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## **SAFETY AND SECURITY OF WOMEN ON TRANSPORT: A CASE OF RIDE-HAILING SERVICES IN GAUTENG, SOUTH AFRICA**

**Summary.** Women, particularly in developing countries, rely heavily on public transport for their daily commute. This study explores the safety and security of women using ride-hailing services in Gauteng. Specifically, the study seeks to understand women's experiences using ride-hailing services, which might influence their mobility. This study employed a constructivist research philosophy, utilizing qualitative, semi-structured interviews to explore the experiences of women who use ride-hailing services. The study findings reveal several disturbing incidents reported by female passengers using ride-hailing services; however, it is important to note that not all drivers exhibit inappropriate behaviour. Some drivers make inappropriate remarks, while others exhibit rude behaviour. The study found that some drivers use longer routes, leading to higher fares, which can be seen as exploitation. The study also reports some incidents where ride-hailing drivers almost kidnapped some female passengers, indicating a severe safety concern. The study contributes to the ongoing discourse on gender and transport studies, providing empirical evidence on the experiences of women using ride-hailing services in Gauteng, South Africa.

**Keywords:** ride-hail, female passengers, safety, public transport, drivers, Gauteng

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## 1. INTRODUCTION

Public transport refers to all passenger transport services available to the general public, for example, buses, trains, trams and taxis. The combination of technology, consumer behaviour and market demand has allowed more transport options, such as ride-hailing services, to become a popular alternative for public transport in many cities [1-3]. Recently, ride-hailing services have become part of public transport in many countries [4], including South Africa. Ride-hailing refers to the "business activities of building a service platform based on internet technology, integrating supply and demand information, and using qualified vehicles and drivers to provide taxi-booking services" [5].

Ride-hailing services complement public transport and provide a wide range of transport options for city dwellers; as such, they have enhanced the mobility of urban commuters [5]. Nguyen-Phuoc [6] highlights that ride-hailing services play a vital role in public communities by servicing vulnerable transport users such as people with disabilities, women with children, the elderly and the sick. Giddy [7] found that some women felt safer using Uber compared to other modes of public transport, especially when traveling alone. Although the ride-hailing services industry plays a vital role in public transport and has brought more transport options to South Africa, safety concerns have been raised, and drivers and passengers have fallen victim to crime [8].

Men and women have different needs and often perceive transport differently [9]. Women often encounter personal safety issues and fall victim to crime on public transport [10]. Women play diverse and complex societal roles [11] and often function under constrained resources [10]. Research shows that women's mobility is shaped by gender roles [11,12], and their mobility patterns are different from men's [13]. Transport systems also affect how women move in a city and how they access its goods, services and opportunities. Women tend to use public transport more than men, especially in developing countries [10]; hence, public transport should be accessible to improve mobility and socio-economic inclusion. According to Uteng et al. [10], "women's safety in public space is regarded as an equity issue" that is often overlooked. One of the aspirations of the United Nations Sustainable Development Goals is that

*"by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons"*.

Research on safety and security in road transport is more concerned about motor vehicle safety [3], yet humans' safety and security in public transport are equally important. Acheampong [3] found that the experiences of safety and security in ride-hailing are not homogenous. While some people feel safe in ride-hailing, others may not feel safe. The safety and security of women in public transport is a global challenge affecting women's mobility and remains unresolved [10].

## 2. TRANSPORT IN THE CONTEXT OF SOUTH AFRICA

The South African transport system is influenced by apartheid city planning [7], which created a legacy of social exclusion and commuting inequality. Black people were displaced from the city, where work opportunities resulted in long commuting times, high transport costs and limited transport options. Although the public transport system in South Africa has evolved since the end of apartheid [14], it is well documented that the public transport system is not

effective and efficient [15,16]. Public transport modes in South Africa are fragmented, yet an integrated public transport system provides a service that is reliable, accessible, safe and convenient [17]. The public transport modes in South Africa have always been buses, trains, minibuses, and metered taxis. Access to different areas in South Africa can be problematic for many, partly due to limited transport options [14]. Ride-hailing services became visible and prevalent in South Africa around 2015 [15]. Some commercial ride-hailing companies in South Africa are inDriver, Uber and Bolt.

According to Statistics South Africa [18], women in South Africa use public transport more than men. Besides the poor standards of South Africa's public transport system, crime on public transport is another concern, especially among women [7]. The research done in Johannesburg, South Africa, by Giddy [7] shows that more women than men use Uber; however, the researcher did not find the reasons behind this finding. It is argued that "safe, accessible, and affordable public transport infrastructure is a fundamental prerequisite for the socio-economic advancement of the South African population" [16]. The assault cases reported in the media in South Africa mainly concern women [19-23].

