

Article

E-commerce at the last-mile: Media narratives on safety and working conditions of motorcycle delivery drivers

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Abstract: The rapid growth of e-commerce in South Africa has increased the demand for efficient last-mile delivery. Motorcycle delivery drivers play a crucial role in the last-mile delivery process to bridge the gap between retailers and consumers. However, these drivers face significant challenges that impact both logistical efficiency and their socio-economic well-being. This study critically analyzes media narratives on the safety and working conditions of motorcycle delivery drivers in the e-commerce sector in South Africa. The thematic analysis of newspaper articles identified recurring themes. This study reveals critical safety and labor vulnerabilities affecting motorcycle delivery drivers in South Africa's e-commerce sector. Key findings include heightened risks of violence, hijackings, and road accidents, exacerbated by inadequate infrastructure and safety gear. Coupled with low wages, job insecurity, and limited benefits, these conditions expose drivers to significant precarity. Policy interventions are urgently needed for driver safety and sustainable logistics. By integrating insights from multiple disciplines, this study offers a comprehensive understanding of the complex challenges within this rapidly growing sector.

Keywords: e-commerce; last-mile; motorcycle delivery drivers; logistics; safety; food delivery; grocery delivery

1. Introduction

Worldwide, the e-commerce industry has witnessed substantial growth in recent years, driven by technological advancement, the COVID-19 pandemic, and changing consumer behavior (Allen et al., 2021; Lin et al., 2024; Mofokeng, 2021). One notable area of this growth is the e-commerce revolution within the food and grocery delivery market, where online platforms have emerged as intermediaries between businesses and consumers (Allen et al., 2021; Lezcano et al., 2023). The global grocery delivery market is estimated to reach \$786.8 billion by 2024, while the global meal delivery market is projected to achieve \$436.5 billion in revenue (Statista, 2024).

As urban consumers increasingly use online services, platform delivery networks expand, heightening the importance of last-mile delivery (Li et al., 2020). Similarly, South Africa has experienced significant e-commerce growth, transforming businesses and consumer behavior (BusinessTech, 2024). Online sales in South Africa increased by 66% from 2019 to 2020, surpassing \$1.8 billion (International Trade Administration, 2024). In 2023, more than 76% of the South African population accessed the internet, reflecting widespread digital connectivity (Cowling, 2025). It is estimated that 21.52 million users will be registered by 2029 as e-commerce users (Cowling, 2025). Grocery and food delivery services in South Africa have also seen dramatic growth since the COVID-19 pandemic (Washinyira, 2024).

The rapid growth of the e-commerce industry in South Africa has led to an increased reliance on motorcycles for urban last-mile delivery. This growth has not only transformed consumer purchasing patterns but has also reshaped the structure of urban logistics, with delivery drivers becoming the critical link between digital platforms and end-users. Following the COVID-19 pandemic, the number of motorcycle delivery drivers on the road in South Africa, especially in large metropolitan municipalities has increased (Ward et al., 2023). Motorcycles play a crucial role in urban freight by enabling efficient and effective distribution of goods, including food, groceries, small parcels, and pharmaceutical drugs. Their fuel efficiency, affordability, and ability to maneuver through congested areas make motorcycles a popular choice for delivery services (Hsu et al., 2023; Kinyu et al., 2023; Shin et al., 2019). However, this increased reliance on motorcycles for last-mile delivery directly exposes drivers to a unique set of challenges within the e-commerce sector. While motorcycles enable fast and flexible deliveries in congested urban environments, the rise of this delivery model has introduced new and underexplored challenges for the drivers themselves.

Despite their importance in the urban freight industry, motorcycle delivery drivers face many challenges in serving the food and grocery market worldwide. They face a host of challenges that mirror and, in many cases, intensify broader concerns within the gig economy and informal labor sector. South African newspapers have documented a wide range of issues faced by delivery motorcycle drivers, providing a rich source of data for understanding the operational hazards and socio-economic pressures they encounter (BusinessTech, 2024; De Greef, 2021; Herald, 2024; Illidge, 2024). Delivery drivers face various safety and security challenges, including incidents of violence, robberies, and hijackings (BusinessTech, 2023; Herald, 2024; Mnguni, 2024). They also earn low wages and often work under poor conditions (IoL, 2023). The existing infrastructure for motorcycles, while advanced in some areas, remains inadequate in others, further compounding these difficulties.

