International Journal of Management, Social Sciences, Peace and Conflict Studies (IJMSSPCS), Vol.6 No.3 September, 2023; p.g. 35- 52; ISSN: 2682-6135

BOLT STRATEGIES AND COMPETITIVENESS OF TAXI BUSINESS IN CALABAR MUNICIPALITY, CROSS RIVER STATE, NIGERIA

PEPPLE, GRACE J. (PhD)
AKAA, SAMUEL TERZUNGWE
ENUOH, REBECCA O. (PhD)
MAKAMA, LAWRENCE LINUS
ODIBU, ENEYI M.

Department of Business Management,
University of Calabar
Calabar-Nigeria
Correspondence email: akaatery1974@gmail.com
Phone: +2348159196442

Abstract

This study examined the effect of bolt strategies on the competitiveness of taxi business in Calabar, metropolis, Cross-River State-Nigeria. Specifically, the study investigated whether or not Bolt technology stategy, Bolt safety and security as well as customer service delivery strategy has effect on the competitiveness of taxi business in Calabar metropolis. The study is anchored on the resource based view theory originally proposed by Birger Wernerfelt (1984) and later developed and refined by Jay B. Barney (1990) and other scholars. The population of the study is made up of all the taxi and bolt drivers plying the Calabar metropolis (Marine, Etta-Agbor, Watt-market, Stadium, Mobil, Goldie and Mount Zion). A sample size of 200 was determined using Taro Yamanne's (1967) formula. Data was collected through a structured questionnaire and analyzed using simple linear regression test statistic. From the result of the findings and test of hypotheses, the study arrived at the conclusion that Bolt Nigeria has some unique strategies it has employed in its areas of operations and these strategies to a reasonable extent are disrupting the taxi business in these areas. And also that technology innovation strategy has a high positive effect on competitive advantage in Bolt Ngeria, Calabar metropolis of Cross River State. On the strength of the forgoing; it is recommended that Bolt strategies have a major influence on the disruption of the taxi business in its areas of operations in Nigeria. Since this disruption is in favour of Bolt in Calabar, the firm is advised to expand to other geographical areas in Cross River State in particular and that Bolt's technology innovation strategy has a significant influence on the competitive advantage in its areas of operations in Nigeria. However, it is suggested that the firm should focus more on research and development to improve on the Bolt innovation and also using technology innovation strategy that has been neglected by the existing taxi operators.

Keywords: Bolt Strategies, Competitiveness, Taxi Business, Innovation, Calabar Metropolis.

1.1 Introduction

The continuous sustainability of cities is largely dependent on the transportation sector **Aiyegbajeje (2019). Transportation plays an important role in the development of any country.** Public transport improvements may increase economic productivity if they enable the growth and densification of cities, downtowns, or industrial clusters and thereby increase external agglomeration economies (Chatman, Noland, 2010).

As most industries are influenced by the evolution of new technologies, the taxi industry is certainly not exempted from this phenomenon. According to a report by OECD 2018, about road transport industry, one of the remarkable influences has been the emergences of app-based ride services. Furthermore, the report points that app-based ride solution has advanced portable internet technology as well as superior on-demand solution which have brought global influence on the taxi industry.

A study by Dube (2015) asserted that the influence of app-based ride solution on the taxi industry is commonly fixed at price comparison. Other related influence is the fact that app-based ride services do not comply with traditional regulation (Sun, Yu, Zeng, Wang & Tian, 2015). With no policy attached, app-based ride services have used a pricing and comfort strategy to significantly grow their business compared to traditional taxi operators.

The taxicab has long been one of the dominant forms of transportation in cities around the world. By the late 1930s, most cities had placed government regulations on the taxi industry to combat the oversupply of taxis. This was meant to stabilize prices, ensure the safety and quality of taxis, and give drivers a liveable wage. However, these government regulations restricted entry through capping the supply of taxis, leading to the creation of local taxi monopolies in some cities (Snead, 2015). Taxi companies have been benefitting from a lack of competition in the for-hire transportation market until recently. The major challenge that the taxi industry is currently facing is the technological innovation of ride-sharing applications. Ridesharing companies, namely Uber, Lyft and Bolt operate by using a Smartphone application to match consumers requesting rides with drivers that will take them there.

Taxis accounts for a smaller share of `urban transit and are not extensively studied like other transport modes. As argued by G. Venkatesh (2017), taxis serve several markets, older residents, higher-income groups, and lower-income households without a car. But despite their smaller share of passenger movement within urban areas, they still fill a critical gap by complementing and substituting for public transit (Austin, Zegras, 2012; King et al., 2012). According to (Wohl, 1975; Cervero, 1997; Enoch et al., 2004; Santi et al., 2014), shared taxis can potentially bring benefits, including increased efficiency, lower costs for passengers, and reduced congestion and overall vehicle travel.

Advances in information, communication, and digital technology have transformed global socioeconomic activities, developed the sharing economy, enhanced collaborative consumption, and created the ridesharing platform marketplace in the transportation industry (Davies et al., 2017). Studies on mode choice as an application of consumer choice theory suggest that people choose among alternatives to maximize personal utility or net benefit to them. In road transport and other modes, there exist different sub-modes within

each of the transport mode. Choices within any particular mode are based on several factors ranging from cost, convenience, safety, and speed, among others (Erdoğan, Açikalin, 2015). As argued by (Pan et al., 2017), passenger volume is positively associated with employment density and residents' commuting distance around station. Other variables identified by them are commercial activity centres and metro centres.

