

PLATFORM POLITICS AND SILICON SAVANNAHS

The rise of on-demand
logistics in Cape Town

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OLWORTHS



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Cover image

Motorcycles in Main Road, Rondebosch (©Alicia Fortuin, 2022)

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Abbreviations

API	Application Programming Interface
B2B	Business-to-Business
B2C	Business-to-Customer
C2B	Customer-to-Business
C2C	Customer-to-Customer
DCDT	Department of Communications and Digital Technologies
DEDAT	Department of Economic Development and Tourism
ETA	estimated time of arrival
ICASA	Independent Communications Authority of South Africa
ICT	information and communications technology
OIPMI	Online Intermediation Platforms Market Inquiry
RIA	Research ICT Africa
SaaS	Software as a Service
SEAD	Strategic Economic Accelerators and Drivers
WCBSF	Western Cape Broadband Strategic Framework

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1.

Introduction

Cape Town has been coined the startup capital of the continent, the most connected city, and the silicon Cape of Africa (Genome, 2017, cited in Pollio, 2020). In recent years, and in part due to the COVID-19 pandemic, more and more startups have become interested in last-mile delivery and on-demand services. Increasingly, there has been an interest in delivery technologies, their accompanying business models, and the use of motorcycles and riders to complete these tasks.

This report complements research conducted on platform-enabled two-wheel logistics entitled *Platform Politics and Silicon Savannahs: The rise of on-demand logistics and mobility in Nairobi and Kigali* (Sitas et al, 2022). In the same way, in this report, we share valuable insights on how the use of motorcycles reconfigures urban mobility, governance and economies due to the introduction of platform-based systems and the rise in platformisation of on-demand logistics. It is important to note that, unlike Nairobi and Kigali, in Cape Town motorcycles are not used for commuter movement but entirely for food delivery, grocery delivery, and courier services. Another important insight is that Cape Town has not had the kind of explosive transition to motorcycles as have Nairobi and Kigali. Nonetheless, due to the proliferation of on-demand logistics and last-mile delivery platforms across African cities, and certainly in Cape Town, more and more motorcycles can be seen on the city streets than ever before.

'Last mile' refers to a set of activities at the end of the supply chain that brings the service or product to the end consumer, customer or individual. It is the most exposed customer-facing part in the supply chain journey and considered an extremely important and strategic part of a successful business. It also refers to the hyperlocal (up to 10 km) radius in which deliveries take place. The last-mile delivery and the delivery person are in many instances the only way the customer interfaces physically with a company, and is on the priority list for many enterprises including global companies like Amazon and Uber Eats; South African e-commerce giant, Takealot; shopping retailers like Checkers Sixty60; and other smaller e-commerce businesses.

Despite its visible presence and the use of last-mile apps by many demographic groups, there is limited academic research on the interface of motorcycles and the platform economy in African cities generally, and Cape Town specifically. Several studies in South Africa have sought to explore this, but often (and very usefully) from the perspective of the riders and not the entire ecosystem (Webster et al, 2021). In response, this report attempts to fill these gaps by looking at platforms across Cape Town, paying attention to the consequences for urban mobility, governance and economies, particularly given the lack of regulation at the intersection of motorcycle on-demand logistics and the platform economy.

To conduct this research, we interviewed actors across the ecosystem, visited their warehouses, and used other ethnographic techniques such as walking the city and taking photographs. We also conducted literature reviews, followed newspaper headlines, and mined the Internet (Seaver, 2017). We downloaded the apps onto our mobile phones to experience the user interface and workings of the apps. These techniques proved invaluable in conducting research on digital platforms in instances where some platforms are more visible than others.



Figure 1: Motorcycles on Dreyer Street, Claremont (© Alicia Fortuin, 2023)

2.

Contextualising the rise of on-demand services in Cape Town

This section provides the necessary context to understand the platform mobility offerings in Cape Town. It situates the rise of digital platforms for urban mobility at the national, provincial, and local scale. We show how the rise of platforms is linked to investment and policies made at every level of government.