Ride-hailing services offer convenience to transport users and increase transport options for many; however, numerous reports in South Africa have emerged on how passengers and drivers have become victims of crime [19-23]. Although many studies have been done on ride-hailing services, internationally and locally [3,4,24-28], in South Africa, there is little research considering the safety and security of female passengers using ride-hailing services. Gauteng province of South Africa has the highest population [18]; as such, the province was chosen for this study as it constitutes a higher number of users for ride-hailing services. Therefore, it is vital to understand the transport experiences of female passengers using ride-hailing services to improve their travel experiences. To improve the safety of female passengers on public transport, their transport experiences and encounters with ride-hailing services should be understood, addressed and integrated into transport planning and policies.

## **2.1. Objectives**

This study aims to understand the safety and security of passengers using ride-hailing services in Gauteng, which may affect their mobility. To attain the aim of this study, three secondary objectives were formulated.

1. To identify factors contributing to women's perceived safety and security while using ride-hailing services.
2. To establish forms of harassment and assault women encounter when using ride-hailing services.
3. To understand the attitudes of drivers towards female passengers using ride-hailing.

## **3. METHOD**

### **3.1. Study setting**

The study site is Gauteng province, an economic hub in South Africa. Gauteng province is the smallest province in South Africa yet has the largest population, with over 14 million people living there [29]. This study is of significant importance, as there have been concerns about

the safety of ride-hailing services globally and locally, particularly for women who use these services [3,19-21,30].

### **3.2. Study design**

This study employed a constructivist research philosophy, utilising qualitative semi-structured interviews to explore the experiences and challenges faced by women who utilise ride-hailing services, which may affect their mobility. As Velho [31] argues, qualitative studies can offer valuable insights into transport studies. Furthermore, this research focuses on the personal experiences of women, emphasising the need to comprehend their narratives on the safety and security of public transportation. A qualitative approach thus offers the necessary methodological richness to explore this phenomenon.

### **3.3. Study sampling**

The target population for the study was women living in the Gauteng province of South Africa between the age of 18 and 65 who use ride-hailing services. The sampling methods used to select the target population were snowball and convenience sampling. The study sample in this study was based on the principle of information power. Morse [32] suggests that researchers should focus on information power rather than sample size when designing qualitative studies. Information power refers to the amount and quality of information available within a sample to answer the research question [32]. Factors that contribute to information power include the specificity of the research question, the richness of the data, the quality of the data, and the analytical strategies used. Out of 88 responses collected, 71 valid responses were retained.

### **3.4. Data analysis**

To analyse data, inductive thematic analysis was used. Using an Excel spreadsheet, the researchers followed the procedure Braun and Clarke [33] developed to code and analyse data: (1) The researchers read through the data several times to understand the content. (2) The researchers started by identifying keywords and phrases relevant to the research question, known as initial codes. (3) The researchers organised the initial codes into related themes and developed a codebook, a set of categories or themes to organise the data. (4) The researchers applied the codebook to the data, assigning codes to relevant passages. (5) The researchers identified and organised the codes into themes, patterns or categories that recur across the data. (6) The researchers validated the results by comparing the themes to the data and seeking feedback from an expert in the field. (7) Once the analysis was complete, the researchers wrote a report describing the process and the findings, including a summary of the themes identified and the study's key findings.

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### 3.5. Ethical considerations

The College of Agriculture and Environmental Sciences Health Research Ethics Committee of the University of South Africa granted ethical approval for the study. The research fully adhered to all ethical requirements for conducting research per the University's policy on ethical clearance certification.

## 4. RESULTS

The study findings indicate that many women who participated use Bolt most frequently. Although some women use ride-hailing services for daily commuting, the majority of respondents do not. The participants reported that Bolt is more affordable compared to Uber. The four themes derived from the analysis are as follows: (1) safety and security concerns; (2) driver behaviour and attitudes; (3) service quality; and (4) ethical and legal issues.

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### Theme 1: Safety and security concerns

The study uncovered some instances of attempted kidnappings. While some respondents disclosed their familiarity with individuals who were kidnapped while using ride-hailing services, for others, this was a personal experience. Some of the encounters with the respondents are:

*"A Bolt driver once kidnapped me; fortunately, I managed to jump out while the vehicle was moving." (F1).*

One respondent reported that the same issue happened to her female neighbour, while another respondent gave an account of what happened to her neighbour's school-age child. This finding suggests that women and school-age children are vulnerable to ride-hail services.

