

Competitiveness and Profitability of e-Hailing Vehicle Ownership in South Africa

Applied Research Project

submitted by

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Declaration

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This done and signed by Bingo Masiza Balekwa at Johannesburg on this the 20 May 2024.

A handwritten signature in black ink, appearing to read 'Balekwa' with a large, stylized initial 'B' and a flourish at the end.

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Abstract

A qualitative research method is employed to examine the competitiveness and profitability of owning an Uber and/or Bolt vehicle(s) in the e-hailing industry, in South Africa. In-person interviews were conducted with the use of unstructured paper-based questionnaire, on which participants' responses were recorded. Porter's Five Forces model is adopted as the research theoretical framework. A total of eight randomly selected participants from Uber and Bolt were involved in the study. Four interviews were conducted in the city of Johannesburg, in the Gauteng province, and four in the city of Durban, in the province of KwaZulu Natal, in South Africa. The results are based solely on the Uber and Bolt drivers' personal experiences and perceptions. Part of the data was recorded from the Uber and Bolt drivers' applications installed on the cellular phone device, that are used to conduct business. The results show that profits are significantly low, with the lowest monthly profit of just over R900, for one vehicle. All drivers interviewed, operated with fully owned vehicles that were not financed through debt. Competition is significantly fierce in the e-hailing industry in South Africa, with each Uber or Bolt vehicle driver having only 10% - 20% probability of securing business at any instance on a normal day. Lack of stringent regulations by the government, in the industry, also gives rise to unfair competitive advantage for (and rivalry between) some drivers. A lack of barriers to entry is significant, owing to establishment of regulations by the government.

Keywords: *Bolt; Competition; Demand; E-Hailing; Profitability; Supply; Uber.*

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CHAPTER 1

Introduction

Urban transportation is facing major issues due to the global urbanisation process, which includes the usage of motor vehicles, rapidly rising travel demand, and ineffective public transportation networks. As a result, most countries are turning to e-hailing (Hu & Creutzig, 2021).

E-hailing services are characterised by the on-demand purchase of vehicles that rely on network connectivity and make use of digital applications via the internet (Jais & Marzuki, 2020). The fact that e-hailing services are financially and environmentally sustainable has drawn a lot of attention. In addition to being financially viable, this industry offers several other benefits to all drivers (Patino & Engren , 2020).

Drivers can work for themselves through e-hailing without taking on the risk or financial burden of opening a business. They give their services autonomously and are paid according to the amount of work they accomplish, because they are not paid on an hourly basis (Patino & Engren , 2020). This implies that they are totally reliant on consumer demand, and any alteration would have a big effect on the driver.

Since disruptive technologies entered the market, e-hailing has gained popularity as a more convenient and affordable option (Patino & Engren , 2020). The application connects a customer who requests a ride for pick-up with the closest available driver. The connection process increases market efficiency and demand (Patino & Engren , 2020). There is a window of time to satisfy clients, and it seems like the new entrant (e-hailing) is hurting the traditional taxi industry (Patino & Engren , 2020).

The research study focused on the economics of e-hailing in the context of South Africa (SA), focusing on Uber and Bolt. The author's interest for the research study rooted from the apparent lack of academic material on e-hailing in the context of South Africa (Rashied, 2021).

Uber and Bolt are thought to be fierce rivals (in South Africa), to metered taxi services like Maxi Taxi, Orange Taxis, Zebra Cabs, Quick Cab, DIDI, inDrive, Curb, Rikkis Taxis, etc. (Ndlovu, 2017). According to a South African study (Ndlovu, 2017), regular metered taxis impose premiums that can exceed 265% when compared to Uber's fare, which is much more than Uber's fares.

The same observation was once of concern in Rhodes, Greece, where in a parking lot, a bunch of cabbies unleashed their inner Hulks and caused mayhem by flipping and breaking Uber cars as if they were playing toys (Pappas, 2023). A rally against Uber's presence in Rhodes was organised by taxi drivers before to the incident, and three Uber drivers had been arrested by the police for breaking traffic laws and providing trips to the island's airport for less money than allowed (Pappas, 2023).

This implies that users of metered taxis would very probably move to a less costly form of transit (i.e. Uber). Metered taxis are facing intense competition from e-hailing businesses such as Uber and Bolt, which have mostly replaced metered taxis, since the e-hailing launch in South Africa just before, or around 2013 (Dube, 2015)

On another study (Giddy, 2019), Uber's application seems to have made finding a ride more convenient and straightforward. The results also showed how Uber can offer more freedom while yet enabling people to move throughout the city because of its many security features (Giddy, 2019).

South African respondents feel that Uber has successfully changed their personal mobility (as well as the overall mobility of humans in the land) (Giddy, 2019). The Meter Taxi Industry filed a complaint against Uber in 2016, claiming among other things, that the company operated unfairly by not adhering to the laws governing

public transportation licensing that are required in South Africa (CompCom). Additionally, the accusations suggested that Uber was charging less than what was necessary (i.e. what is known as predatory pricing) (Ndlovu, 2017).

Three categories comprise metered taxi regulations: quantity regulation, which deals with the quantity of motor vehicles on the road; quality regulation, which ensures that all drivers adhere to the necessary norms and measures; and fare regulation, which deals with limits for fares that can be charged (Ndlovu, 2017).

Quantity constraints place a limit on the number of cars that can compete in the metered taxi market. This seeks to regulate the way that cars are supplied to the market (Ndlovu, 2017). In other words, authorities pledge to restrict the number of cars permitted to reach the market by establishing a licensing system that verifies that applicants do fulfil specific requirements, usually under the regulator's judgment (Ndlovu, 2017).

The temptation to economise and lower the caliber of services rendered in an attempt to capture a larger portion of the market and engage in fierce competition is strong (Ndlovu, 2017). Therefore, it is necessary to adhere to quality standards to ensure both the safety of passengers and that the service satisfies the minimal requirements for quality (Ndlovu, 2017). These standards include those that pertain to the driver, such as suitability and properness, as well as whether the vehicle satisfies the required standards of quality (Ndlovu, 2017).

Pricing information should be easily accessible to customers (Ndlovu, 2017). Taxi fares can be set in a number of ways, such as based on the time or distance travelled, or with a maximum, minimum, or fixed fee per kilometer (Ndlovu, 2017). Such regulations will stop incumbent businesses from setting monopolistic pricing that they wouldn't in a market with competition (Ndlovu, 2017).

The research study concentrated on analysing and exploring the forces that affect the Uber and Bolt market (demand and supply), determining whether these patterns have changed since Uber's and Bolt's introduction in South Africa, the competitiveness of the market that Uber and Bolt have taken advantage of, the

dynamics of the legislation that exists in the market, and what appear to be low barriers to entry.

The next section outlines the context of the research study.

Context of the study:

The study belongs in the field of economics. One meaning of economics is "a social science that studies the production, distribution, and consumption of goods and services, as well as the resource allocation decisions made by individuals, businesses, governments, and nations". This is only one of the definitions that exist for the term (Hayes, 2022). Microeconomics is the subject of investigation in this field of study. Microeconomics is known as the study of supply and demand and their interactions in specific marketplaces for commodities and services (Rodrigo, 2023).

One of the key social science disciplines is economics, since it gives people and other entities useful information to help them make decisions in their daily lives and the understanding of the laws and regulations that regulate existence (Jana, 2018).

In the context of studies on the economics of Uber and Bolt, some of the more intriguing current subjects in this area include the claims that Uber violates e-hailing laws in order to obtain a competitive edge (Ndlovu, 2017), degree of utility that clients get from Uber services (Giddy, 2019); the list is quite long.

The next section explains the problem statement of the study.

Problem statement:

Owners of Uber and Bolt vehicles could not be making as much money as they did when the services were first introduced in South Africa. This might be because of factors such as operational expenses, supply outpacing demand at a rapid rate, and disobedience of the law. In 2012, Uber was introduced in South Africa

(Giddy, 2019), and Bolt, in 2016 (Dosunmu, 2022). Since 2015, the e-hailing market in the nation has grown at faster rates and gained popularity (Rashied, 2021). This may have resulted from low market entry barriers (Henama, 2020).

In the end, low barriers to entry allow people to register as many cars as they like with Uber and Bolt, increasing supply above demand. This is especially true given that Uber doesn't seem to be fully compliant to the regulations in South Africa (Ndlovu, 2017). According to the notion, people will often purchase and register cars with the company if supernormal earnings are achieved (Sanga, 2020).

On the other hand, drivers cannot make enough money due to high operating expenses. Uber charges a 25% fee for every ride on its partners, who are the owners of the vehicles; nevertheless, moreover, the owners of the vehicles bear the costs of fuel, insurance, car maintenance, and data used by the program (Uber, How Much Do Drivers with Uber Make in South Africa?, 2023). Every ride on Bolt costs drivers 23% in addition to a booking fee (Masilela, 2022).

In February 2024, taxi drivers using e-hailing pleaded with the President of South Africa, Mr. Cyril Ramaphosa, to enact the National Land Transport Bill (eNCA, 2024). The drivers cited the fact that the bill would help regulate the sector and compel businesses like Bolt, inDrive, and Uber to pay salaries that are reasonable (eNCA, 2024). Improvements in rider and driver safety were also seen as some components that would also result from the adjustments (eNCA, 2024).