Bolt is currently an international firm that offers its customers a private transport service, through its platform, an application for Smartphone, which associates travellers with drivers of vehicles registered in the system to offer a service of private transportation through vehicles to people. The organization classifies travel in many urban communities around the world.

Initially, drivers had vehicles that the company certified as appropriate. As a result of these new ways of moving, emerges Bolt, which for several years has started to mark a new trend in moving people from one point to another, especially in big cities around the world. It has its origins in a revised class concept of Strategic Management as it is born global that refers to those companies that are born in a global or international market and are making a new trend in the ways of doing business, taking advantage of the technological changes that have occurred in the world in which we live in today. The company considers having a relationship with the technological-based firms that are characterized by being innovative.

1.2 Statement of the problem

Today's globalization plays an important process, because it has eliminated some barriers in the flow of activities. Technology has been a way these barriers have been eliminated, since technological innovations often come with advancement in the behavioural pattern of individuals. However, the effect of Bolt services on Taxis cannot be overemphasised. The current strategy employed by bolt service such as the use of mobile app for ordering of cars, convenient vehicle with limited numbers of persons at a time has affected taxis sustainability. Also Bolt services are not regulated by government and this is a great concern for the local taxis drivers' sustainability. Furthermore, bolt provides greater safety and security to its customers by ensuring only good conditioned vehicles are used, tested and licensed verified drivers are acceptable to use the app. Comfort-ability in the use of Bolt compare to taxis gives it a competitive advantage over taxis as taxi drivers accommodate much passengers at a time.

Based on the aforementioned benefits of bolt over taxi, this study is set to determine competitive strategies that can be adopted by taxi businesses in Calabar metropolis.

1.3 Objectives of the study

This study aims to find out Bolt strategies and competitiveness of Taxi business in Calabar. The following specific objectives were therefore formulated to guide the study:

i) To ascertain if bolt technology strategy has influence on competitiveness of taxi business in Calabar metropolis.
ii) To determine the effect of bolt safety and security strategy on competitiveness of taxi business in Calabar metropolis.
iii) To examine if customers service delivery strategy has effect on competitiveness of taxi business in Calabar metropolis.

1.4 Research hypotheses

The following hypotheses were formulated for the purpose of the study. This was formulated in this way to test the relationship between the dependent and independent variables.

Hypotheses One:

H0: There is no significant effect of Bolt technology strategy on competitiveness of taxi business in Calabar metropolis.

Hypotheses Two:

H0: There is no significant effect of Bolt safety and security strategy on the competitiveness of taxi business in Calabar metropolis.

Hypotheses Three:

H0: There is no significant effect of Bolt customers' satisfaction strategy on the competitiveness of taxi business in Calabar metropolis.

2.0 Literature Review

2.1 Conceptual Framework

2.1.1 The Concept of Transportation

Transportation plays a vital role in the day-to-day activities of the society. In most communities, a large fraction of the working population commutes to work daily (McGuckin, and Srinivasan, 2005). Commuting may not only be for business purposes but also for relaxation, shopping and other social activities. Of all the means of transportation, land transport, comprising of the use of vehicles – both private and commercial is common especially in developing countries of Africa (Vasconcellos, 2014). However, a key advantage of commercial transportation over owning a personal vehicle is that it is less expensive and economical considering the high poverty rate in this region (Carruthers, Dick, and Saurkar, 2005).

Transportation is referred to as the use of both public and private transport dedicated to move people and goods in a safe way. Public transportation is an integral means of transport that shapes daily life. It is used to move a significant portion of the population to their destination, such as their place of their educations, jobs or simply conducting social activities. Also transport plays an essential role in enabling people from low income and other disadvantaged groups to access employment and services. Furthermore, it contributes to the development of social networks and social capital, by helping people to visit friends and relatives and take part in community and other social activities.

Transportation involves moving people and goods through different modes of transport, such as road, aviation, rail and maritime. According to Rodrigues da Silva and Balassiano (2011), the taxi industry plays an integral role worldwide as a transportation alternative. Furthermore, the authors stated that these so-called semi-public transport means are widely used in cities when the travelling distances between the point of departure and arrival become too wide to be travelled by means of no motorised modes. Lowitt (2006) asserted that the taxi industry presents diverse demand in developing and developed countries.

Taxis are a means of transport that serves as a substitute to the use of private cars by passengers who do not possess their own vehicles or simply use it for convenience (Rodrigues da Silva & Balassiano, 2011). From the current market environment, the taxi industry mostly operates under inadequate transport system, however, the taxi industry is considered as a practical source of income for their operators (Lowitt, 2006). This income raised is used to sustain their families and cater for their daily needs.