*"it was a child of our neighbour. She was coming from school in a Bolt and was almost kidnapped, so she jumped off a moving car." (F60).*

Several women expressed their apprehension about riding alone with ride-hail drivers due to alarming reports they had read in newspapers and on social media. Being alone on a ride makes them feel vulnerable, and some women believe that anything could occur during the ride. Furthermore, the study found instances where drivers exhibited inappropriate behaviour towards female passengers, such as asking intrusive questions, causing discomfort, and sometimes even instilling fear. A respondent shared a personal experience of what happened to her on a ride.

*"... hence, I avoid using ride-hailing services. The driver was inappropriate. He touched my legs, which was very unprofessional. A few years ago, I also had a nasty experience when the driver saved my number and was harassing me." (F58).*

One of the respondents (F62) expressed her disappointment with a ride-hail driver who requested her contact information during a ride, despite her being a school-going Matric student in uniform. This encounter made her think that some ride-hail drivers may not have a strong sense of boundaries and moral principles. Moreover, the study found cases where female passengers had been robbed by ride-hail drivers or had left their belongings in the vehicle, which were not returned. These incidents highlight how unsafe and insecure women are on transport, impacting their mobility.

## **Theme 2: Driver behaviour and attitudes**

While some respondents never experienced negative attitudes and destructive behaviours from drivers, some female passengers said they had encountered a driver that was either “rude, moody, angry, or tribalistic and hated people from other African countries”. One of the respondents (F2) gave a detailed account of her personal experience; however, she acknowledged that most drivers she is matched with have a good attitude towards her.

*“I requested a ride to the mall and started monitoring the driver's movements on the map. I noticed that the driver was taking longer than expected and sent a message after about 10 minutes, after which the driver started moving. I have a disability and asked the driver to open the door, but the driver ignored me. I had to open the door myself and sit in the back seat, which was pushed too far back to stretch my legs. The driver did not respond to my greetings and seemed more concerned about the fare when I arrived where I was going. I gave him the amount shown on my phone, which was different from what he requested. When we arrived, the driver started talking to other people and did not help me out of the car. I had to push the door with my legs to get out, and the driver accused me of short changing him. He was angry at me. So we exchanged words. I reported the incident and requested not to be matched with that driver”.* (F2)

Other concerns raised during the interviews include using mobile phones by some drivers while operating their vehicles. Some respondents, F60 and F5, reported that drivers were observed using WhatsApp and chatting on the phone while driving, respectively, which nearly caused a collision. Another issue was drivers bringing strangers along during pickups, which made some respondents uncomfortable and prompted them to cancel the ride. In addition, some respondents expressed concern over drivers over-speeding while driving. The study also found that some drivers displayed elements of hate toward female passengers who could not speak local languages and from other African countries.

*My friend spoke in English, and the driver was angry that she did not understand the local language. And he started saying he hates foreigners. That made my friend so scared* (F60).

Behaviours and attitudes of some drivers toward female passengers show a lack of training in handling passengers. Negative attitudes towards female passengers can create unpleasant journey experiences.

## **Theme 3: Service quality**

Problems concerning service quality were related to changes of routes, making stops during a ride, a lack of customer care, and overcharging. The following are some discussions with female passengers who use ride-hail services.

*“The driver decided to change routes and take a longer route. He said the other route had bad roads. I ended up paying more money. I felt disrespected, cheated and robbed as I did not have much money.”* (F6)

Some drivers need better customer care. One of the respondents narrated her personal experience with one of the drivers:

*“I once had a driver that had to pick me up. He took ages to get to the location (by deliberately taking different routes). When he got there, he deliberately parked far from where I was and then expected me to walk to him despite my asking him to please come closer (I was carrying bags). So I entered the car and greeted him, and he ignored me. We drove to my drop off location, and when I thanked him, he ignored me.”* (F38)

Drivers prefer riders who pay in cash. They did not accept riders with discounts on their rides. Some drivers would cancel passengers in cases where a passenger had discounts on a ride, while others would shout at passengers.

#### **Theme 4: Ethical and legal issues**

The actions of some drivers go against acceptable moral and ethical principles. These actions involve harming passengers, breaking laws and deceiving passengers. The following are some discussions with interviewees:

*“... that is why I stopped using Bolt or Taxify. I ordered Bolt, the driver + car model on the app was not the same as the one that came through to pick me up, but the number plate was the same. So I did not board. I took pics of the car, and the driver reported. I felt like the trip would not end well.”* (F50).

Some drivers deceive passengers so that they can charge higher transportation fares.