With the continuous growth of e-commerce in South Africa, motorcyclists will continue to face significant challenges. The sector requires immediate attention to addressing the issues; overlooking challenges experienced within the delivery market will not only negatively affect drivers but also the safety of consumers and the entire business system. Therefore, this research aims to critically analyze media narratives on the safety and working conditions of motorcycle delivery drivers in the e-commerce sector in South Africa. To address the research aim, the following secondary objectives were formulated:

- 1) To identify operational challenges highlighted in media narratives regarding e-commerce logistics in South Africa.
- 2) To analyse safety and security concerns affecting delivery drivers.
- 3) To analyse the socio-economic challenges faced by motorcycle delivery drivers as reflected in the media narratives.

The existing literature provides a valuable foundation for this study by highlighting global trends in e-commerce expansion, the growing prominence of gig work, and the vulnerability of delivery drivers across different contexts (Allen et al., 2021; Hsu et al., 2023; Wang and Churchill, 2024). Cho et al. (2023) and Nguyen-Phuoc et al. (2023) highlight safety risks delivery drivers face internationally, while

research by Lord et al. (2023) exposes precarious working conditions common in platform-based delivery systems. The insights from literature inform the current study's focus on operational, safety, and socio-economic challenges, as they reveal patterns and gaps also reflected in South African media narratives. By situating South Africa within this global context, the study aims to deepen understanding of how these challenges appear in the local context and how media reporting brings attention to these issues.

2. Materials and methods

To analyze the challenges motorcycle delivery drivers faced in South Africa's e-commerce industry, the study employed a qualitative research method using a structured review of media narratives. Google News provided relevant sources. The online news websites that come out include BusinessTech, IOL, The Citizen, TimesLIVE, Sowetan, and GroundUp, covering the period from 2016 to 2024. The principles of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework guided the identification, selection, and analysis of newspaper articles on these challenges. **Figure 1** below shows the article search process. Key terms such as "motorcycle delivery drivers South Africa," "delivery driver crime," "e-commerce logistics challenges," "gig economy motorcycle drivers," and "food delivery safety" were used to search for news reports. Records identified from Google News amounted to 511 articles.