2.1.2 Overview of the taxi industry

Taxis are cars used for public transport services providing door to door personal transport services (Joseph Maria Salanova, 2014). Basically, taxi services are referred as ride-sourcing services where it reduces the waiting time of point to point transportation. In the metropolitan areas, taxis have become an extensive mode of transportation. Customers in the present era are using mobile apps to book a cab at any time and from any place in urban areas (Kumar & Kumar, 2016). Taxi services are also viewed as a part of a suite of transport options that serves previously unmet demand for fast, flexible, and convenient mobility in urban areas. By providing an attractive alternative to driving, these services can potentially reduce auto use, ownership, and environmental problems (Lisa, 2014). Bolt drivers are independent contractors who provide investments in assets and services through the ridesharing, taxi, and transportation industry. Tchanche (2019) identified four modes of transportation: road, air, maritime, and rail, and in sub-Saharan Africa such as Nigeria, road transport is the dominant model. Road transport includes other sub-modes such as walking, animal-based transportation, carriages, taxis, motor bikes, tricycles, and buses. Tchanche listed some challenges in the road transport sector, such as poor road infrastructure and maintenance, pollution, frequent accidents, and lack of local industry. These challenges require critical and innovative ideas from various actors in the sector.

2.1.3 App-based transportation

The innovation of technology continues to impress and boost many business sectors. Due to the evolution of ICTs (information and communication technologies), such as GPS (global positioning systems) and smart phones, has transformed the way of moving customers with new transportation network companies referred to as app-based services (Transportation Research Board, 2015). App-based services are transportation identified with companies such as Uber, Bolt, and Bosscap etc.

Through the use of technology, app-based services have raised important debates regarding its evolution to urban transportation. Some debates surrounding app-based services are focused on its definition. According to Rayle, Shaheen, Chan, Dai and Cervero (2014), app-based services are characterised as new transportation means that are reliable and time-efficient in moving passengers from one point to another. Furthermore, the authors point out that, even though the service is similar to traditional taxis' transportation, its difference in technology use has positively attracted a number of customers and traditional taxi drivers are more confused regarding policies toward app-based services technology use as they consider it as unfair. According to the Competition Commission of South Africa (CCSA, 2018), app-based taxis are defined as a technology system that connect drivers to passengers through the means of global positioning systems (GPSs). The California Public Utilities Commission (CPUC, 2012) defined it as "any organization that provides planned transportation services

for compensation using an online-enabled application or platform to connect passengers with drivers using their personal vehicles". Nelson (2012) asserted that, with this type of transport, possible customers request the service according to their desired departure time, and the system simultaneously matches riders to drivers. According to Chen (2015), the use of app-based services has become imperative for urban transport; with an emergence of companies such as Uber, Bolt and Bosscap, the service is considered to be better, and time management has improved when compared to traditional metered taxis.

According to Barry (2015), the app-based services, such as Uber and Bolt, since their introduction, have become the most used mode of transportation that is more targeted by younger consumers who are generally better educated. A study by Bhuiyan (2018) illustrates that the emergence of app-based solutions, such as Uber and Bolt, has caused chaos to other traditional transportation specifically the metered taxi services. Furthermore, Wade (2015) added that app-based services, such as Uber and Bolt, are well positioned with tactical strategies that are easy to use, have high service levels and are price transparent.

Since their implementation, app-based services have effectively democratised taxi ownership where entrepreneurs can join and become an operator or a driver (Barry, 2015). The fast pace at which this sector of the industry is growing has raised many questions regarding other transport markets around the world (Eisenmeier, 2018).

2.1.4 Metered taxi and app-based service regulations

Over the past few years the metered taxi industry encountered heightened protests and strikes globally (Buckley, 2015). These popular uprising events have also been experienced in Nigeria and Calabar, with the primary reason for such resistance from the industry role players happening as a result of technology developments, such as the app-based services. The emergence of technology platforms in this industry has resulted in significant growth patterns that are referred to as the "peer-to-peer" factors, replacing traditional markets as a medium for exchange of goods and services (Arun, 2014). In Toronto, Canada, taxi drivers threatened to strike during a major sporting event in the city in protest to Uber services; this view is also emphasised by other studies describing how digital platforms are replacing traditional markets as a medium for exchange of goods and services (Buckley, 2015). The emergence of digital platforms has created new challenges for policy makers and in particular, the transport regulatory authorities. The traditional metered taxi industry has been regulated by government intervention which has created a difficult situation in bringing about new regulations for the emerging operators using transport-based apps (Arun, 2014). Munshi (2016) stated that, "the emergence of app-based services has essentially defied regulators, as the market disturber has actually developed far before legislative processes to respond to the change brought about by app-based services".

According to Cramer and Krueger (2016), app-based services have been reviled by regulators and the metered taxi industry as they are not entitled to pay any taxes to the state. In addition, app-based drivers do not pay value added tax as other drivers do. Even though the emergence of Bolt has been met with resistance around regulations and unfair business practices, the business model appears to have circumvented traditional challenges that have subjected the traditional operators for many years. Some of the primary regulations include operators

having to seal taxi meters for the purpose of regulating tariffs, such as minimum and maximum fares per kilometre that are not required in Bolt vehicles.

2.1.5 Bolt strategy over taxi

The major strategies Bolt has adopted to gain competitiveness in its areas of operation in Nigeria are:

- **Technology Innovation (Disruptive Innovation)**

Disruptive innovation formerly referred to as disruptive technology is a theory propounded by a Harvard Professor; Clayton Christensen, one of the world's renowned experts in innovation and growth in 1997 in his book "The Innovators Dilemma". Clayton noted that speaking about technology disruption does not imply that the technology itself is disruptive, but its impact on business models or strategy is disruptive (Clayton, 2016). The disruptive innovation concept, which is influenced by the creative destruction theory of Schumpeter, is used to designate when a novel paradigm of the market offered to customers completely replaces existing ways of doing things (Chau & Witcher, 2010).