The South African ICT landscape

Since the 1990s, South Africa has undergone rounds of reforms in the information and communications technology (ICT) sector. These reforms have sought to drive investment in ICT infrastructure, open up the market, and address challenges related to access. Despite a persistent digital divide, South Africa has experienced a rapid expansion of provision and access to digital services. With a population of 61 million and an average age of only 27.6, there is a large and growing market for ICT-related offerings. Overall, the ICT sector is said to contribute close to 6% of South Africa's GDP, recording ZAR 243.6 billion (USD 13.6 billion) revenue over a seven-year period up to 2021 (ICASA, 2022).

Smartphone penetration in South Africa acts as a major driver of Internet access and use in the country. As of 2022, 79.12% of South Africans access the Internet through their mobile devices. Smartphones, with their ability to connect to platforms, are an increasingly important part of South Africa's economy, particularly in urban centres. There are four mobile cellular providers – Vodacom, MTN, Cell C and Telkom Mobile – with Telkom Mobile run by Telkom, South Africa's majority state-owned wireline and wireless telecommunications provider. Wireless mobile broadband is the predominant form of broadband access in South Africa. Data reported by ICASA highlight that the poor access the Internet through their cell phones and nearly 80% of these Internet users do not have fibre at home or other data subscriptions. Consequently, high data and smartphone costs remain among the major reasons for slow digital inclusion in the country, as first highlighted by Gillwald et al., 2018. Comparatively, Egypt has the second highest number of Internet users on the continent with over 75 million users and Nigeria the highest with 109 million. Another interesting statistic is the speed of Internet in South Africa. With 28.62 megabits per second, South Africa is second to Rwanda, which has 52.17 megabits. These speeds are significantly higher than the average speed on the continent at 8 megabits per second. Nonetheless, access and affordability remain key barriers to digital inclusion in South Africa and the continent.

Cape Town as a leading ICT startup hub

Cape Town is South Africa's oldest city and its history of Dutch and British colonial settlement, coupled with apartheid, is particularly embedded in its spatial form compared to the country's other major cities. Arguably, this colonial legacy contributes to its attraction for tech development and investment. It is the country's second largest city and its legislative capital. Cape Town has a population of approximately 4.1 million people, with 61% under the age of 35 (Stats SA, 2022). It is considered a middle-income city, but is also one of the most unequal and unsafe cities in the world (Turok et al., 2021; Brown-Luthango et al., 2017).

Cape Town is often seen as a tale of two cities: fabulous wealth, high-end consumption, and natural beauty along the Atlantic Seaboard, while on the Cape Flats and township areas several kilometres from the central business district, high levels of poverty, unemployment, and a lack of services plague communities and the citizens who reside there. More recently, scholars suggest the existence of a mixed city, where these extremes become less apparent and new typologies of space and space manifest (Pieterse, et al., 2019; Migozzi, 2021). Despite this reality, and perhaps in part due to it, the City of Cape Town has aspirations of being a world-class city that is well run and seamlessly connected (Macdonald, 2012).

Local government has considerable control over key aspects of urban investment and the City of Cape Town has ever-evolving branding strategies to promote itself as a creative city, a tech city, and compete nationally with other major cities in South Africa for investment and access to finance. It has been called the startup capital of Africa, with over 60% of South African startups situated in Cape Town (Pollio, 2019). It is home to 30 venture capital firms, including Naspers – one of the top tech investors in the world (Chargui, 2022). Cape Town is one the most well-connected cities on the continent, with its digital economy and broadband access among the elemental factors underpinning the future growth of the Western Cape province in which the city is situated.