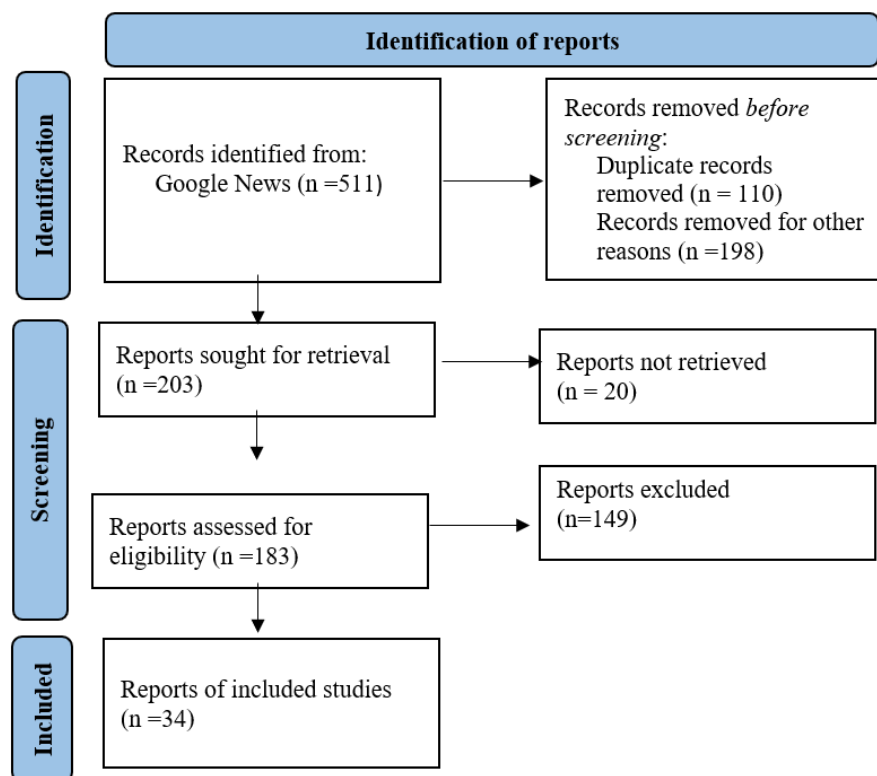


Figure 1. Article search process.

Source: (Page et al., 2021).

A manual thematic analysis was conducted using the following six-step framework by Braun and Clarke (2006) to ensure a rigorous analysis. Step 1 required the researchers to thoroughly read all the articles to understand the content and context. This step was essential for understanding the content and context of the articles. Notes and preliminary impressions were recorded to aid in subsequent steps. Step 2 required the researcher to generate initial codes. The codes represented significant features of data such as safety risks, economic challenges, and criminal activities. Step 3 was about identifying patterns and broader themes that captured important aspects of data. Themes were not merely summaries of the codes but provided a deeper understanding of the underlying issues. Initial themes were developed by collating codes into potential themes and gathering all data relevant to each theme.

Step 4 was about theme reviewing and refinement to ensure themes accurately reflected the data. Firstly, all extracts for each theme were read to determine if they formed a coherent pattern. Secondly, at the entire data set level, the validity of individual themes about the data set was considered. Themes were refined, split, combined, or discarded accordingly. Researchers revisited the data to check evidence that supported or challenged their interpretations, ensuring the themes were comprehensive and reflective of the data. Step 5 was about defining and naming themes. Researchers articulated the essence of each theme and determined what aspect of the data it captured. Clear definitions were provided to distinguish each theme, and compelling names were chosen that conveyed the themes' essence. This process involved writing detailed analyses for each theme, clarifying their scope and content. Lastly, Step 6 involved a detailed write-up of the thematic analysis, presenting each theme with supporting data extracts that exemplified the themes. The write-up aimed to provide a coherent narrative that accurately represented the data and the researchers' interpretations.

3. Results and discussion

At the end of the news reports search, a total number of 34 reports satisfied the inclusion criteria. The IOL has the highest coverage of 11 articles, frequently reporting on hijackings, crashes, and thefts involving delivery motorcycles. The Citizen has a coverage of seven articles covering a wide range of crime-related incidents, particularly hijackings and safety concerns for drivers. This is followed by The South Africa with four articles focusing on crashes, smuggling of motorcycles, and working conditions for drivers. The TimesLIVE and GroundUp each have two articles, while the rest of the publishers have only one article. The most frequently reported issue affecting motorcycle delivery drivers in South Africa is hijackings. Delivery motorcycle drivers in South Africa have certain common characteristics; for example, the industry is predominantly male and young, with many drivers being migrant workers, particularly from neighboring countries like Zimbabwe, Mozambique, Malawi, and other African countries. The data revealed four main themes: safety and security concerns; operational challenges; economic and social challenges of motorcyclists; and criminal activities. **Table 1** is an overview of articles included in the analysis.

Table 1. An overview of included reports.

