent variable "ride hailing operators" that the pointer "Security condition". In this manner the back slide model records for 62% in variance.

The ANOVA investigation is the preliminary of R2 whether it is through and through more noticeable than nothing. The general backslide model was basic F (df =1, 169= 227.374, P<000, R2=.62%). The general backslide investigation was truly basic. Along these lines, it is gathered that the back slide is basic (.000b) as the R2 is out and out more noticeable than zero R2<.001. The coefficient table tests the insightful variable "ride-hailing operators" at alpha level .05. The backslide coefficient of 15.079 with a significance level of 0.000 which is considered to be under 0.05. Therefore, the alternative hypothesis is recognized at 5% level of significance and reject the null hypothesis which states that the security condition and situation does not significantly have adverse effect on ride hailing operators. It is thusly concluded that the security condition and situation significantly have adverse effect on ride-hailing operators.

Discussion of Findings

Hypothesis1 traffic issues does not significantly act negatively on ride-hailing patronage was excused. The eventual outcome of the backslide coefficient had a significance level of 0.000 which is considered to be under 0.05. Therefore, the alternative hypothesis is recognized at 5% level of significance and reject the null hypothesis. It is thusly assumed that traffic issues significantly act negatively on ride-hailing patronage. This relates to the work of Greenwood and Wittal (2017) which states that Preliminary analysis conducted by ride-sharing firms and several industry analysts suggests that the introduction of ride-sharing services has a negative effect on DUI arrests.



Hypothesis 2 which states that laws and tariffs does not significantly shrink down the profitability of ride hailing operators was excused. The eventual outcome of association coefficient worth of $.772^{**}$ showing a strong and positive association between laws & tariffs and profitability of ride hailing operators was accepted. The p-regard is 0.000 which is not by and large the basic worth of 0.05 exhibiting that there is significant relationship between laws & tariffs and profitability of ride hailing operators. This recommends that the null hypothesis is excused and elective hypothesis is recognized at 5% level of significance. It is accepted concluded that laws and tariffs significantly shrink down the profitability of ride hailing operators. This is in relation to the study of Mitchell (2000) which states that insufficient incentives to lower costs is considered to be the principal weakness of feed-in tariffs, while competitive bidding systems have proved to be particularly effective in this respect.

For hypothesis 3, the Pearson Correlation investigation depicted the strength and direction of straight association between the dependent and independent variables. Considering the investigation, sixty respondents were outlined. Road network (Mean: 2.3919; SD: 1.31158) and service delivery (Mean: 2.3106; SD: 1.33250). In the meantime, association coefficient worth of $.772^{**}$ exhibiting a strong and positive relationship between the variables. The p-value is 0.000 which is not by and large the basic worth of 0.05 showing that there is a significant relationship between traffic issues and ride hailing patronage. This construes that the invalid hypothesis is excused which states that the road network does not hamper the service delivery of ride- hailing operators and remembering that the substitute hypothesis is recognized at 5% level of significance. It is thus construed that the road network hampers the service delivery of ride hailing operators. This is in tandem with the study of Fingeretal.(2015)which states that the authorities have a role to play in the standardization of data exchange formats and that they should have recommended citywide open data formats in terms or road networks. However, he also argues that standardization can hamper innovation and service delivery if there is not enough flexibility to incorporate new design standards.

The fourth null hypothesis which states that the security condition and situation does not significantly have adverse effect on ride hailing operators was examined



using regression. The Linear Regression measures the coefficient of the straight condition, including element that best predict the value of the dependent variable. The coefficient table tests the insightful variable "ride-hailing operators" at alpha level .05. The backslide coefficient of 15.079 with a significance level of 0.000 which is considered to be under 0.05. Therefore, the alternative hypothesis is recognized at 5% level of significance and rejects the null hypothesis which states that the security condition and situation does not significantly have adverse effect on ride hailing operators. It is thusly concluded that the security condition and situation significantly have adverse effect on ride hailing operators. This is in relation to the work of Kim et al (2017) which states that fear of perceived risk influence transit behaviors and demographic characteristics of the people.

CONCLUSION AND RECOMMENDAION

This study has been able to test the relationship between environmental irregularities and ride-hailing services. The study therefore has the following to offer based on the findings analysis done. From the findings and analyses in the study the following conclusions are imminent: Traffic issues significantly act negatively on ride-hailing patronage. Laws and tariffs significantly shrink down the profitability of ride-hailing operators. Road network hampers the service delivery of ride hailing operators.

Security conditions and situations significantly have adverse effect on ride-hailing operators.

RECOMMENDATIONS

Based on the findings, conclusions and as well as contribution to knowledge, the following recommendations are postulated in order to enhance the perception of environmental irregularities and ride-hailing services: Government should act as a matter of urgency on improving strategic road networks across all areas of the state. This will help to improve the performance level in ride-hailing operators.

Ride-hailing operators should enhance competitive advantage for their increased profits and incomes which would reduce the impact of commissions charged by e-hailing companies. Ride-hailing operators should utilize flexible working hours to avoid working during congested hours which could lead to longer deadheading hours. All ride-hailing operators should act professionally and uphold a high



standard of customer service and relationships as a strategy to reduce harassment from government officials.

References

- Agbola, T. and Agbola, E.O. (2012). The Development of urban and Regional Planning Legislation and their impact on the morphology of Nigerian Cities. *Nigerian Journal of Economics and Social Studies*, 39(1): 123-143.
- Akinmoladun, O.I., Oluwoye, J. O. (2007). “An assessment of why the problems of housing shortages persist in developing countries: A case of study of Lagos Metropolis, Nigeria. *Pakistan Journal of Social Science* 4(4) 589-598.
- Dimuna, K.O. and Omatsone, M. O. (2010). Regeneration in the Nigerian urban built Environment. *Journal of Human Ecology*, 29(2), 141-49.
- Fehr and Peers. (2019). Estimated TNC Share of VMT in Six US Metropolitan Regions (Revision 1).
- Goldstein, G. (1990). Urbanization, Health and Wellbeing: A Global Perspective. *The Statistician – Special Issue on Health of Inner Cities and Urban Areas*, 39(2): 121-133.
- James, Owain. (2018). Uber and Lyft Are Lobbying States to Prohibit Local Regulation. Arlington, VA: Mobility Lab. July 24
- Jin, S.T.; Kong, H.; Sui, D.Z. (2019). Uber, Public Transit, and Urban Transportation Equity: A Case Study in New York City. *Prof. Geogr.*, 71, 315–330.
Memorandum, August 6.
- Mulley, C.; Kronsell, A. Workshop 7 report (2018): The “uberisation” of public transport and mobility as a service (MaaS): Implications for future mainstream public transport. *Res. Transp. Econ*, 69,568–572.
- Nathan, R. (2008). Electronic Commerce Adoption in the Arab Countries – An Empirical Study. Multimedia University, Malaysia
- Rayle, L.; Dai, D.; Chan, N.; Cervero, R.; Shaheen, S. (2016). Just a better taxi? A survey-based comparison of taxis, transit, and ridesourcing services in San Francisco. *Transp. Policy*, 45, 168–178
- Zeithaml, V.A., Parasuraman, A. & Berry, L.L. (2019) Delivering quality service, New York