In 2024, in a report in India, the Uber Chief Executive Officer admitted categorically that the organisation had been taking its drivers (who in principle, are business partners with Uber, for granted) (Fonseca, 2024).

The author's goal for the research study was to determine if it would be economical to register private vehicles with Uber and/or Bolt, given the market's response in terms of demand vs supply in South Africa. The research study also aimed at filling the gap in the body of knowledge regarding the profitability of e-hailing in South Africa.

The next section outlines the research questions.

Research questions:

The purpose of the research project was to provide comprehensive responses to the following questions (responses of which are recorded in Appendix 3 and reported in Chapter 4):

What can be deduced, with regards to Uber's and Bolt's demand vs supply performance, since their introduction in SA?

This question aims to ascertain whether the demand for Uber and Bolt vehicles in the e-hailing industry has been rising (or falling) in relation to their supply.

How have barriers to entry (into the e-hailing market) been, since the introduction of Uber and Bolt in SA?

This question aims to ascertain whether, since their introduction in South Africa, any entry barriers have been imposed and have an impact on the Uber and Bolt companies.

What would the effect in profits be, if Uber and Bolt charged per person inside the car (instead of per ride) in SA?

The purpose of this question was to determine if there was still an opportunity to increase revenue potential in the South African Uber and Bolt companies.

What level of competition exists in the e-hailing space in SA?

This question seeks to ascertain if Uber does turn a profit in South Africa even in the event that more vehicles sign up for the service. The future of Uber in South Africa has also been examined by this question.

Is there a threat of substitute in the e-hailing market?

The purpose of this question is to ascertain whether Bolt's competitors could endanger both Uber and Bolt's businesses.

Has the demand for Uber and Bolt rides increased or decreased in the market and how does this affect the business, from the driver's point of view?

The purpose of this question is to find out if the number of people seeking rides from Uber and Bolt could have a major impact on their capacity to conduct business with these companies.

Does the power of suppliers of Uber and Bolt vehicle owners have significant effect on the profitability?

This question seeks to determine if Uber and Bolt vehicle owners' service providers, including insurance providers, Bolt organisations, auto dealers, and auto repair shops, have the capacity to affect how profitable Uber and Bolt vehicles are.

The next section outlines the research objectives.

Research objectives:

- To investigate how e-hailing services affect drivers for Uber and Bolt.
- To ascertain the difficulties faced by Uber and Bolt drivers and how those difficulties impact earnings.
- To determine methods for reducing the difficulties.

The next section justifies the need for the study to be carried out.

Justification of the study:

Despite the fact that the recognised literature (Rashied, 2021) shows that, while growth has been realised since the e-hailing market became popular in South

Africa, there is still a need in the approved literature to examine market behaviour over time so that those interested in starting an e-hailing business may determine whether or not, venturing into such business would be profitable. Growth in the market for Uber and Bolt may also indicate that more of these vehicles have been put into service, which could have resulted in a supply rise that exceeded demand.

Because the study's findings will help decision-makers in South Africa strengthen – or loosen – or even add more provisions to the policy, it is crucial for them to consider. Given the conflict in South Africa between the traditional metered-taxi and e-hailing companies, it is reasonable to need influence over policy (Ndlovu, 2017). The study's findings will also give business development professionals in South Africa an understanding of the situation, as it is in relation to the Uber and Bolt companies, and they might even be able to predict its possibilities going forward.

The outcomes of the study created new opportunities for research, given that suggestions for further research were offered. Based on these recommendations, other organisations may offer postgraduate students' scholarships or other forms of research financing, so they can continue their studies in the field.

The planned study also adds to the body of knowledge in the field, by addressing gaps in the literature, offering fresh perspectives, or creating fresh plans to enhance South Africa's e-hailing services.

The next section outlines the limitations of the research study.

Limitations of the study:

- The research study solely looked at the South African e-hailing market, specifically focusing on the operations of Uber and Bolt.
- The research study did not concentrate on packages; rather, it concentrated solely on rides that passengers have requested.

- Among a few Uber vehicle classifications (Uber, Ride in Style: Different Types of Uber Rides in South Africa, 2023), UberX, UberBLACK, and UberGO were the excluded subjects in the research study.
- Amongst the Bolt rides, the research study was only limited to BoltGo and Bolt Base.
- The information and data related to the following vehicle categories was not examined in (or reported on) the research study: Bolt XL, Bolt Van, Bolt Premium, and Bolt Comfort; additionally, the information and data related to Uber Eats services offered through motorbikes and cars was not examined or reported on.

The next section details the theoretical framework adopted as the blueprint of the research study.

Theoretical Framework:

The Five Forces of Michael Potter, sometimes referred to as Potter's Five Forces, served as the theoretical foundation for the research study. Potter's Five Forces provide valuable insights into the attractiveness of industries, investment opportunities, and market competition (Potter, 2008). The Potter's Five Forces concept is depicted in Figure 1.

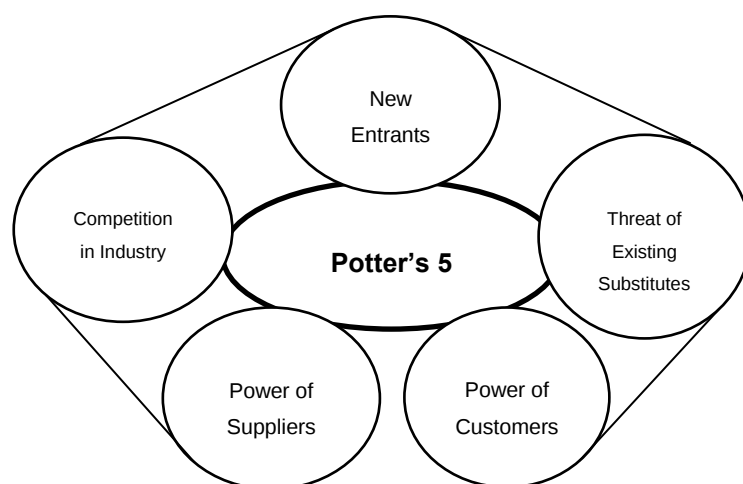


Figure 1 – Potter's Five Forces Framework

Other theories that could have been relevant to the study were the Grounded Theory, the PESTEL (Political, Economic, Social, Technological, Environmental, and Legal) analysis, and the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. However, the Potter's Five Forces theory was selected.

Given that the researcher believed that Uber and Bolt already operate in a highly competitive area in South Africa, the PESTEL analysis has not been selected as the optimal theoretical framework (Ndlovu, 2017), Therefore, it was imperative to thoroughly examine the allocation of power within this competitive setting. PESTEL would only be useful in this situation to ascertain how various macroenvironmental factors might impact Bolt's and Uber's competitive standing (Alanzi, 2018), it was not precisely what the research was attempting to do.

The SWOT analysis was not selected as the most appropriate theoretical framework because the research study did not seek to define what Uber and Bolt are capable of doing within and without respect to their organisation (Majekodunmi , February 2021).

According to the author's opinion, a significant factor in the profitability of Uber's and Bolt's operations is the rivalry that has developed over many years in the South African e-hailing market. Therefore, it was essential to research every facet of the competition, from inside Uber and Bolt, to outside of them.

Given that the research study aimed at collecting data, analyse it rigorously, and explain the findings; Grounded Theory was not selected as the best theoretical framework. One of the traits for the Grounded Theory is that it refrains from attempting to explain the results, but only sums up the phenomenon in issue (Gitonga, 2021).

In the research study, Potter's Five Forces were applied in the following ways:

Competition in the industry

In Potter's Five Forces, "Competition in the industry" is the first force (Potter, 2008). Owning a vehicle registered with Uber or Bolt may become less profitable as a result of competition from companies such as Orange, Zebra, Maxi Taxi, and others.

Exploration of the force in the study was employed, to determine whether Uber and Bolt's vehicle owners' profitability is unaffected by the quantity and potency of their rivals in the South African e-hailing market.

Power of Suppliers

The "Power of Suppliers" is the second factor of Potter's Five Forces (Potter, 2008). Operational expenses (car insurance, Uber's per-ride fee to drivers, car upkeep, etc.) for Uber and Bolt vehicles, is believed to be extremely expensive, making it hard for owners of these vehicles to turn a profit.

The force was employed by evaluating the suppliers of Uber and Bolt car owners and determining whether or not they have an impact on the profitability of Uber and Bolt vehicle owners in South Africa. For instance, it could be possible that owners of Uber and Bolt vehicles are forced to continue in costly contracts with suppliers; this could be because there are fewer providers in the market, or because of policies implemented by Uber and Bolt.

Power of Customers

"Power of Customers" is the third force of Potter's Five Forces (Potter, 2008). It's possible that the e-hailing business has seen a significant decline in demand, which has increased consumer power and could eventually have an impact on the profitability of owning an Uber or Bolt car.