Date	Article	Publisher	Issues
22 May 2024	Delivery bikes wreak havoc on South African roads	MyBroadband	Training, Immigrant workers
18 April 2024	Biker fears for his life!	Daily Sun	Hijacking, assault
20 April 2024	Woman shot in Moreleta Park during food delivery	Citizen	Shooting, Robbery
27 March 2024	Three arrested for truck, motorbike, hijackings	Herald Live	Hijacking
09 January 2024	Grocery delivery man arrested in Sandton for using stolen motorbike	IOL	Possession of stolen property
03 November 2023	Hijackers have a new target in South Africa	BusinessTech	Hijacking
20 October 2023	Nervous food delivery biker's 'dagga delivery' goes awry in Cape Town	TimesLIVE	Dealing in drugs
13 October 2023	Retail group working with police to curb delivery bikes hijackings	Citizen	Hijacking
09 October 2023	Boksburg police probe possible 'bike hijacking' syndicate	Citizen	Hijacking
03 October 2023	Delivery biker dies in crash on his first day on the job	IOL	Crash
18 September 2023	WATCH: Boksburg's increasing crime trends, hijacking attract 'Operation Shanela'	Citizen	Hijacking
07 September 2023	Elsburg CPF warns scooter drivers of hijackings	Citizen	Hijacking
03 August 2023	Motorbikes stolen in Tshwane recovered in Ekurhuleni, stashed in vehicle ferrying goods to Mozambique	IOL	Theft of bikes
01 August 2023	SAD: Checkers Sixty60 motorcyclist killed in crash	The South African	Crash
14 July 2023	The precarious lives of supermarket grocery delivery drivers	GroundUp	Lives of drivers
19 May 2023	Eight foreign Sixty60 drivers arrested	News24	Hijacking
10 May 2023	Hijackers come up with novel way to steal bike in Akasia	Citizen	Hijacking
20 March 2023	Not so fast: Food delivery biker in high-speed chase with cops, arrested for fake Zim licence in Ekurhuleni	IOL	Fake licence
21 February 2023	Stolen delivery scooter leads City cops to possible syndicate in Steenberg	IOL	Theft
20 February 2023	Delivery motorcycles stolen in Cape Town 'destined for resale in East Africa'	TimesLIVE	Smuggling of bikers
29 January 2023	The dark side of feeding SA's growing appetite for e-commerce	IOL	Wages of drivers
06 January 2023	Food delivery suffers as JMPD impounds bikes for illegal parking	The South African	Bike Parking
05 January 2023	Not so fast: JMPD pounces on delivery motorbikes and impounds 10 in Sandton Security companies warn of increase in attacks on food delivery services	IOL	Bike parking
17 November 2022	Crafty criminals are now targeting homeowners when receiving packages: Here's how to protect yourself	IOL	Risk of customers
24 September 2022	Motorcycle driver killed in accident on way to deliver food	News24	Collision
26 July 2022	Plastic-wrapped motorbikes recovered before crossing the border	The South African	Smuggling of bikes

Table 1. (Continued).

Date	Article	Publisher	Issues
18 June 2022	Suspects caught red-handed stripping hijacked motorcycles	The South African	Stripping of motorcycle parts
14 March 2022	Five arrested in Mpumalanga for attempting to smuggle stolen motorbikes into Mozambique	IOL	Smuggling of bikers
27 January 2022	Uber Eats scam: More users report stolen deliveries... by drivers	Citizen	Stolen food
13 September 2021	Parts of several motorbikes stolen in Gauteng and NorthWest found in Mpumalanga	IOL	Theft of bikes
06 June 2021	'We live in fear,' say ecommerce couriers on increased robberies	ITweb	Hijacking
02 June 2021	Immigrant food couriers risk death on South African roads	GroundUp	Fatalities
14 April 2021	Risks for South Africa's food couriers surge during the pandemic	Context	Hijacking, Accidents, Work condition
15 March 2016	Pizza delivery race attack: DA lays charges	IOL	Assault

Theme 1: Safety and security concerns.

Safety and security risks are among the most significant challenges faced by delivery drivers. Media reports indicate a rising trend in hijackings and robberies, with criminals targeting delivery drivers for their motorcycles, cash, and goods (BusinessTech, 2023; Malinga, 2021; Mkhabela, 2023; Mnguni, 2024). In some cases, drivers have been attacked or fatally injured while performing deliveries (Chaane, 2024). Violent crimes against drivers extend beyond hijackings, with reports of physical assaults and targeted attacks. It is reported that criminals attacking drivers use tactical ways to make the drivers fall off the motorcycle (Diergaardt, 2023). For example, some drivers have been struck with stones while riding, causing them to crash (Herald, 2024). The increasing frequency of these attacks has forced many delivery drivers to operate in constant fear, impacting their overall job performance and well-being.