According to, Chau & Witcher, (2010), disruptive innovation can be classified into two; the first one creates a new market that aims at the new customers (new marketplace), and the second tends to compete in a low value- added segment of an already existing marketplace. In the same vein, bolt Nigeria targeted two markets; the first is the customers who need luxury and are willing to pay and the second are customers who can afford low value but comfortable services

This corroborates the notion that disruptive innovations perk up value, steals market share, while new products or services substitute existing ones (Clayton; Raynor & McDonald 2015). According to Clayton; Dillon; Hall & Duncan, (2016), digital disruptors generate value for customers using at least one of these three media listed below which Bolt has applied to gain a competitive edge over its competing and make, vehicle plate number, driver's expected time of arrival, etc. This information assists the two parties involved to identify each other at their pick-up location (Bolt Technology, 2016a). At the end of the trip, the transportation fare is automatically calculated and thereafter charged to the payment system linked to the customer's Bolt Nigeria Account. In addition, immediately the trip comes to an end, the Mobile app will request the ride-hailer to rate the driver from grade star points of 1 to 5. Bolt Nigeria uses feedback mechanisms, which are designed to support a system of respect and accountability for the concerned entities (Bolt Technology, 2016a). Platform Value-competing is achieved by creating network effects that benefit customers (Clayton; Dillon; Hall & Duncan, 2016). Bolt has an application platform that matches independent drivers with riders through a Smartphone application. An independent driver is someone who has a car, has time, and wants to make some extra money. These driver(s) signs up with Bolt and they are scrutinized and passed through some psychometric testing and their cars are also investigated by Bolt and are put in the Bolt system such that when a rider requests a car, the closest independent driver is sent to them. In Bolt's areas of operations in Nigeria, customers or clients Use their "Bolt App" to request a ride. When a customer requests a ride, a nearby driver-partner accepts the customer's request; the app will display conventional taxi businesses. Cost value-competing is achieved by rendering customers lower-cost and/or some

other cost economic gains. Experience value-competing entails offering customer's superior experiences. Bolt ICT-platform (app) provides information about the driver-partner with whom a customer has been assigned, including the driver names, vehicle model to the customer the driver's estimated time of arrival, and the app equally notifies the customer when the driver partner is about to arrive.

- **Convenient Payment**

Using this as a strategy, Bolt registers details of a customer's debit (ATM) card immediately after the customer signs up for an account. After each ride, the total fare will be automatically deducted from the customer's debit (ATM) card bank account, and automatically paid to the appropriate recipients' accounts respectively (Martin, 2016). This saves both parties the hurdles of looking for spare change and fear of being robbed by a driver or unsuspecting hoodlums. Moreover, the concerned driver will not have to worry about riders short-changing them because the fares will be automatically paid.

- **Flexible Pricing Model**

Models of pricing can either be cost-based, demand-based, or competition-based (Dana, 2018). Cost-based pricing focuses on the cost of production and the desired profit without putting into consideration the level of demand. In demand-based pricing, investigations are made to ascertain the acceptable price range customers would be comfortable with, from the information gathered, cost requirements and turnover are determined. However, in competition-based pricing, prices are set based on competitors (Dana, 2018). Bolt Nigeria's pricing system is flexible, that is, it is using both demand-based and competition-based pricing models. According to Uberkit.net (2017), firm can raise its prices or lower the rates according to the current demand for its services and what is obtainable in the marketplace in terms of its competitors. Martin (2016) asserted that individuals who are making use of Bolt services are already made aware ahead of time of their estimated fare, and the mobile app allows.

- **Rating System**

Bolt Nigeria using this as a business strategy, gives room for a ride-hailer to rate his/her driver at the end of every ride. If a targeted number of ride-hailers rate a driver and rating plunged below the benchmark set by the firm, the driver will be removed automatically from the system. The rating system strategy encourages the drivers to offer and uphold high-value services, ranging from how the drivers keep up their vehicles to how they drive and interact with their clients/customers (Mutai, 2017).

- **Celebrity Brand Ambassador**

Bolt Nigeria added more innovation and creativity to its business by introducing a corporate ambassador (celebrity branding) in 2018. A brand ambassador is a famous individual who uses his eminence to promote a product or service of a particular organization (Lucouw, 2014). Using brand ambassadors in the business environment became a popular marketing strategy, over the past few decades (Andersson & Ekman, 2009). Brand ambassadors are usually popular and followed by many fans. This propels business organizations to use them in marketing their products and services to get their message across.

The aim of using celebrities by most business organizations and brands in marketing and advertisement is to increase sales and ultimately have a positive outcome on the turnover of the concerned firm (McKinney, 2014).

According to Lucouw, (2014), incorporating a celebrity brand ambassador by a firm enhances the chances of its products and services being sold more than that of competitors. A brand ambassador has a very high propensity to get across a target market, create and/or strengthen brand image, increase brand awareness, and achieve brand differentiation (Wilson; Stavros & Westberg, 2010).