Exploration of the force was employed to determine whether or not, consumer power has no bearing on how profitable it is to own an Uber or a Bolt vehicle. Since they can simply choose to use a different company for e-hailing, fewer customers have more buyer power, as outlined in Potter's Five Forces paradigm.

This has an impact on the profitability of owning an Uber or Bolt vehicle. Therefore, the buying power decreases with the number of customers (Potter, 2008).

Threat of Substitute

The "Threat of Substitute" is the fourth factor of Potter's Five Forces (Potter, 2008). Although Bolt is usually considered as Uber's replacement in South Africa, Uber and Bolt may not have given adequate consideration to the many other competitors that exist in the industry.

This could have an impact on the profitability of owning an Uber and Bolt vehicle, and it was tested in the study by determining whether the presence of rivals in the South African e-hailing market to Uber and Bolt does affects profitability, or not.

Entrants Threat in the Industry

"Entrants Threat in the Industry" is the fifth force of Potter's Five Forces (Potter, 2008). Greater supply of Uber and Bolt vehicles than market demand could have a negative impact on profitability (i.e. supply outpaced the demand). The study employed exploration of this force to determine whether the existing barriers to entry in the South African e-hailing market have no bearing on the profitability of owning an Uber or a Bolt vehicle.

The next section describes the method adopted in the research approach of the study.

Research method:

The research study adopted a qualitative approach to its investigation. Questionnaires and in-person interviews were utilised to gather data.

The next section describes the data collection and analysis.

Data analysis:

- The research data was stored and categorised using Microsoft Excel.
- The research data was analysed with the use of Microsoft Excel and following a thematic analysis approach.
- Validity and reliability were addressed by seeking an alternative explanation to what had already been provided by other participants. Validation was carried out by the researcher both by reading the online material and enquiring further, during physical interviews.

The next section outlines the research study sample.

Research sample:

According to reports, Uber employed over 20 000 drivers and delivery personnel in South Africa as of October 2022 (Venter, October), whereas Bolt was expected to have 40 000 drivers by 2023 (Malinga, Bolt Looks to Create 30 000 Jobs in SA, 2023). Eight Uber and Bolt car drivers were the sample size for the research study, which concentrated on the transportation industry and the business of Uber and Bolt services.

According to the formula by Krejcie & Morgan (1970), for a population of more than 20 000, a minimum of 377 samples is appropriate. However, such a sample is voluminous, considering the length of the research study, and also that the e-hailing drivers partake on consent in the research study.

The drivers of the vehicles were randomly chosen in Johannesburg and Durban since they were accessible to the researcher in the two locations. Given that the researcher scheduled in-person meetings and appointments with the vehicle drivers, travelled to them, and conducted interviews, the sample size of eight Uber and Bolt drivers was reasonably appropriate.

Sampling technique

The sample was chosen using a random sampling process.

The next section explains the operational definitions of the research study.

Operational definitions:

- **E-Hailing:** sometimes known as "ride hailing" or "ride sharing," is the practice of requesting to be transported in a private car driven by its owner (or driver) for a charge. This is typically done online (Hunaiti, Al Masarweh, Huneiti, Alshebailat, & Tania, 2018). This operational definition was applied broadly in the research study to the act of customers physically requesting a trip and being transported from one point of origin to another.
- **Market:** a platform, whether physical or not, where the exchange of commodities and services takes place and influences supply and demand dynamics (Hossain, May 2020).
- **Supernormal profit:** a profit that exceeds the average profit. Supernormal profits can be defined as positive Net Present Value (NPV) in projects that, according to projections, have expected returns higher than the Opportunity Cost of Capital (OCC). In other words, the projects' projected returns indicate more return than the amount of risk involved, or, on the other hand, less risk than average project returns suggest (Geltner, Kuma, & Van de Minne, 11 July 2022).
- **Uber:** is a transportation business that offers an application that lets drivers charge for their services and lets passengers hail (or request) a trip.
- **Bolt:** a transportation company with an application that lets drivers charge for their services and passengers hail (or request) rides.

The next section outlines how the final dissertation of the research study is structured.

Dissertation structure:

The study's dissertation structure is organised chronologically as follows:

- *Introduction:*

This section includes an introduction to the study, a background explanation of the study, an explanation of the problem statement, a summary of the study's questions and objectives, a justification of the study's necessity, and an explanation of its limits.

- *Literature review:*

In this section, the recent and accepted relevant literature is reviewed, to identify and clearly point out the gaps that the current study addressed.

- *Materials and methods:*

All of the materials (tools, apparatus, software, etc.) utilised to gather data for the research project was described in depth in this part. The study will also go into detail about the techniques used.

- *Research results:*

The findings from the gathering of data, information, and investigations were clarified, analysed, and supported.

- *Results discussion:*

The comments relevant to the findings were discussed in this section.

- *Conclusion and areas of further research:*

Based on the findings and discussion, the study concluded with some observations. Suggestions were made for further research, which will allow for more investigation.

The next chapter critically scrutinises the literature of the research study.

CHAPTER 2

Critical literature review:

2.1. Introduction to critical literature review

The literature review for the research study starts with an overview of the general e-hailing industry's economics. The economics of e-hailing in relation to SA is then covered. The literature extends (even more narrowly) on the economics of Uber and Bolt within the framework of the e-hailing market in South Africa.

Regarding the topic of the research study in the context of South Africa, the metered taxi industry is the market that Uber and Bolt have entered, as was indicated in Chapter 1. This examination of the literature explores the same market and how it has performed since Uber and Bolt entered the market.

Research studies on Johannesburg's e-hailing taxi services are still very scarce (Adenigbo, Mageto, Makan, & Luke, 2023). The limited research on e-hailing taxi services that are currently available looked at employment and criminality (Adenigbo, Mageto, Makan, & Luke, 2023).

Because they offer a dependable substitute for conventional forms of transportation, ride-hailing services have grown in popularity in South Africa (Wilmans & Rashied, 2021). Yet, in the country there is a lack of scholarly literature about the drivers who operate in ride-hailing business (Wilmans & Rashied, 2021). Not only has the scarcity of a relevant and accepted literature in the e-hailing industry plagued South Africa only, but other parts of the world too (Chen & Nie, 2017).

2.2. The economics of e-hailing

Although in the African context, local governments have forced e-hailing companies to make some significant changes to their business model, e-hailing

is also thought to be exacerbating disparities between those who control technology and capital sources and those who do not, more in particular in the way it benefits the two classes (Boateng, Appau , & Baako, 2022). A study conducted in Ghana (Boateng, Appau , & Baako, 2022) put forward an argument that the benefits of e-hailing technology are only available to a limited group of people, primarily the younger, highly educated, and relatively well-off class, but they are raising the bar for the quality of road transportation experiences.

Generally, when a e-hailing firm offers a minimum salary guarantee, a company-sponsored benefit plan, and information tools that safeguard drivers' privacy and enable them to screen for unwanted customers, this often increases the drivers' utility and desire to work for e-hailing companies (Hong, Bauer, Lee, & Granados, 2020).

The unequal power dynamics that underpin the e-hailing industry have also resulted in the economic opportunities it provides going to a select few powerful players (such as e-hailing companies and car owners), igniting "turf wars" between traditional and online taxi drivers, exacerbating gender disparities in access to opportunities for earning income in the commercial passenger transport sector, and promoting unsafe driving habits (Boateng, Appau , & Baako, 2022).

E-hailing is also thought to be modernising the taxi transportation industry. A study (Dhawan & Yadav, 2018) on consumer behaviour, conducted in India reveals that a hundred of the hundred and twenty respondents interviewed as part of the research on payment methods, pay with cash. Thirteen utilise debit or credit cards. Thirty-eight people use e-wallets, which is a positive sign that the economy is moving toward a cashless life. Just five respondents said they make payments using internet banking.

The proliferation of smartphones and related applications in recent years has contributed to the explosive rise of the online sharing economy, which includes companies like Uber, Bolt, Peerby, Turo, Lyft, and Airbnb (Guo, Xin, & Li, 2020). These new peer-to-peer web services, dubbed "collaborative consumption," have

created enormous profits by enabling users to share their unused resources and generate substantial revenue (Guo, Xin, & Li, 2020).

According to (Molobi, Kabiraj, & Siddik, 2020), over 54% of South Africa's 57 million residents are frequent internet users, a 29% rise from 2014. This demonstrates how quickly connectivity and internet access have grown over the past few years. The Independent Communications Authority of South Africa reports that the country has had a high rate of smartphone adoption, with at least 82% of smartphone users utilising their devices to access the internet, up from 43.5% in 2016 (Independent Communications Authority of South Africa The state of the ICT sector report in South Africa, 2019).

The South African economy is affected by the growing use of the internet, particularly with regard to the uptake of technology advances like Uber, online shopping, and general transactional activities (Molobi, Kabiraj, & Siddik, 2020). Artificial intelligence is also seen to play an important role in the e-hailing space. For instance, it performs the function of gathering, storing, and analysing data for a variety of objectives, including producing insights, forecasting trends, and learning more about human behaviour to enhance and offer users exceptional services (Lau, Bin Fauzi, Wai, Bin Nazrizal, & Loon, 2023). Thus, optimising efficiency and elevating the e-hailing system's standing in the market today is a 'must' (Lau, Bin Fauzi, Wai, Bin Nazrizal, & Loon, 2023).