*“...because sometimes the driver uses a long route and the money increased from the one when you requested one day, I ended up paying 600rand from 400rand.”* (F20).

The study found that respondents living in housing estates need help with drivers at drop-off points.

*“When we were about to get to that complex, the driver took another route leading to the other gate for that complex. So I told the driver that dropping me off on that side would be far from where I was going. All of a sudden, the driver burst into anger and started fuming. I did not like the tone, and I did not understand why he reacted like that. And immediately after he dropped me, I reported the matter to Bolt”.* (F60)

Another respondent had a similar experience,

*“One driver told me that he would not enter the housing complex where I stay because he had been denied entry at another complex with another client, and I was coming from shopping with a number of shopping bags and I stayed right at the back of the complex. I had to carry the heavy bags by myself.”* (F59)

The study also found that some drivers can drop off passengers at the wrong locations, which could risk female passengers' lives. Women's safety is compromised when drivers drop them off at the wrong locations, especially at night and in unfamiliar spaces.

*“the driver was impatient with his GPS, was struggling to locate our address and ended up dropping us off at night in the middle of nowhere; we were fortunate another Uber was able to pick us up and drop us at home”.* (F64)

## **5. DISCUSSION**

This study explores the safety and security of passengers using ride-hailing services in Gauteng, South Africa. Specifically, the study seeks to understand the experiences and challenges passengers, particularly women, encounter with ride-hailing services, which may

impact their mobility. Challenges experienced by women in commuting can discourage some from working, while others may resort to working near their residences [34]. The four themes derived from the data are safety and security concerns; driver behaviour and attitudes; service quality; and ethical and legal issues.

Research shows that despite the inherent positives of ride-hailing services, safety concerns for passengers are being raised [30]. The analysis shows that while some women feel safe using ride-hailing services, others do not, partly due to personal experiences, the experiences of friends and family, social media and newspaper reports. The study found different forms of harassment and assault encountered by women. Previous studies acknowledge that passenger safety in ride-hailing services is a matter of concern that remains a top priority [26,27]. Overall, perceived safety and security on ride-hail are based on a user's experience.

One of the challenges that passengers encounter in accessing transportation is the driver's attitude [35]. Similarly, the study findings reveal that some female passengers using ride-hail services encountered drivers with destructive behaviours and negative attitudes towards them. Shas and Hisashi [4] emphasised improving drivers' behaviour and attitudes, among other factors.

The study found that some drivers need to learn how to handle customers, which may lead to good service quality. Etuk et al. [1] highlight the importance of training drivers in handling passengers to improve the service quality and journey experiences of passengers. The issues of concern include overcharging users, deceiving users on routes, GPS usage and network, and dropping passengers at the wrong locations. The study findings are consistent with research done in Lahore, Pakistan, by Shah and Hisashi [4], who found that users of ride-hailing services experience significant problems, including "cancellation of rides by drivers, poor conditions of vehicles, poor GPS knowledge, overcharging and delay in arrivals".

### **5.1. Contribution of the study**

Safety and security issues encountered by passengers using ride-hailing services are underrepresented in South Africa. This study contributes to the literature on women's mobility in Gauteng province and other provinces. The findings apply to improving the safety and security of women and other transport users in Gauteng and other cities in developing countries. The study provides insights into the gendered dimensions of mobility and transport in Gauteng, South Africa. This information is essential in designing gender-sensitive transport policies and services that meet women's diverse needs. Moreover, the study contributes to the ongoing discourse on gender and transport studies, providing empirical evidence on the experiences of women using ride-hailing services in Gauteng, South Africa.

### **5.2. Limitations**

Ride-hailing service users who have had negative experiences with services may have been more likely to respond to the survey, leading to potential response bias. This study was based on the life experiences of the women who use ride-hail services; the researchers had limited control over the variables that may have influenced their perceptions and behaviours.



## 6. CONCLUSION

This study found that Bolt is the most frequently used ride-hailing company among women in the study, with affordability being the key reason. However, safety and security concerns were identified as the most significant issue, with some women experiencing kidnapping attempts, inappropriate behaviour from drivers, and being robbed by drivers. The study also identified issues related to driver behaviour and attitudes, including rudeness, use of mobile phones while driving, bringing strangers along during pickups, and over-speeding. Problems related to service quality were also highlighted, including changes in routes, making stops during a ride, a lack of customer care, and overcharging. These findings suggest that ride-hail companies need to improve safety and security measures, provide training to drivers on customer service, and ensure quality service provision to customers. Moreover, regulations and policies should be developed to address these issues, focusing on protecting women's safety and rights when using ride-hail services.

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