2.2 Theoretical framework

2.2.1 The Resource Based View Theory

Wernerfelt propounded the resource-based view theory in the 1980s. The theory was used in the early 20th century as a cost-effective tool for a firm, which is aimed at helping a firm to achieve competitiveness. The foundation of the theory is that thriving business organizations will discover their potential competitive advantage on the growth of distinguishing and unique competencies, which may often be implicit or intangible (Wernerfeit, 1984). This theory is a foundation for the competitive advantage of an organization that lies mainly in the appliance of a collection of costly; substantial or insubstantial resources at the organization's reach, which must be diverse and inert.

Diversity is in deference to the kind of resources an organization controls. Moreover, the resources are expected to exist over time because they will be used to execute other organization's strategies (Mutai, 2017). The organization's unique resources and competencies offer the fundamental nature of strategy (Onyeaghala & Odiba, 2018). The RBV theory recommends that competitiveness and performance outcomes are results of an organization's explicit resources and potentials that are costly to imitate by competitors. Therefore, when a firm is working toward gaining competitiveness, it is imperative to craft the resources possessed by the firm and see how such resources can be used for the actualization of the firm's sustained competitiveness. The RBV theory argues that a firm's capabilities and resources create the competitive advantage instead of the market product activities thereby conveying different organizational performances that are not explained by the factors of the industry. Fundamentally, the capabilities of an organization and its resources are the main focus of the resource-based view theory. Therefore, this theory is of essence to this research because it helps to explain how Bolt uses the available resources to attain a competitive advantage, maintain sustainability and quality control levels.

3.0 Methodology

In carrying out the study, the descriptive research was employed by the researcher. The researcher also employed the use of survey descriptive research design in gathering information.

The population for this study cut across taxis and bolt drivers plying the Calabar metropolis. The route considered in the process of carrying out this work is Marine, Etta-Agbor, Watt-Market, Stadium, Mobil, Goldie and Mount Zion. The total population that will be used is 399.

3.1 Sample size

The sample size comprised 200 bolt drivers accidentally sampled from a population of all the bolt drivers in Calabar metropolis.

The Taro Yamane formula was used to determine the sample size due to the large number of the population.

Formula:

$n= N/1+N (e)^2$

Where

1 = constant

n = sample size

N = population size

e = level of significance of tolerance error which is 0.05

$n=399/1+399 (0.05)^2$

$= 399/ (1+399 (0.0025))$

$= 399/1.9875$

n = 199.7 approximately 200

Therefore, the sample size is 200

4.0 Data Presentation, Analysis and Discussion of Findings

This section focuses on the presentation, analysis and discussion of the raw data collected. In the process of carrying out this research, 200 questionnaires were distributed and 200 were retrieved from the sampled area.

The independent variable of the study was bolt strategies and the sub-variables identified under it were technology strategy, safety and security strategy and customer satisfaction strategy. Data for all the independent sub-variables were collected continuously under section "B" of the Questionnaire using four point likert type scale of Strongly Agree, Agree, Disagree and Strongly Disagree.

The dependent variable of the study was competitiveness of taxi business. The variable was measured continuously under section "B" of the questionnaire using four point likert type scales of Strongly Agree, Agree, Disagree and Strongly Disagree. Results of descriptive statistics emanating from data analysis for all the continuous variables are presented in table 4.5 below:

TABLE 4.20
Summary of descriptive statistics for all the continuous variables of the study

Strategies	N	Minimum	Maximum	Mean	Std. Deviation
Technology	200	5	16	10.33	2.585
Security	200	6	16	10.23	2.037
satisfaction	200	6	16	10.58	2.440
competitiveness	200	6	16	11.17	2.414
Valid N (listwise)	200				

Source: Field work, 2023

Results of analysis in table 4.20 show the descriptive statistics for all the continuous variables of the study.

4.3 Test of hypotheses

Hypothesis one:

There is no significant effect of bolt technology strategy on competitiveness of taxi businesses in Calabar metropolis. The independent variable in this hypothesis was bolt technology strategy while the dependent variable was competitiveness of taxi businesses. Simple linear regression analysis test statistic was employed in testing data for this hypothesis. The results of the analysis were presented in tables below

Table 4.21
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	125.822	1	125.822	24.100	.000[b]
	Residual	1033.733	198	5.221		
	Total	1159.555	199			

a. Dependent Variable: competitiveness
b. Predictors: (Constant), technology

Results of analysis in table 4.21 show the predictive composite effect of bolt technology strategy on competitiveness of taxi businesses in Calabar metropolis. The results indicate that the calculated f-value of 24.100 is greater than the critical f-value of 3.89 at 0.05 level of significance with 1 and 198 degrees of freedom. This means that, there is a significant effect of bolt technology strategy on competitiveness of taxi businesses in Calabar metropolis. By these results the alternate hypothesis is accepted and the null rejected.

Table 4.22
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.329[a]	.109	.104	2.285	1.034

a. Predictors: (Constant), technology
b. Dependent Variable: competitiveness

The R^2 of the simple linear regression in table 4.22 measures the degree of determination coefficient of predictor (bolt technology strategy) on competitiveness of taxi businesses in Calabar metropolis. It predicts that 10.9% of the variation in competitiveness of taxi businesses in Calabar metropolis is explained by the variation of predictor (bolt technology strategy), while 89.1% of the variations in the competitiveness of taxi businesses in Calabar metropolis is explained by other variables which are extraneous to the study.