Based on subjective evidence (Cramer & Krueger, 2016), incumbent businesses in the hotel, taxi, and other sectors face intense competition from the sharing economy companies (Guo, Xin, & Li, 2020). As an illustration, in the US, eMarketer (eMarketer, 2016) estimated that 20.5% more persons than in 2015 – nearly 15 million adults – would use Uber, Lyft, or other e-hailing services at least once in 2016.

For some reason, the e-hailing industry is seen to be successful to a certain extent, in moving customers for the traditional taxi industry, from using private modes of transportation and traditional taxis, to using e-hailing. Results of a study

(Haddad, et al., 2019), conducted in Sao Paolo, Brazil, indicated that 83% of journeys taken by e-hailing now, originated from travels taken by conventional motorised private modes of transport in the past.

The actual source of concern is the consumers' (riders' and drivers') ability to easily switch between mobile ride-sharing applications (Salim, Haziq, Bin Osman, & Nor, 2020). It is possible for the competition to get very fierce for both drivers and riders (Salim, Haziq, Bin Osman, & Nor, 2020). For businesses offering on-demand access, customer switching costs and brand loyalty are typically much lower because end users merely need to download a new application (Salim, Haziq, Bin Osman, & Nor, 2020).

E-Hailing may have a competitive advantage of quicker turnaround times when compared to the traditional taxi industry. A study (Gan, Fan, Jiao, & Sun, 2021) was conducted in China, to examine changes in the driver behaviour before and after using e-hailing applications. The results showed an increase in the number of long distance (more than 10 km) trips after the introduction of e-hailing applications. Moreover, the number of trips increased in the evenings and early in the mornings. The reason behind the increase in number of trips is believed to be the fact that no time is lost to other factors such as payment and counting of payments (Gan, Fan, Jiao, & Sun, 2021).

Numerous research studies have been carried out to examine how the introduction of e-hailing applications may affect local laws, the e-hailing industry, and the optimisation of e-hailing application algorithms (Guo, Xin, & Li, 2020). Nevertheless, no systematic study or understanding of the effect of e-hailing on the demand for new cars has been conducted (Guo, Xin, & Li, 2020).

On the one hand, travellers can now easily and affordably acquire resources for idle cars, evading the monetary, psychological, and social responsibilities of ownership (Eckhardt & Bardhi, 2015). In 2014, there was a claim that Uber was adding 50 000 new 'driver jobs' every month worldwide, and tens of thousands of

people were working as full- or part-time drivers on different e-hailing platforms (Guo, Xin, & Li, 2020).

It's also important to keep in mind that some passengers may leave or postpone their plans to buy a new car as a result of e-hailing services, which could have a detrimental effect on new car sales in these emerging nations (Guo, Xin, & Li, 2020). Their judgments are influenced by the advantages of using e-hailing services to make efficient, point-to-point urban travel possible (Wallsten, 2015). Also, the modern society is becoming more accustomed to the use of public transport in various countries and the e-hailing technology is accelerating the trend (Kalhor, Yong, Ramendran, & Senadjki, 2022).

People who can afford cars are more likely to possess their own cars and to use public transportation less frequently (Al-Shakhrit, Masri, & Othman, 2021). In cities, a growing number of cars are privately owned because they are both expensive and necessary (Al-Shakhrit, Masri, & Othman, 2021). Research on car ownership and driving habits reveals that the primary consideration when choosing whether or not to buy and operate a vehicle, is mobility (Al-Shakhrit, Masri, & Othman, 2021).

With capital participation, the e-hailing platform may swiftly attain the basic market capacity needed for platform economic development, modify the life cycle of Internet platform firms, and cultivate the economic habits of both the supply and demand sides through subsidies (Xuecheng, 2019).

A study (Bokányi & Hannák, 2016), conducted in the United States of America examines the impact of algorithmic design choices on the disparity in wages (in particular for drivers) across e-hailing services. The findings demonstrate that even minor adjustments in the system can result in significant variations in the drivers' income distributions, creating an unpredictable system that frequently pays drivers who perform comparably differently (Bokányi & Hannák, 2016). Recent research suggests that these temporary income disparities could lead to long-term, enforced wage inequities (Bokányi & Hannák, 2016).

2.3. Passenger safety on e-hailing

Although the advent of e-hailing could be perceived as creating more potential for criminal activity (Stickle, 2023), it is also thought to improve passenger safety given the alleged decline in drunk driving (Dills & Mulholland, 2017).

The adoption of e-hailing is perceived to have an impact on road safety in urban areas in addition to increasing passenger safety. Research carried out in Madrid, Spain (Flor, Ortuño , & Guirao , 2022), discovered that there has been a 25% drop in the incidence of fatalities and major injuries on metropolitan roadways since the launch of the Uber and Cabify platforms.

Though there has been a noticeable decline in road deaths in major cities since Uber's launch, it's plausible that other nations, where the risk of traffic fatalities is significantly lower overall, might not have a comparable link (Kirk, Cavalli, & Brazil, 2020). In fact, more traffic congestion brought on by more car trips may actually raise the risk of accidents rather than diminish them in nations with significantly lower incidence of traffic accidents than the larger states (Kirk, Cavalli, & Brazil, 2020).

In the context of South Africa, not only is passenger safety the concern, but also drivers' safety. For instance, in March 2023, a 28-year old driver, Mr. Mnguni, was shot four times after being taken hostage by criminals posing as riders, whom he had met at Glen Austin in Midrand, in the Gauteng Province (Malinga, E-hailing drivers protest outside Alexandra Magistrate's Court, 2023).

2.4. Regulations on e-hailing

Regulations, according to e-hailing study researchers (Zaigham , Chin , & Dasan , 2022), are crucial to the industry because they prohibit unfair competitive advantage and guarantee that e-hailing's technological component is regulated (Zaigham , Chin , & Dasan , 2022).

Since cab drivers are aware of the customers' origins and destinations in advance, e-hailing services, such as Didi in China and Uber in the US, can facilitate direct communication between passengers and drivers through technology (Fang, Su, & Huang, 2018). Nonetheless, the taxi industry frequently reports on a number of unsettling issues, such as unfair competition, safety concerns, longer working hours, surge pricing, request rejection, and an increase in difficulties among older people hailing taxis (Fang, Su, & Huang, 2018).

The e-hailing transportation services industry, which encompasses Uber and other platforms, is plagued by a number of ongoing legal, technological, and safety concerns (Edema, 2023). The intricate relationship between novel concepts and established systems is particularly noteworthy due to the numerous legal and regulatory issues that arise (Edema, 2023). Technical issues are exacerbating the threats, so measures to safeguard user privacy, strengthen platform resilience, and enhance cybersecurity must be implemented and regulated (Edema, 2023). Prioritising the establishment and upkeep of robust technical defenses is vital in safeguarding user data against unauthorised access, system malfunctions, cyberattacks, and e-hailing platforms. This must be carried out to guarantee the security of user information (Edema, 2023).

Part of the reason for regulations in the e-hailing space is to create competition, however, from the author's point of view; the idea that introducing competition will certainly break the monopoly of market policies may be disingenuous. For instance, a study conducted in China (Ma, Li, Wu, & Yan, 2018), showed that when the government often introduces competition, both the initial market monopolist and the competitors are usually commercial capitals. By exchanging competitive knowledge, both sides may establish corporate partnerships and cartels. Both sides to the competition can circumvent laws or policy rules through commercial mergers or implementation protocol control agreements, even if the government may enact anti-monopoly legislation to prohibit business alliances (Ma, Li, Wu, & Yan, 2018).

While many governments have permitted rideshare services to compete with taxis while enforcing significantly fewer regulatory constraints, several towns have outlawed the new services (Cetin & Deakin , 2019). This has led to the emergence of new policy questions, such as whether ridesharing services and taxis should be regulated differently or, more generally, what laws are suitable given the new technologies that both regular taxis and the new services utilise (Cetin & Deakin , 2019).

It remains to be demonstrated using a thorough model whether e-hailing laws have an impact on the pricing of premium rides (like UberX). A study by (Yang, Zhao, Wang, & Xu, 2022) examined how two regulatory targets—one based on the demand for taxi services without a franchise charge (DTR regulation) and the other on the profit of taxi services with a franchise fee (PTR regulation)—affected platform pricing decisions. According to the analysis, there is no difference in platform price between regulation and non-regulation (Yang, Zhao, Wang, & Xu, 2022). The results also demonstrate that, in certain circumstances that are dependent on taxi fares, two services can coexist without regulation (Yang, Zhao, Wang, & Xu, 2022).

Additionally, the results imply that PTR regulation may lead to a lower or higher level of regulatory intensity, with a lower taxi fare being associated with a higher likelihood of regulatory intensity (Yang, Zhao, Wang, & Xu, 2022). The study also looked into how regulations affect social welfare. It was discovered that unless the platform offers a low-cost service and the two services are extremely comparable, the restriction has little impact on social welfare (Yang, Zhao, Wang, & Xu, 2022).