Traffic accidents are another major concern. The high-pressure nature of delivery work often leads to reckless driving behaviors, including speeding and running red lights, to meet strict delivery deadlines. Many drivers have been involved in serious crashes, some of which have been fatal (Naidoo, 2023). For example, in 2022, a motorcycle had a collision with a minibus taxi, and the motorcyclist died on the scene in the Eastern Cape province (News24, 2022). Furthermore, poorly maintained roads and inadequate street lighting in certain areas contribute to the high rate of motorcycle accidents (De Greef, 2019). These safety risks highlight the urgent need for policy interventions to protect delivery drivers.

Theme 2: Operational challenges.

A major issue highlighted in media reports regarding operations is the lack of structured training programs. Many drivers, particularly migrants, operate motorcycles without driver's licenses, having learned to ride through informal methods such as peer training (De Greef, 2019; Illidge, 2024). This lack of proper training increases the likelihood of accidents and unsafe driving practices. Driving without licenses and necessary training endangers not only motorcyclists but also other road users. In 2023, eight illegal foreign nationals working for Checkers Sixty60 in Western Cape were arrested for working without work permits (Roussouw, 2023).

This issue is widespread in South Africa; drivers are arrested across different provinces for working without proper documentation (Maromo, 2023).

Another key challenge is the inadequate parking infrastructure to support motorcycle delivery operations. Many urban areas lack designated parking spaces for motorcycles, leading to conflicts with law enforcement over illegal parking (Maromo, 2023). In addition, adverse weather conditions, such as heavy rainfall, pose significant hazards, with many drivers continuing to work under unsafe conditions due to financial pressures (De Greef, 2019).

The poor condition of delivery motorcycles is also a concern. Many riders use rented or second-hand motorcycles with faulty brakes, worn-out tires, and missing safety equipment. Inadequate maintenance and a lack of proper protective gear increase the risk of accidents and injuries (De Greef, 2019). These operational deficiencies and inefficiencies not only compromise driver safety but also impact service delivery.

Theme 3: Socio-economic challenges.

Beyond operational and safety issues, motorcycle delivery drivers face significant socio-economic challenges that affect their livelihoods and overall well-being. One of the most pressing issues is low wages. Many drivers earn on a per-delivery basis, with their income often failing to cover basic living expenses (Wanneburg, 2023; Washinyira, 2023). To maximize earnings, some drivers work excessively long hours, leading to fatigue and burnout.

The study found that job insecurity is another significant concern, as most delivery drivers are classified as independent contractors rather than formal employees (Washinyira, 2023). This classification excludes them from essential benefits such as health insurance, worker compensation, and retirement savings (Harrisberg and Asher-Schapiro, 2021). In the event of an accident or injury, many drivers lack the financial means to access medical care, with some avoiding hospitals due to their undocumented status (De Greef, 2019). The lack of compensation and support for injured delivery drivers is concerning. Although some platform companies claim to cover drivers for injuries, death, and disability, many drivers are not aware that they are covered (De Greef, 2019; Harrisberg and Asher-Schapiro, 2021). For example, a Malawian driver who was injured while working could not get compensation from a certain platform company as the company claimed that the driver was in the hospital for less than 48 hours (Harrisberg and Ashe-Schapiro, 2021). The Malawian driver was left with pain in his foot, unable to work for a month, and continued to work for the same company when he recovered.

The study found that undocumented drivers may avoid seeking medical attention after accidents to avoid detection by authorities (De Greef, 2019). These drivers do not report incidents due to undocumented status. Drivers also believe that platform companies only care about the orders whenever an incident happens. The first thing a platform asks when a driver is involved in an accident is whether the “food is okay”. However, drivers have formed WhatsApp groups to support each other in case of accidents and roadside assistance (Harrisberg and Asher-Schapiro, 2021). The study also found that some delivery drivers face hostility from both customers and employers, limiting their access to better job opportunities and social networks. Reports also indicate cases of verbal abuse and stigmatization of delivery workers

(Bernado, 2016), which can make it difficult for delivery workers to perform their duties effectively.