Table 4.23
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.988	.667		11.976	.000
	technology	.308	.063	.329	4.909	.000

a. Dependent Variable: competitiveness

The coefficient in table 4.23 of .308 (30.8 percent) shows that, a percentage increase in bolt technology strategy while other variables are held constant would lead to 30.8 percent increase on competitiveness of taxi businesses in Calabar metropolis. The t-statistics in the table show that, the calculated t-value for bolt technology strategy (4.909) is greater than the critical t-value of 1.972 at 0.05 level of significance with 198 degrees of freedom. This means that, the predictor (bolt technology strategy) has a significant effect on competitiveness of taxi businesses in Calabar metropolis. That is, the higher the level of bolt technology strategy, the higher the level of competitiveness of taxi businesses in Calabar metropolis and vice-versa.

Hypothesis two:
There is no significant effect of bolt safety and security strategy on competitiveness of taxi businesses in Calabar metropolis. The independent variable in this hypothesis was bolt safety and security strategy while the dependent variable was competitiveness of taxi businesses. Simple linear regression analysis test statistic was employed in testing data for this hypothesis. The results of the analysis were presented in tables below:

Table 4.24
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.290	1	121.290	23.130	.000[b]
	Residual	1038.265	198	5.244		
	Total	1159.555	199			

a. Dependent Variable: competitiveness
b. Predictors: (Constant), security

Results of analysis in table 4.24 show the predictive composite effect of bolt safety and security strategy on competitiveness of taxi businesses in Calabar metropolis. The results indicate that the calculated f-value of 23.130 is greater than the critical f-value of 3.89 at 0.05 level of significance with 1 and 198 degrees of freedom. This means that, there is a significant effect of bolt safety and security strategy on competitiveness of taxi businesses in Calabar metropolis. By these results the alternate hypothesis is accepted and the null rejected.

Table 4.25
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.323[a]	.105	.100	2.290	1.093

a. Predictors: (Constant), security
b. Dependent Variable: competitiveness

The R^2 of the simple linear regression in table 4.25 measures the degree of determination coefficient of predictor (bolt safety and security strategy) on competitiveness of taxi businesses in Calabar metropolis. It predicts that 10.5% of the variation in competitiveness of taxi businesses in Calabar metropolis is explained by the variation of predictor (bolt safety and security strategy), While 89.5% of the variations in the competitiveness of taxi businesses in Calabar metropolis is explained by other variables which are extraneous to the study.

Table 4.26
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.244	.831		8.713	.000
	Security	.383	.080	.323	4.809	.000

a. Dependent Variable: competitiveness

The coefficient in table 4.26 of .383 (38.3 percent) shows that, a percentage increase in bolt safety and security strategy while other variables are held constant would lead to 38.3 percent

increase on competitiveness of taxi businesses in Calabar metropolis. The t-statistics in the table show that, the calculated t-value for bolt safety and security strategy (4.809) is greater than the critical t-value of 1.972 at 0.05 level of significance with 198 degrees of freedom. This means that, the predictor (bolt safety and security strategy) has a significant effect on competitiveness of taxi businesses in Calabar metropolis. That is, the higher the level of bolt safety and security strategy, the higher the level of competitiveness of taxi businesses in Calabar metropolis and vice-versa.

Hypothesis three:

There is no significant effect of bolt customers' satisfaction strategy on competitiveness of taxi businesses in Calabar metropolis. The independent variable in this hypothesis was bolt customers satisfaction strategy while the dependent variable was competitiveness of taxi businesses. Simple linear regression analysis test statistic was employed in testing data for this hypothesis. The results of the analysis were presented in tables below:

Table 4.27

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	215.255	1	215.255	45.134	.000[b]
	Residual	944.300	198	4.769		
	Total	1159.555	199			

a. Dependent Variable: competitiveness

b. Predictors: (Constant), satisfaction

Results of analysis in table 4.27 show the predictive composite effect of bolt customers' satisfaction strategy on competitiveness of taxi businesses in Calabar metropolis. The results indicate that the calculated f-value of 45.134 is greater than the critical f-value of 3.89 at 0.05 level of significance with 1 and 198 degrees of freedom. This means that, there is a significant effect of bolt customers' satisfaction strategy on competitiveness of taxi businesses in Calabar metropolis. By these results the alternate hypothesis is accepted and the null rejected.

Table 4.28

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.431[a]	.186	.182	2.184	1.115

a. Predictors: (Constant), satisfaction

b. Dependent Variable: competitiveness

The R^2 of the simple linear regression in table 4.28 measures the degree of determination coefficient of predictor (bolt customers satisfaction strategy) on competitiveness of taxi businesses in Calabar metropolis. It predicts that 18.8% of the variation in competitiveness of taxi businesses in Calabar metropolis is explained by the variation of predictor (bolt customers

satisfaction strategy), While 81.2% of the variations in the competitiveness of taxi businesses in Calabar metropolis is explained by other variables which are extraneous to the study.