Regulators probably underestimate how much of a regulatory space e-hailing occupies. A few components of the regulatory space are often overlooked by researchers. For instance, the bulk of recent research in the literature cover topics like privacy, technology, law, regulations, and so forth; no studies, however, address concerns about ride-sharing programs' impact on personal safety (Hernandez, Jaramillo, & Nieto, 2021). In addition, there are still a number of gaps

that need to be filled, regulations are not well recorded across jurisdictions, and legislators and city planners typically start by asking about the regulations that are in place in similar metropolitan regions (Beer, Brakewood, Rahman, & Viscardi, 2017).

According to (Witt, Suzor, & Wikstrom, 2015), creating more conceptual models of how private actors control complex systems and how the state might influence their behaviour is essential to comprehending the major regulatory issues facing the e-hailing industry. Contrary to popular assumption, these disputes are not between regulated and unregulated systems (Witt, Suzor, & Wikstrom, 2015). Gaining a deeper comprehension of the crucial regulatory work carried out by strong, centralised private companies – both market leaders in established markets and game-changing network operators in peer economies – is necessary to comprehend these regulatory difficulties (Witt, Suzor, & Wikstrom, 2015).

2.5. General performance of e-hailing demand vs supply

Accessibility has the biggest impact on customer satisfaction, then come affordability, comfort, and safety (Sabar, 2023). It's clear that consumers appreciate having access to e-hailing services highly (Sabar, 2023). Because passengers always select services that make it easier for them to reach their destination, accessibility has a big influence on client satisfaction (Sabar, 2023). Consumers think that in addition to accessibility, the price of e-hailing services should be reasonable (Sabar, 2023).

Given that e-hailing services like Uber and Lyft use supply and demand to inform their pricing algorithms, there is a chance that there may be severe imbalances that will harm one side of the market even after it levels out (Hong, Bauer, Lee, & Granados, 2020). In situations where there is an excess (or a high number) of drivers and very little demand, prices may drop below what is necessary for drivers to make ends meet (Hong, Bauer, Lee, & Granados, 2020). Drivers are thus not properly served. On the other hand, surge pricing may result in high consumer costs or subpar rates when compared to other platforms (or rival

modes of transportation) if there is a strong demand and a shortage of drivers (Hong, Bauer, Lee, & Granados, 2020).

The variables influencing the demand for e-hailing are not well understood (Etminani-Ghasrodashti & Hamidi, 2019). Riders "flow into the system, spend some time in it, and then flow out" in an input/output system such as an e-hailing system (Xu, Yin, & Ye, 2019). When the number of riders increases, an e-hailing system's output rate may decrease (Xu, Yin, & Ye, 2019). Therefore, in order to regain control, action must be taken. Furthermore, if drivers withdraw from the market, the system can fail (Xu, Yin, & Ye, 2019).

Economically speaking, it makes sense in theory that as more people buy private vehicles, demand for e-hailing services declines, especially in nations where the percentage of private vehicle ownership is unrestricted (Ling, Lai, & Feng, 2019). Over 50 000 taxi drivers in New York City (NYC) were serving 600 000 passengers every day by the end of 2014 (Ling, Lai, & Feng, 2019).

The largest application-based third-party service in China, DiDichuxing, must process over 11 million orders and 9 billion route planning requests every day (Ling, Lai, & Feng, 2019). The 10% vehicle ownership limit encourages the use of application-based third-party (ABTP) taxi services (Ling, Lai, & Feng, 2019).

According to (Ling, Lai, & Feng, 2019), one of the key elements in a series of variables affecting the demand for e-hailing trips is land use. In their research (Ling, Lai, & Feng, 2019), The authors discovered that various land use characteristics lead to various patterns of activity. In residential property, the morning peak gap has been emphasized, whereas in commercial property, the evening peak gap has been stressed. The mix property's mobility pattern is rather smooth. But due to data restrictions, the researchers (Ling, Lai, & Feng, 2019) disregarded price's effects, which could be among the most significant determinants of the supply and demand equilibrium.

The number of transportation stations, average block size, employment density, and residential density all significantly and favourably affect the demand for taxi

rides (Etminani-Ghasrodashti & Hamidi, 2019). There is a greater demand for taxis in places like Central Business Districts (CBDs) where there are more jobs than homes (Etminani-Ghasrodashti & Hamidi, 2019). Among sociodemographic characteristics, income is also found to be strongly correlated with taxi demand (Etminani-Ghasrodashti & Hamidi, 2019).

The transportation sector is currently seeing the biggest technological change in a century. New on-demand transportation models are using advancements like GPS chips to create application-based, on-demand transportation that efficiently and dependably links drivers and passengers (Etminani-Ghasrodashti & Hamidi, 2019). As a result, more and more cities are debating whether to switch from mobility networks to application-based, on-demand systems in order to reduce the cost of fixed-route transit (Etminani-Ghasrodashti & Hamidi, 2019). Considering the financial difficulties Iran is facing as a result of the economic sanctions, this shift may be even more significant (Etminani-Ghasrodashti & Hamidi, 2019).

The next chapter outlines the research methodology.

CHAPTER 3

Methodology (materials and methods):

Materials used:

- A paper-based unstructured questionnaire was used as part of the data collection. The questionnaires were filled by the researcher based on the information or responses provided by the research participants.
- Microsoft Excel was used to record and classify the responses from the paper-based unstructured questionnaires. Microsoft Excel was also used to perform some of the numeric calculations where required. A numeric calculator was used to validate the calculated results of the analysed data.
- A personal cellular phone that belonged to the researcher was used to request e-hailing rides from Uber and Bolt, upon which the drivers were asked to form part of the research study.
- The Uber and Bolt drivers made use of the e-hailing applications installed in their cellular phones, to confirm available information and data requested by the researcher.

Methods adopted:

- *Interviews:*

The researcher performed in-person interviews with Uber and Bolt drivers in order to gather data for the study. The data collected through interviews was limited to a period of approximately three years (i.e. from January 2021 to August 2023). The researcher used the Uber and Bolt applications to request rides (to and from various destinations), and then the researcher asked the drivers to participate in the research study. A payment of R150.00 was offered to drivers who agreed to participate in the study in exchange for their missed operating time, where it was required.

Depending on which driver accepted the researcher's request for a ride, drivers were chosen at random. To conduct the interviews, the drivers parked their cars in front of gas stations in some cases and at restaurants in others. The drivers were questioned beforehand about whether or not they would consent to the recording of the interviews, but they declined. The duration of each interview was about thirty minutes.

A total of eight drivers were interviewed – four drivers (two for Uber and two for Bolt) were interviewed in Johannesburg, in the Gauteng Province of South Africa. Other four drivers (two for Uber and two for Bolt) were also interviewed in Durban, in the Province of KwaZulu Natal, in South Africa.

The Uber and Bolt applications could only provide financial and rides requests (and acceptance) data for the last three months in which the drivers had been conducting business – data dating back beyond three months in history could not be accessed. Such data was recorded by the researcher, on the basis of estimations by the drivers.

Data sets were divided into eight categories, which incorporated four drivers' data (two for Uber and two for Bolt) in Johannesburg, and four drivers' data (two for Uber and two for Bolt) in Durban.

The next chapter details and interprets the research study results.

CHAPTER 4

Research results:

The results are reported firstly for competitiveness, and secondly, for profitability in the e-hailing business in South Africa. The competitiveness results are reported following the theoretical framework adopted in the study. The profitability results are a summary of calculations made from the data reported by the eight participants in interviews, with regards to revenue generation minus all known costs. The profitability results are derived from a three years' worth of data (from January 2021 – August 2023), and it's broken down monthly.

The summarised primary data for the results reported in this chapter are found in Appendix 1 (i.e. average monthly number of rides vs revenue generated), Appendix 2 (i.e. summary of monthly revenue generated vs expenses), and Appendix 3 (i.e. theoretical framework-related data). The results are reported for participants 1 – 8, which are explained in Table 1:

Table 1 - descriptions for research Participants 1 – 8.

Participant	Description	City
1	the first Bolt driver interviewed	Durban
2	the second Bolt driver interviewed	Durban
3	the first Uber driver interviewed	Durban
4	the second Uber driver interviewed	Durban
5	the third Bolt driver interviewed	Johannesburg
6	the fourth Bolt driver interviewed	Johannesburg
7	the third Uber driver interviewed	Johannesburg
8	the fourth Uber driver interviewed	Johannesburg

The researcher begun with interviews in Durban and completed in Johannesburg.

Competitiveness Results

Table 2 presents the research participants' percentage contributions to different critical perspectives that are associated with Porter's Five Forces, with respect to competitiveness in the South African e-hailing industry.

Table 2 – research participants' percentage contribution to different critical perspectives, associated with Porter's Five Forces, with respect to competitiveness in the South African e-hailing industry.