Theme 4: Criminal activities.

Criminal activities in the delivery industry include the use of stolen motorbikes by delivery drivers, the stripping of stolen motorcycles for parts, and the involvement of drivers in criminal acts. Some delivery drivers engage in delivering illegal substances. In Cape Town, one of the food delivery drivers was caught with illegal substances and arrested by the law enforcement (TimesLIVE, 2023a). Although such incidents are rare, any involvement in illegal activities is concerning. The study reveals that while some motorcycles are stolen from the delivery motorcyclists, other drivers may buy and drive the same stolen motorcycle (Maromo, 2024; Mthupha, 2023a). There seems to be a closed-loop market for stolen property that could involve organized crime. While solving motorcycle theft within the delivery industry seems futile, there are several compelling reasons to solve these cases. For example, firstly, stolen motorcycles used for deliveries can compromise public safety. Secondly, stolen motorcycles can create a financial burden on insurance providers and legitimate delivery drivers. Lastly, tackling this issue can help dismantle organized crime networks that thrive on the resale of stolen motorcycles and parts.

Reports indicate that Mozambique is a popular destination for motorcycles stolen from South Africa (Maromo, 2021, 2022; Naile, 2022a, 2022b). In 2022, five men were arrested in Mpumalanga for attempting to smuggle stolen motorcycles into Mozambique (Maromo, 2022). Vehicle tracking companies in South Africa are helping law enforcement with information on stolen motorcycles. In 2023, one of the vehicle tracking companies in Cape Town managed to track and lead law enforcement to a site where there were stolen motorcycles and parts (TimesLIVE, 2023b). While Mozambique is a popular destination, stolen motorcycles are also smuggled to other parts of East Africa, including Malawi (Ntseku, 2023; TimesLIVE, 2023b). Some stolen motorcycles are stripped for parts and transported in boxes to Mozambique. Smuggling of stolen motorcycles or their parts to neighboring countries suggests a well-established criminal syndicate.

Food theft by drivers, though not always seen as a serious crime, results in financial losses for businesses and customer dissatisfaction. Customers expect reliable and secure service. While some drivers confirmed that they had eaten orders instead of delivering (De Greef, 2019), some were caught on camera eating customers' food (Subramoney, 2022). Food theft by delivery drivers is a complex issue that could be rooted in hunger and economic hardship.

Despite the convenience associated with delivery services, users of delivery services face various challenges that can impact their experiences and lives. For example, violent crimes targeting customers can negatively affect their lives and in some cases losses of lives were reported. Mosia (2022) reports an increase in crime targeting homeowners during deliveries. Recently, in Pretoria, a woman was shot in the stomach when she stepped out of her house to collect her delivery of food that was ordered online (Chaane, 2024). Violent crimes targeting customers highlight the dangers faced by users of delivery services.

4. Discussion

The discussion of findings is structured according to the research objectives of the study. The first objective of this study was to identify operational challenges highlighted in media narratives regarding e-commerce logistics in South Africa. The findings indicate that motorcycle delivery drivers in South Africa face substantial operational challenges, particularly regarding lack of training, parking space, lack of work equipment, and poor working conditions. Lack of training of delivery drivers is not a problem found only in developing countries but also in developed countries like Australia (Allen et al., 2021). Wang and Churchill (2024) think that the training of delivery drivers and safety measures platform companies deployed are ineffective.