Table 4.29
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.658	.688		9.670	.000
	satisfaction	.426	.063	.431	6.718	.000

a. Dependent Variable: competitiveness

The coefficient in table 4.29 of .426 (42.6 percent) shows that, a percentage increase in bolt customers' satisfaction strategy while other variables are held constant would lead to 42.6 percent increase on competitiveness of taxi businesses in Calabar metropolis. The t-statistics in the table show that, the calculated t-value for bolt safety and security strategy (6.718) is greater than the critical t-value of 1.972 at 0.05 level of significance with 198 degrees of freedom. This means that, the predictor (bolt customers satisfaction strategy) has a significant effect on competitiveness of taxi businesses in Calabar metropolis. That is, the higher the level of bolt customers satisfaction strategy, the higher the level of competitiveness of taxi businesses in Calabar metropolis and vice-versa.

4.4 Discussion of findings

The first hypothesis investigated the effect of bolt technology strategy on competitiveness of taxi businesses in Calabar metropolis. The results of analysis using simple linear regression test statistic show that, there is a significant effect of bolt technology strategy on competitiveness of taxi businesses in Calabar metropolis. The R^2 of the simple linear regression in table 4.22 measures the degree of determination coefficient of predictor (bolt technology strategy) on competitiveness of taxi businesses in Calabar metropolis. It predicts that 10.9% of the variation in competitiveness of taxi businesses in Calabar metropolis is explained by the variation of predictor (bolt technology strategy), While 89.1% of the variations in the competitiveness of taxi businesses in Calabar metropolis is explained by other variables which are extraneous to the study. The coefficient of .308 (30.8 percent) shows that, a percentage increase in bolt technology strategy while other variables are held constant would lead to 30.8 percent increase on competitiveness of taxi businesses in Calabar metropolis. The t-statistics show that, the calculated t-value for bolt technology strategy (4.909) is greater than the critical t-value of 1.972 at 0.05 level of significance with 198 degrees of freedom. This means that, the predictor (bolt technology strategy) has a significant effect on competitiveness of taxi businesses in Calabar metropolis. That is, the higher the level of bolt technology strategy, the higher the level of competitiveness of taxi businesses in Calabar metropolis and vice-versa. These findings are in consonance with Clayton, Dillon, Hall and Duncan (2016) who concluded that digital disruptors generate value for customers using convenient payment, flexible price model and rating system which bolt has applied to gain a competitive advantage over it competitors (traditional taxi drivers).

The second hypothesis seeks to investigate the effect of bolt safety and security strategy on competitiveness of taxi businesses in Calabar metropolis. The results of analysis using simple linear regression show that, there is a significant effect of bolt safety and security strategy on competitiveness of taxi businesses in Calabar metropolis. The R^2 of the simple linear regression measures the degree of determination coefficient of predictor (bolt safety and security strategy) on competitiveness of taxi businesses in Calabar metropolis. It predicts that 10.5% of the variation in competitiveness of taxi businesses in Calabar metropolis is explained by the variation of predictor (bolt safety and security strategy), While 89.5% of the variations in the competitiveness of taxi businesses in Calabar metropolis is explained by other variables which are extraneous to the study. The coefficient of .383 (38.3 percent) shows that, a percentage increase in bolt safety and security strategy while other variables are held constant would lead to 38.3 percent increase on competitiveness of taxi businesses in Calabar metropolis. The t-statistics in the table show that, the calculated t-value for bolt safety and security strategy (4.809) is greater than the critical t-value of 1.972 at 0.05 level of significance with 198 degrees of freedom. This means that, the predictor (bolt safety and security strategy) has a significant effect on competitiveness of taxi businesses in Calabar metropolis. That is, the higher the level of bolt safety and security strategy, the higher the level of competitiveness of taxi businesses in Calabar metropolis and vice-versa. The findings are in line with the findings of Barry (2015) who opined that introduction of bolt app-based services provides safety and security and this have become the most used mode of transportation that is more targeted by younger consumers who are generally better educated thereby enhancing their competitive edge over traditional taxi drivers.

The third hypothesis investigated the effect of bolt customer's satisfaction strategy on the competitiveness of taxi businesses in Calabar metropolis. The results of analysis using simple linear regression test statistic show that, there is a significant effect of bolt customers' satisfaction strategy on competitiveness of taxi businesses in Calabar metropolis. The R^2 of the simple linear regression measures the degree of determination coefficient of predictor (bolt customers satisfaction strategy) on competitiveness of taxi businesses in Calabar metropolis. It predicts that 18.8% of the variation in competitiveness of taxi businesses in Calabar metropolis is explained by the variation of predictor (bolt customers satisfaction strategy), While 81.2% of the variations in the competitiveness of taxi businesses in Calabar metropolis is explained by other variables which are extraneous to the study. The coefficient of .426 (42.6 percent) shows that, a percentage increase in bolt customers' satisfaction strategy while other variables are held constant would lead to 42.6 percent increase on competitiveness of taxi businesses in Calabar metropolis. The t-statistics show that, the calculated t-value for bolt safety and security strategy (6.718) is greater than the critical t-value of 1.972 at 0.05 level of significance with 198 degrees of freedom. This means that, the predictor (bolt customers satisfaction strategy) has a significant effect on competitiveness of taxi businesses in Calabar metropolis. That is, the higher the level of bolt customers satisfaction strategy, the higher the level of competitiveness of taxi businesses in Calabar metropolis and vice-versa. The findings are in agreement with the findings of Layton, Dillon, Hall and Duncan (2016) who concluded that platform value-competing is achieved by creating network effects that benefit customers and satisfaction.