Participant's Critical Opinion	Competition in the e-hailing Industry in SA		Power of Suppliers		Power of Customers		Threat of Substitute		Threat of New Entrants	
	Number of Participants in Support of the Critical Opinion									
	Total	%	Total	%	Total	%	Total	%	Total	%
E-hailing industry competition has increased over years	6/8	75								
E-hailing industry competition has not increased over years	2/8	25								
Insurance costs are excessive			2/8	25						
Uber's/Bolt's commission is excessive			6/8	75						
Number of customers has decreased over the years					8/8	100				
There is a severe threat of substitute							7/8	88		
There is no threat of substitute							1/8	12		
There is a severe threat of new entrants (number of cars)									8/8	100

Profitability Results

Table 3 presents the average costs directly affecting profitability of owning an Uber or Bolt vehicle. Vehicles financed through debt are not considered in Table 3. The costs in Table 3 are simple average estimations derived from the data recorded in Appendix 2.

The data in Table 3 indicates the monthly average costs that potential entrepreneurs would face, if they were to register cars with Uber or Bolt in South Africa.

Table 3 – some simple monthly average costs directly affecting profitability of owning an Uber or Bolt vehicle.

Expense	Average Cost
Fuel	R 9,875.00
Insurance	R 1,957.00
Service	R 1,863.00
Repairs and maintenance	R 2,288.00
Uber/Bolt commission	24% of revenue

Evident in Appendix 2 is that the average number of rides completed by a driver range from 20 – 65 in a month. The estimated revenue generation did not take into account the time of the day at which the rides are completed. The estimated revenue generation by a driver ranged from R16 000.00 – R26 000.00.

Dependent on expenses per car, but estimated profits after known costs, range from just over R900.00 to just below R4 000.00. Where a car is financed through debt provided by a bank, it may not be possible to generate profits – and some vehicle owners would ultimately run the business at a loss.

CHAPTER 5

Results Discussion:

The e-hailing market in South Africa is clearly a very competitive one based on the results presented in Chapter 4. This may be because the sector is not regulated in a stringent enough manner, as Chapter 2 argues. The e-hailing sector competition in South Africa is rooted in both macro and microenvironments. Also important to note is that even though having many vehicles registered in the industry makes an owner competitive, in the macro environment, the same vehicles are seen as competition unto each other, particularly where vehicles are operated in close proximity to one another.

Generally, drivers fear the anticipated significant competition, more in particular given the fact that they occasionally note new e-hailing vehicles registered under various companies. This creates a threat of substitute in the business. A driver, generally has a 10% - 20% probability of getting business on a normal day, given the available supply of vehicles at any instance. As Cited in Appendix 3, the lack of stringent regulations in the e-hailing industry in South Africa is one of the main causes of fierce competition. This signifies the threat for new entrants in the industry.

Drivers are concerned of the possibility of a rise in customer power if the supply in the e-hailing space keeps outpacing the demand. This would ultimately mean that rides would be accepted and completed on the basis of customers' terms. Drivers are also concerned of the supplier power held by organisations such as Uber and Bolt, which stems from their ownership of the business trading platform itself, without which e-hailing would be extremely challenging to do business in.

In light of profitability, as it is evident in Appendix 2, it is no longer profitable to conduct business with one vehicle in the e-hailing industry in South Africa. The costs to run a e-hailing business are nearly on par with revenue generated.

Unmanageable costs such as fuel prices and insurance costs contribute to significantly to the business.

Even though none of the participants interviewed had their cars still under bank finance – the profit estimations in Appendix 2 indicate that it would be nearly impossible to generate profits with a vehicle under bank finance, in the e-hailing industry in South Africa. The problem could be remedied by registering multiple cars, and planning the business such that some cars service the financial debt for others. Evident in Appendix 2, is that the lowest profit generated by a driver is just over an average of R900 per month.

The link between the results and the theoretical framework adopted in the research study is examined below:

(i) Competition in the e-hailing industry in South Africa

The level of competition on a normal day was measured by viewing a driver's Uber/Bolt application and counting the number of Uber/Bolt cars available on the map, to accept the rides. A car won't show up on the map if it has a paying passenger. A driver won't show up on the map if they are not on duty. Only available automobiles are displayed.

Both Uber and Bolt drivers' applications displayed a total of between 5 – 10 cars available on the drivers' applications. This means that each driver has a 10% - 20% probability of accepting a single ride request at all times. This also means that the driver has about 80% - 90% competition on a normal business day. A customer has about a 100% probability of getting a ride accepted in a reasonably short space of time.

Essentially, the application sends an alert and allows the closest driver an opportunity of approximately 15 seconds to accept a ride request, before the request disappears, so that the next closest driver can be alerted of the ride request.

(ii) Power of Suppliers

Evident from the questionnaire in Appendix 3, is that about 37.5% of the interviewed participants felt that Uber's commission is excessive, and this is affecting the profitability of their business, whilst another 37.5% of the drivers felt the same about Bolt. About 25% of the interviewed participants feels that the insurance costs are excessive, and this affects their businesses' profitability.

Uber and Bolt have sufficient supplier power in the e-hailing business between themselves and drivers, given that, without the e-hailing application, it would not be possible for drivers to conduct business with ease. The supplier power for Uber and Bolt vehicle insurance companies roots from the fact that Uber and Bolt would not accept uninsured vehicles to operate under their banner.

(iii) Power of Customers

It is clear from the Appendix 3 questionnaire that all of the interviewed participants feel like their ride requests have decreased over time. Moreover, 25% of the participants feel that the decrease in the number of rides (or customers) means that customers would have more power to take rides on their terms – for instance one participant thought that customers may choose to cancel rides anytime if drivers do not agree to their terms. The rest of the participants do not think that the decrease in number of customers can have influence on the customer power.

(iv) Threat of Substitute

The threat of substitute item in the questionnaire focuses on direct competition for a driver. Based on their daily experiences, drivers were asked to respond to a series of questions about their perceptions, such as how often they saw new cars bearing logos other than those of Uber and Bolt. The question's aim is based on the idea that when more businesses enter the e-hailing space, there are more alternatives available.

Evident from the questionnaire in Appendix 3, is that about 87.5% of participants think that there is a high possibility for new entrants to the e-hailing space, based on the number of new e-hailing company cars they come across in a normal day. Part of the reasoning behind this thinking was that large businesses from outside

South Africa can easily start new businesses and introduce them in the e-hailing industry in South Africa.

The other reason was that given the current regulations, it's easy to enter the industry. One driver thought that there's currently over supply in the industry, and that potential new entrants would have to develop a new unique feature or initiative to introduce in the industry, otherwise there's not much interest from new potential entrants.

(v) *Threat of New Entrants*

The question of new entrants was focused on the drivers' day-to-day experience and perception in light of the quantity of cars that enter the e-hailing space, regardless of the company they are registered under.

All of the interviewed participants felt that there is a threat for new entrants (i.e. cars introduced in the e-hailing space). Part of the reasoning behind the participants' thinking is that owner-drivers work in the e-hailing industry, with the aim of purchasing and registering more cars. For instance, one owner-driver (participant) started with a single car in business, and in 2023, he owned and registered 3 cars. In the year 2023, the e-hailing regulations in South Africa were not very intentional about regulating the quantity of cars that were registrable in the e-hailing industry by each vehicle owner.

Some participants felt that, because the unemployment rate is high, drivers start by driving for other owners, until they qualify to buy their own cars and register them in the e-hailing space. All participants felt that the increase in new entrants would reduce their potential for better revenue generation.

The next chapter summarises the research study findings, draws concluding remarks and puts some recommendations for further research work.

CHAPTER 6

Conclusion and areas for further research:

Conclusion

The main research problem was the lack of assessment of profitability of the e-hailing registered vehicles in South Africa. The purpose of the research study was to analyse whether or not, it would be profitable for vehicle owners to register vehicles on Uber or Bolt. To address the gap, the study collected and analysed revenue vs. cost data, as well as examined competition and profitability in the e-hailing market, with an emphasis on Uber and Bolt in South Africa.

The summary of the finding, policy implications, limitations of the study and areas for further research are addressed below:

6.1. Summary of the findings

From the research results, it is safe to state that the e-hailing business in South Africa produces no profits. A driver's lowest profit is slightly more than the monthly average of R900. Profits would be possible, for owners that own multiple vehicles registered in the business.

Minimal profits are attainable in circumstances where vehicles are fully owned and not financed through debt. It is evident that when Uber and Bolt started operating in South Africa, the supply may have been lower than the demand, since the industry was at its inception. In the recent times, the business is so competitive, that each driver has only 10% - 20% probability to get business, at any instance.

Responses from drivers indicate a significant concern for anticipated fierce competition in the industry in the nearer future. The guarantee to thrive in the business will mean that vehicle owners need to innovate features that will target

a specific niche market in the same industry, or continuously develop unique ideas.

6.2. Policy implications and recommendations

Given the policies governing South Africa's e-hailing market, the government should consider ways to regulate Uber and Bolt as businesses operating in South Africa. As reported in the research study, metered taxis generally charge about 265% when compared to Uber's fare, which indicates the need for strict regulations and monitoring of compliance.

The cost paid by drivers to Uber and Bolt per trip, should be regulated, to alleviate the pressure of costs to conduct business in the e-hailing market in the republic. Regulations in the business of metered taxis should be applicable to the role players in the e-hailing space as well, in order to achieve fair competition in the taxi industry that is outside the traditional taxi market.