The inadequacy of equipment or infrastructure, such as the absence of parking spaces, directly impacts the ability of delivery drivers to satisfy their safety needs. In South Africa, the rapid growth of the on-demand delivery industry appears to have outpaced the development of the necessary infrastructure critical to the sustenance of the industry. There are no policies or legislative frameworks that directly support motorcycle infrastructure. For example, the National Road Traffic Act (No. 93 of 1996) governs all road users, including motorcyclists, but does not explicitly mandate the development of specific motorcycle infrastructure. It provides the legal basis for the operation and regulation of motorcycles on roads. There is also little literature that explicitly covers motorcycle infrastructure in South Africa; however, there is some literature on motorcycle infrastructure in the context of Africa (African Development Bank, 2016; FIA Foundation, 2020).

The second objective of this study is to analyze safety and security concerns affecting delivery drivers. Safety remains a significant concern for motorcycle delivery drivers. The study found that hijackings, robberies, and accidents are prevalent threats. Globally, the vulnerability of motorcycle delivery drivers to violent crime has been well-documented (Cho et al., 2023; Nguyen-Phuoc et al., 2023). Research from South Korea (Cho et al., 2023) and Vietnam (Nguyen-Phuoc et al., 2023) supports the idea that delivery motorcyclists operate in environments where they are frequently at risk of being targeted by criminals, particularly at night or in high-crime areas.

The constant hijackings of motorcycles disrupt their sense of safety and security, making it difficult for them to focus on higher-level needs. Motorcycle hijacking or theft is a global issue affecting the delivery industry, with stolen motorcycles and parts being smuggled to neighboring countries. The problem is also felt in the UK, Australia, Italy, and the USA (Geldenuys, 2024). Similarly, in the Philippines, cases of motorcycle theft skyrocketed (Pachica et al., 2017). This finding is consistent with the observations of Geldenuys, who highlights the heightened motorcycle theft in South Africa. Motorcycle theft statistics are grouped under the broader category of vehicle theft, making it impossible to determine whether the stolen motorcycles were used for delivery purposes or not. The study also found that the stolen motorcycles and dismantled bike parts have a market in neighboring countries, especially Mozambique.

Traffic accidents further exacerbate safety risks. Similar to the findings of this study, Ward et al. (2023) report that motorcycle crashes among delivery drivers in

South Africa cost the healthcare system millions due to frequent injuries and fatalities. Ward et al. (2023) argue that the injuries sustained had cost more than three million Rands and most of the drivers do not have health cover. In Tembisa Provincial Tertiary Hospital in South Africa, a significant number of delivery motorcyclists were treated for injuries over a period of seven months (Ward et al., 2023).

Studies from other countries also confirm high accident rates among delivery drivers, often due to risky driving behaviors such as speeding and running red lights (Christie and Ward, 2019; Nguyen et al., 2023). In South Korea, at least 3000 delivery drivers were involved in accidents in 2020, and the number of accidents had increased by 30% compared to accidents that happened in 2019 (Cho et al., 2023). Similarly, in Chile, several motorcyclists lost their lives on the road, and many were migrant workers. However, it appears that the measures to ensure the road safety of motorcycle drivers are insufficient. Platform companies also seem to prioritize efficiency over the safety of the drivers, leaving them exposed to hazardous conditions. Safety needs are severely affected, as drivers constantly operate under dangerous conditions. This compromises their overall well-being and reduces their ability to move beyond basic survival concerns.

The third objective was to analyze the socio-economic challenges faced by motorcycle delivery drivers as reflected in the media narratives. The study highlights significant socio-economic challenges faced by motorcycle delivery drivers related to low wages, job insecurity, and lack of worker protections. These findings are consistent with previous research on gig economy workers (Lord et al., 2023; Wang and Churchill, 2024). In South Africa, most delivery drivers work as independent contractors, meaning they are not entitled to basic labor rights such as healthcare, insurance, or minimum wage protections (Harrisberg and Asher-Schapiro, 2021).

This precarious work arrangement is not unique to South Africa. Previous research shows that migrant delivery workers are often exploited due to their lack of legal protections (Anderson et al., 2024; Bonhomme and Muldoon, 2024). Many delivery drivers in South Africa work long hours yet struggle to make a sustainable living (Wanneburg, 2023), which is similar to other studies on labor conditions in the gig economy (Popan, 2021; Zhou, 2018). The study also found that migrant workers, in particular, experience discrimination and isolation, limiting their access to better job opportunities. Similar findings in Chile and Indonesia show that migrant platform workers face systemic barriers that affect their economic mobility (Bonhomme and Muldoon, 2024; Usman et al., 2024).