5.0 Conclusion and Recommendations

5.1 Conclusion

The study investigated Bolt strategies and the competitiveness of the taxi business in Calabar Metropolis. From the result of the findings and the hypotheses tested, the research, therefore, reached the following conclusions:

Bolt Nigeria has some unique strategies it has employed in its areas of operations and these strategies to a reasonable extent are disrupting the taxi business in these areas.

Technology innovation strategy has a high positive effect on competitive advantage in Bolt in Calabar metropolis of Cross River State.

5.2 Recommendations

i. The study revealed that Bolt strategies have a major influence on the disruption of the taxi business in its areas of operations in Nigeria. Since this disruption is in favor of Bolt in Calabar, the firm is advised to expand to other geographical areas in Cross River state in particular

ii. The study discovered that Bolt's technology innovation strategy has a significant influence on the competitive advantage in its areas of operations in Nigeria. However, it is suggested that the firm should focus more on research and development to improve on the bolt innovation and also using the technology innovation strategy, the firm should endeavor to target the segment of the market that has been neglected by the existing taxi operators.

References

Austin D., Zegras, P. (2012). Taxi cabs as Public Transportation in Boston, Massachusetts. Transportation Research Record, 2277(1), 65-74.Beirão G., Cabral J. A., 2007, understanding attitudes towards public transport and private car: A qualitative study, *Transport Policy*, 14, 478–489.

Bifulco, G. N., Pariota, I., Russso, S. M. and Del, G. P. (2014). Data collection for traffic and drivers behaviour studies: A large-scale survey. *Procedia Social and Behavioural Sciences, 111*, 721-730.

Cervero R., 1997, *Para-transit in America: Redefining Mass Transportation*, Greenwood Publishing Group, Westport, CT.

Chatman D.G, Noland, R.B., 2010, Do Public Transport Improvements Increase agglomeration Economies? A Review of Literature and an Agenda for Research, *Transport Reviews*, 31(6), 725-742. (DOI: 10.1080/01441647.2011.587908)

Davies, A. R., Donald, B., Gray, M., & Knox-Hayes, J. (2017). Sharing economies: Moving beyond binaries in a digital age. *Cambridge Journal of Regions*

Enoch M., Potter S., Parkhust G., Smith M., (2004). *Inter-mode: Innovations in Demand Responsive Transport*, Report for Department for Transport and Greater Manchester Passenger Transport Executive, Final report, London, Department for Transport, http://www.dft.gov.uk

Erdoğan M., Açikalin S., (2015). Comparing Factors Affecting Intra and Inter-City Travel Mode Choice of University Students, *Journal of Consumer and Consumption Research*, 7(2), 1-18

Filani M., (2003). *Advancing the cause of private participation in the road transport Sub-sectors in Nigeria*. Paper delivered at the 10th anniversary of the Associated Bus Company Ltd. Airport hotel, Ikeja.

Iversen, H. and Rundmo, T. (2004). Urban mobility in the era of sharing economy: An empirical study of Smartphone App Based Ride-sourcing Services. *Journal of Global Economy, 13*(4), 268-289).

McHugh, T. (2011). *An analysis of road safety and older driver behaviour*. Doctoral dissertation, Dublin Institute of Technology.

M., & Baufeldt, J. (2018). Ride-sharing: A potential means to increase the quality and availability of motorised trips while discouraging private motor ownership in developing cities? *Research in Transportation Economics, 69*(1), 607-614. https://doi.org/10.1016/j.retrec.2018.03.007

Osuala, E. C. (1991). Introduction to research methodology. Onitsha. Sciences FEP.

Oyesiku O. K., (2013). *Transportation and climate change: The Lagos state transport initiatives and potential impact on micro-climate in Lagos metropolis*, A paper presented at the Lagos state 5th climate change summit 2013 on vulnerability and adaptability to climate change in Nigeria–Lagos state transportation, housing and infrastructure in focus, held at Eko hotel and suites, Victoria Island, Lagos.

Roopa. S & Rani M. S; (2012); Questionnaire Designing for a Survey; The Journal of Indian Orthodontic Society 46(4)37-41; DOI: 10-5005/jp-journal-10021-1104

Santi P., Resta G., Szell M., Sobolevsky S., Strogatz S., Ratti C. (2014). Quantifying the benefits of vehicle pooling with shared ability networks. *Proceedings of the National Academy of Sciences*, 111(37), 13290-13294.

Shinar, D. Schechtman, E. and Compton, R. (2001). Self-reports of safe driving behaviours in relation to sex, age, education and income in the U.S. adult driving population. *Accident Anal, 33*(1), 373-385.

Syed. M. Sajjad-Kabri (2016). Method of data Collection; Basic Guidelines for Research: An Introductory Approach for All Disciplines; Edition: First; Chapter 9; Publisher; Book Zone Publication, Chittagong-4203, Bangladesh

Venkatesh G. (2017). Urban Mobility in the Era of Sharing Economy: An Empirical Study of Smartphone App Based Ride-sourcing Services, *Journal of Global Economy*, 13(4), 268-289

Wallen, W. and Aberg, L. (2006). Drivers' decision to speed: A study inspired by the theory of planned behaviour. *Transportation Research Part F, 9*, 447-433.

Wohl M., (1975) .The taxi's role in urban America: Today and Tomorrow, *Transportation*, 4, 143–158.

www.wikipedia.com—The free encyclopedia questionnaire