6.3. Limitations of the study

The study was limited to the e-hailing market in South Africa. It only focussed on Uber and Bolt. Data was collected only in Johannesburg, in the Gauteng province and in Durban, in the KwaZulu Natal province of South Africa. UberX, UberBLACK, and UberGO were disregarded in the research study. With regards to Bolt, the study only focussed on BoltGo and Bolt Base.

6.4. Areas for further research

The study can be furthered by developing possible unique ideas of the business in the e-hailing industry in South Africa, that will focus on capturing specific niche markets.

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Appendix 1 – Average number of rides vs revenue generated per month:

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 1	Average number of rides per month	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600
	Average monthly revenue (R)	16 740	17 660	19 580	20 140	19 910	20 410	20 820	21 130	18 650	17 580	18 970	19 860
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 1	Average number of rides per month	1 550	1 550	1 550	1 550	1 550	1 550	1 550	1 550	1 550	1 550	1 550	1 550
	Average monthly revenue (R)	18 440	18 820	18 160	19 280	18 330	18 850	17 830	18 580	17 620	19 560	19 830	21 130
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 1	Average number of rides per month	1 500	1 500	1 500	1 500	1 500	1 631	1 516	1 562				
	Average monthly revenue (R)	19 570	21 740	21 480	22 160	21 380	21 510	22 150	22 420				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 2	Average number of rides per month	2 100	2 100	2 100	2 100	2 100	2 100	2 100	2 100	2 100	2 100	2 100	2 100
	Average monthly revenue (R)	22 450	21 980	21 870	19 580	20 930	21 420	19 920	20 570	21 520	21 830	22 240	21 970
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 2	Average number of rides per month	1 950	1 950	1 950	1 950	1 950	1 950	1 950	1 950	1 950	1 950	1 950	1 950
	Average monthly revenue (R)	18 440	19 240	19 810	21 340	19 660	20 710	20 440	19 590	20 240	19 760	20 380	20 880
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 2	Average number of rides per month	2 000	2 000	2 000	2 000	2 000	2 121	2 018	2 073				
	Average monthly revenue (R)	19 570	19 740	21 480	22 160	21 380	21 510	22 150	22 420				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 3	Average number of rides per month	800	800	800	800	800	800	800	800	800	800	800	800
	Average monthly revenue (R)	22 930	22 520	23 140	22 730	23 480	22 280	22 390	23 640	23 170	23 780	23 630	23 450
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 3	Average number of rides per month	750	750	750	750	750	750	750	750	750	750	750	750
	Average monthly revenue (R)	21 220	22 710	21 460	22 330	21 580	21 930	22 150	22 690	21 270	22 180	22 360	22 570
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 3	Average number of rides per month	750	750	750	750	750	772	764	783				
	Average monthly revenue (R)	22 620	22 710	22 960	23 580	23 830	22 840	23 510	23 480				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 4	Average number of rides per month	600	600	600	600	600	600	600	600	600	600	600	600
	Average monthly revenue (R)	18 240	18 970	19 480	19 550	19 180	19 840	19 380	18 980	18 650	19 720	19 390	19 940
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 4	Average number of rides per month	600	600	600	600	600	600	600	600	600	600	600	600
	Average monthly revenue (R)	18 870	19 130	19 270	18 530	19 820	19 660	19 480	18 960	18 940	19 490	19 380	19 550
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 4	Average number of rides per month	600	600	600	600	600	624	644	631				
	Average monthly revenue (R)	18 280	19 610	19 460	19 160	19 470	19 590	18 730	19 230				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 5	Average number of rides per month	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600
	Average monthly revenue (R)	18 590	20 450	19 230	20 640	19 370	19 940	19 430	19 620	19 750	19 250	20 520	20 780
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 5	Average number of rides per month	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600	1 600
	Average monthly revenue (R)	18 440	19 960	20 610	19 790	18 680	20 220	19 950	20 490	19 840	19 340	20 530	20 480
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 5	Average number of rides per month	1 600	1 600	1 600	1 600	1 600	1 692	1 643	1 681				
	Average monthly revenue (R)	18 710	19 570	20 190	19 620	19 560	20 280	19 940	20 450				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 6	Average number of rides per month	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250
	Average monthly revenue (R)	21 640	22 730	23 030	22 190	22 740	23 810	22 220	23 570	22 470	22 590	23 780	24 550
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 6	Average number of rides per month	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250	1 250
	Average monthly revenue (R)	21 280	21 730	23 140	22 910	23 040	22 650	22 450	23 180	21 290	22 530	21 970	22 420
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 6	Average number of rides per month	1 200	1 200	1 200	1 200	1 200	1 238	1 196	1 251				
	Average monthly revenue (R)	19 220	21 250	22 630	22 540	21 980	22 530	23 560	22 780				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 7	Average number of rides per month	700	700	700	700	700	700	700	700	700	700	700	700
	Average monthly revenue (R)	14 260	15 090	16 860	16 430	16 960	16 980	17 950	16 430	16 580	15 970	16 940	17 360
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 7	Average number of rides per month	650	650	650	650	650	650	650	650	650	650	650	650
	Average monthly revenue (R)	14 730	15 810	16 330	16 130	15 260	15 950	16 070	16 590	16 060	15 940	15 830	16 750
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 7	Average number of rides per month	650	650	650	650	650	653	678	684				
	Average monthly revenue (R)	14 030	15 970	16 440	16 710	16 960	15 330	16 140	16 470				

		2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 8	Average number of rides per month	950	950	950	950	950	950	950	950	950	950	950	950
	Average monthly revenue (R)	18 930	21 520	22 070	21 380	21 570	22 170	21 930	22 420	21 960	22 910	23 830	24 050
		2022											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 8	Average number of rides per month	900	900	900	900	900	900	900	900	900	900	900	900
	Average monthly revenue (R)	18 240	19 740	21 630	20 560	21 590	20 480	21 670	19 940	20 740	21 790	21 640	24 670
		2023											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Participant 8	Average number of rides per month	900	900	900	900	900	982	953	928				
	Average monthly revenue (R)	20 420	21 360	22 160	23 670	23 760	22 830	22 920	23 750				

Appendix 2 – Revenue vs Expenses:

	Frequency	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7	Participant 8
Average number of rides	Monthly	50	65	25	20	50	40	20	30
Average revenue (R)	Monthly	20 000	24 000	26 000	20 000	20 000	24 000	16 000	24 000
Insurance (R)	Monthly	(1 500)	(1 500)	(3 100)	(1 800)	(1 781)	(2 300)	(1 578)	(2 100)
Average fuel (R)	Monthly	(10 000)	(12 000)	(12 000)	(10 000)	(12 000)	(3 000)	(8 000)	(12 000)
Service (R)	Quarterly	(1 800)	(2 500)	(1 600)	(1 700)	(1 200)	(2 100)	(1 500)	(2 500)
Repairs and maintenance (R)	Annually	(2 300)	(2 500)	(2 000)	(1 900)	(2 700)	(2 400)	(2 000)	(2 500)
Bolt/Uber revenue commission	Monthly	(23%)	(23%)	(25%)	(25%)	(23%)	(23%)	(25%)	(25%)
TOTAL MONTHLY PROFIT (R)		3 100	3 900	2 100	2 400	990	3 200	1 755	2 858

Appendix 3 – Research questionnaire and responses:

Participant 1 – Durban (KwaZulu Natal Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Bolt</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt:</i>		<i>7</i>
<i>Do you consent to being recorded in the conversation?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Insurance costs are too high.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. It does not.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. I started with 1 car. Now I have 3.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	It's possible. It will create competition.
	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	It was not difficult. It's just a lot of paperwork.

Barriers to entry and level of competition	b) Do you think it's still as easy/difficult now? And why?	Difficult. There is a waiting list now.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	I do not know.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	I feel like there are a lot of cars registered now than when I started joining in 2015.
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	There is competition, as one owner has multiple cars registered now.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	The competition was usually at the airports and Gautrain stations.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition. There are a lot of Bolt cars too.

	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Private taxis at the airports and Gautrain stations. They force consumers to use their service.
	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	3 cars. 4 seaters.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 50 rides.
	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R5000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R4000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I don't know. The prices depend on demand and other factors.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	I can't remember.

	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	Bolt takes 23% of the money I make at all times.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I'd make more money, but it would be the same as using a traditional taxi.
Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Durban.
Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	I would say there was less supply back then.
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	I would say there is more supply than demand now.

	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	I think it's because a lot of people are registering the cars. There is even a waiting list now.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	By reducing the money that Bolt charges per ride.

Participant 2 – Durban (KwaZulu Natal Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Bolt</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>5</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Bolt's charge is too high.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. Not even sure if it does.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. I started by driving so someone and now I own a car.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	No. Unless it starts with a more brilliant idea than Uber/Bolt.
	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	It probably was not difficult. It just needed research.

Barriers to entry and level of competition	b) Do you think it's still as easy/difficult now? And why?	Difficult. One must rent a slot.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. They are legally registered.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	N/A
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is more with metered taxis.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	N/A.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition but Bolt wins due to good prices per ride.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Those in the private taxi industry.
	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	1 car. 4 seaters.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 65 rides.