5. Conclusion

The growth of the e-commerce industry in South Africa emphasizes the pivotal role of motorcycle delivery drivers in facilitating last-mile deliveries. This study found that most of the motorcycle delivery drivers in South Africa are young migrant workers. Motorcycle delivery drivers face challenges related to operational inefficiencies, safety risks, and socio-economic insecurity. The challenges faced also include exposure to violent crime, poor infrastructure, lack of safety equipment, and precarious working conditions. These challenges not only undermine the well-being and livelihoods of drivers but also threaten the sustainability of last-mile logistics and

the broader e-commerce industry. Addressing these issues is essential for ensuring safer working conditions, improving delivery reliability, and supporting the long-term growth of South Africa's digital economy.

The government could choose to be indifferent to the plight of the delivery industry workers; however, the impact of the current situation extends far beyond the drivers themselves. Injured motorcycle drivers enter the healthcare system, creating a financial burden on taxpayers. Moreover, when accidents occur, they do not only affect the drivers but also other road users, including the general public, illustrating the far-reaching consequences of neglecting this issue. Businesses also suffer financial losses when the drivers do not successfully deliver orders, and insurance companies are affected by high rates of accidents and hijackings, leading to increased insurance premiums. Stolen motorcycles can also be used for other criminal activities, such as house robberies.

Based on the findings on the operational challenges faced by motorcycle delivery drivers in South Africa, policymakers are recommended the following. Policymakers need to develop and implement specific legislative frameworks that mandate the creation of motorcycle-specific infrastructure, including dedicated parking spaces and safe loading/unloading zones. Delivery motorcycles are a vital component of urban logistics and labor markets and should be formally integrated into the national policy framework. The National Road Traffic Act should be revised to include provisions for motorcycle safety and infrastructure development. Platform companies have a mandate to invest in comprehensive training programs for all delivery drivers, focusing on safety, navigation, and customer service. In addition, platform companies need to provide drivers with necessary safety equipment, including helmets, reflective gear, and protective clothing. Based on the finding on safety and security concerns affecting delivery drivers, law enforcement presence in high-crime areas to deter hijackings and robberies should be increased. Stricter penalties for motorcycle theft and related crimes could also be implemented to reduce motorcycle theft. Platform companies could also implement security measures, such as GPS tracking and panic buttons, on delivery motorcycles.

The findings of this study speak to broader policy debates around the regulation of gig work, the informal economy, and inclusive urban development. Addressing the plight of delivery drivers can serve as a model for formalizing informal labor while still supporting the flexibility that digital platforms offer. Furthermore, the study has implications for how cities design mobility systems that are safe, efficient, and equitable for all users. This does not only apply to private vehicles and public transport but also to the growing base of commercial two-wheelers. There is also a need for greater public-private collaboration between platform companies, government agencies, insurance providers, and civil society to design innovative, sustainable solutions for last-mile logistics.

However, there is no denying the fact that this study is not an end in itself. While it has sought to contribute a footnote to the discourse on the subject of delivery and set the tone for succeeding analyses on the complex field of e-commerce more broadly, it has its own limitations. These include the use of newspaper articles as the primary data source, which may be subject to bias and may not fully represent the experiences of all delivery motorcyclists. The coverage of newspaper articles was limited to major

cities like Johannesburg, Pretoria, and Cape Town, potentially overlooking the conditions of delivery drivers in smaller cities and rural areas. To address these limitations, future research could incorporate qualitative methods such as interviews or focus groups with delivery drivers to capture a broader range of experiences and perspectives. Surveys can also be administered to a larger sample of drivers across various locations to gather quantitative data. Future research could also expand geographic scope and include delivery drivers from smaller cities and rural areas to provide a more holistic view of the issues faced by drivers nationwide.

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