	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R6000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R6500 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	One can't calculate it. It varies.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	Over 20% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	Bolt charges 23% of the ride now.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I'd make more money, but the demand would drop.
Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Durban.

Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	I would assume there was less supply in 2012.
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	There is more supply than demand now.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	Because businesspeople registered a lot of cars per owner.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	By regulating the limit of cars per owner.

Participant 3 – Durban (KwaZulu Natal Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Uber</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>10</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Uber charges 25% cost per ride.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. It does not influence their power.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. Drivers work to buy their own cars.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	Yes. There are a lot of such new businesses starting.
	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	It was not difficult if one had information.

Barriers to entry and level of competition	b) Do you think it's still as easy/difficult now? And why?	Difficult. Competition is high.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. They have strict requirements for registered cars.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	There was less competition by then.
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is inevitable.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	Competition used to be far less.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition because we work in one territory.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Metered taxis.
	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	4 cars. 4 seaters and a 7-seater.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 25 rides.

	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R6500 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R4000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I'm not sure.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	About 25% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	25% per ride.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I'd make more money.
Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Durban.
	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	There was far less supply in 2012.

Demand vs supply performance	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	There is more supply than demand now.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	A lot of people have joined the business.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	Government to regulate private transport space.

Participant 4 – Durban (KwaZulu Natal Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Uber</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>4</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Insurance is too high.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. It does not influence their power.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. People join the business because of the unemployment rate.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	Yes. Large organisations can start a new similar business.

Barriers to entry and level of competition	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	N/A
	b) Do you think it's still as easy/difficult now? And why?	Difficult. There is a long queue.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. They take roadworthy and safe cars.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	N/A
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is intense.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	N/A
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition. A lot of companies joined the e-hailing space.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Uber is competing with Bolt.
	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	1 car. 4-seater.

Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 20 rides.
	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R5000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R4000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I don't know.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	25% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	25% per ride.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I'd make more money.
Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Durban.

Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	N/A
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	The supply is way more now.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	Taxi owners moved into e-hailing space.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	Registering of cars must be regulated.

Participant 5 – Johannesburg (Gauteng Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Bolt</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>7</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Bolt's charge is too much.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. It does not influence their power.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. My revenue generation will reduce.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	Yes. If there is money, companies in other countries may expand to South Africa.

Barriers to entry and level of competition	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	N/A
	b) Do you think it's still as easy/difficult now? And why?	Difficult. Registration spaces are limited.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. They have quality standard for cars that register.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	There was heavy competition.
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is still heavy.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	There was heavy competition.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition. About 5 cars would be ready to accept 1 request at any time.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Uber is competing with metered taxis and Bolt.

	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	2 cars. 4 seaters.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 50 rides.
	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R5000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R5000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I don't know.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	23% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	23% per ride.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I'd make the same money. I usually get one or two consumers per ride.

Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Johannesburg.
Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	The supply was less at the time.
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	The supply is excessive now.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	Newly employed people start by buying cars for business, than their own private ones.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	Bolt's commission must be reduced.

Participant 6 – Johannesburg (Gauteng Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Bolt</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>5</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Bolt's commission is high.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. They get to cancel rides and choose other rides.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. My revenue generation will reduce.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	Yes. There are a lot of metered taxis getting into the market as is.

Barriers to entry and level of competition	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	N/A
	b) Do you think it's still as easy/difficult now? And why?	Difficult. There are no spaces anymore.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. There are laws governing registration processes.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	There was a competition.
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is still bad.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	There was bad competition.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition. Many cars are always ready to take rides.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Uber is competing with Bolt.

	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	1 car. 4 seaters.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 40 rides.
	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R6000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R6000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I don't know.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	23% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	23% per ride.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	It would not help. I'd make the same money. I usually get one or two consumers per ride.

Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Johannesburg.
Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	The supply was less at the time.
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	The supply is more than demand now.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	Too many people are registering their private cars.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	Bolt's must stop applying discounts on rides.

Participant 7 – Johannesburg (Gauteng Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Uber</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>4</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Uber's commission is high.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. It does not influence their power.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. My revenue generation will be negatively affected.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	Yes. People will still register cars.

Barriers to entry and level of competition	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	N/A
	b) Do you think it's still as easy/difficult now? And why?	Difficult. There are a lot of cars registered.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. They only take certain models of cars and ensure that they are in a good condition.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	There was a competition.
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is even higher.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	There was severe competition.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition. Cars are always available.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Uber is competing with Bolt.

	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	1 car. 4 seaters.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 20 rides.
	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R4000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R9000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I don't know.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	25% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	25% per ride.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I would make more money.

Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Johannesburg.
Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	The supply was the same as now.
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	The supply is still the same.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	The number of Uber cars is increasing by day.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	Uber must supply data and reduce their commission.

Participant 8 – Johannesburg (Gauteng Province)		
<i>Please indicate your relationship with Uber/Bolt</i>		<i>Driver and owner</i>
<i>Do you conduct business with Uber or Bolt?</i>		<i>Uber</i>
<i>Please indicate your years of experience, having the relationship with Uber/Bolt</i>		<i>8</i>
<i>Do you consent to being recorded in this interview?</i>		<i>No</i>
Focus area	Question	Response
Supplier power	Would you say your suppliers such as insurance companies, Uber/Bolt, vehicle dealers, vehicle service centers etc. have had influence on profitability of your business, and why?	Yes. Uber's commission is high.
Consumer power	Would you say that there are more or less consumers than you expected in the market? And how do you think this influences their power?	Less. Consumers can take a ride on their terms.
Entrants threat	Would you say there has been (or there still will be) a threat of a lot of new cars to be registered with Uber/Bolt? And how do you think this will affect your profitability?	Yes. My revenue generation will ultimately be reduced.
Threat of substitution	Would you say there has been (or there still will be) a threat of similar businesses to Uber/Bolt in the e-hailing space at large, in SA? And how do you think this will affect your profitability?	Yes. It's easy to register cars.

Barriers to entry and level of competition	a) Please describe how easy/difficult it was to register your vehicle(s) with Uber/Bolt, at the time Uber/Bolt was introduced in South Africa (SA) (in 2012)?	N/A
	b) Do you think it's still as easy/difficult now? And why?	Difficult. The supply has become too much.
	c) In your opinion, would you say Uber/Bolt are fully compliant with e-hailing regulations in SA? And why?	Yes. They have requirements to be met by registering cars.
	d) Based on experience, how would you describe the level of competition in the e-hailing space in SA, at the time of Uber's/Bolt's inception (in 2012/2016 or nearer)?	There was less competition.
	e) Based on experience, how would you describe the level of competition in the e-hailing space generally in SA, now (in 2023)?	The competition is higher now.
	f) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA, (in 2012/2016)?	There was a lot of competition.
	g) Based on experience, how would you describe the level of competition amongst Uber/Bolt cars in SA now (in 2023)?	There is competition. There are many cars in town.
	h) Who(m) would you say is/are a threatening competitor(s) for Uber/Bolt in SA? And why?	Uber is competing with metered taxis.

	i) How many vehicles did you register with Uber/Bolt in SA, per year, in the period from 2012, to the end of June, 2023?	2 cars. 4 seaters.
Financial margins	a) On average, how many rides were requested by consumers (and were successfully completed), per day, at the time you registered your vehicle with Uber/Bolt?	Depended on the day. About 30 rides.
	b) How much was the revenue you generated, per week, at the time you started registering your vehicle with Uber/Bolt?	About R6000 per week.
	c) On average, how much was profit realised, per month, in the period from 2012, to the end of the financial year (22/23)?	About R10000 if I count all costs.
	d) On average, how much was the average price per kilometer travelled by an Uber/Bolt vehicle, at the time you registered your vehicle with Uber/Bolt?	I don't know.
	e) How much is the average price per kilometer travelled, by your Uber/Bolt vehicle now (in 2023)?	I don't know.
	f) How much was the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber (the employer), at the time you registered your vehicle with Uber/Bolt?	25% per ride.
	g) How much is the percentage-split (e.g., 70/30, 80/20 etc.), between the Uber/Bolt vehicle owner and Uber/Bolt (the employer), now (in 2023)?	25% per ride.
	h) Would you say you'd be making more/less money than you do now, if Uber/Bolt priced the rides per person, as opposed to pricing per ride? And why?	I don't think it would increase my money.

Operations	What's the average number of Uber/Bolt vehicles that would be available at any instance in the city, per day?	I don't know. In the region of hundreds in Johannesburg.
Demand vs supply performance	a) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand when Uber/Bolt started in 2012/2016?	The supply was less than now.
	b) Based on experience; how would you describe Uber's/Bolt's performance of supply of vehicles vs consumer demand currently (in 2023)?	The supply is more now.
	c) If there is a notable difference in performance of supply of vehicles vs consumer demand, what is your opinion on it?	The number of Uber cars is higher than when I joined.
	d) If the notable difference in performance of supply of vehicles vs consumer demand results in decrease of your profits, how do you think it can be solved?	Uber must contribute to other costs such as maintenance and data.