The rise of platformed motorcycles in Cape Town

The platformisation of motorcycle on-demand logistics started in Cape Town through companies like Mr D and Uber Eats. Although primarily for fast-food delivery, the COVID-19 pandemic and resultant lockdown regulations saw an increase in food delivery and grocery delivery across South African cities and Cape Town in particular. Increased online consumer behaviour stimulated by smartphone penetration, along with increased access to Wi-Fi and the 'convenience economy', has led to a surge in on-demand motorcycle delivery services.

Well-established companies like Shoprite Holdings Ltd have added motorcycle delivery to its suite of services to customers to diversify its offerings through the Checkers Sixty60 app. In 2021, Checkers Sixty60 was among the five most downloaded apps, with over 111,000 downloads in Google Play and 15,000 downloads in IOS apps in the shopping category.¹ Due to their success, other

¹ Airnow (August 2, 2021). Most popular iOS apps in the shopping category in South Africa in July 2021, by number of downloads (in 1,000s). In Statista. Retrieved May 19, 2023, from <https://www.statista.com/statistics/1190366/popular-shopping-apps-for-iphone-in-south-africa/>

South African-owned food retail supermarkets, such as Pick n Pay and Woolworths, now also offer delivery services to their customer base. Pargo, however, one of the leading on-demand startups in Cape Town, opted for a different model by having customers go to pick-up points across the city. Amongst myriad experimental business models for addressing the last-mile challenge, motorcycle delivery has boomed in the city.

As much as there are opportunities for expansion in last-mile delivery, such as increased market share, there are also high risks, such as small profit margins in an expensive part of the supply chain. This was echoed across many of the interviews conducted in the ecosystem of fintech companies, delivery platforms, and potential funders. Last-mile delivery sits outside the network effects created by economies of scale. It is also the most expensive part of the supply chain, especially for businesses that are unable to leverage economies of scale. The delivery of parcels from a warehouse to urban locations can be unpredictable due to sprawl, long distances between locations, poor road infrastructure, poor addressing, and safety issues typical of African cities. Goods must be delivered and payments settled in the shortest amount of time. These factors present challenges to last-mile on-demand delivery services. According to our informants there are only small margins to be made from last-mile deliveries, which is interesting given the proliferation of last-mile delivery services using motorcycles that have been added to existing business models. Despite this, we see a rise in platforms and innovation at various parts of the value chain.

Governance of the platformed motorcycle space in Cape Town

The platform landscape and growth of the sector has been fast moving, with many different things happening over a short time, which has resulted in government actors, policy makers and regulators having to play catch-up. The sector is confronted with regulation and policy aimed at the ICT/e-commerce space and the transport space.

South Africa's national government plays a central role in ICT regulation, which has direct implications for platformed mobility. The Department of Communications and Digital Technologies (DCDT) is a key player. Following the May 2019 elections, the Minister of Communications announced the establishment of this department with the mandate to lead South Africa's digital transformation and achieve digital inclusion by creating an enabling policy and regulatory environment. The Independent Communications Authority of South Africa (ICASA) also contributes to the sector. Established in 2000 by the ICASA Act, it is the regulator of telecommunications, broadcasting and postal services in South Africa, acting in the public interest. The Competition Commission, empowered by the Competition Act, is responsible for upholding fair competition among businesses and launched an Online Intermediation Platforms Market Inquiry (OIPMI) to look at trends across online platforms from insurance, to booking accommodation, and grocery and food delivery.²

At the provincial level, the Western Cape Government's Digital Economy Unit has been particularly concerned with urban platforming. The unit is a sub-programme within the Strategic

Economic Accelerators and Drivers (SEAD) Branch within the Department of Economic Development and Tourism (DEDAT). The unit is responsible for rolling out various projects to stimulate growth and investment in the digital economy. This is done primarily through the Digital Opportunities Framework and the Western Cape Broadband Strategic Framework (WCBSF).³ The unit is currently driving several projects: GoDigital Western Cape; Regional Global Positioning; the Digital Technology Ecosystem Support Programme; JUMP, a digital business support platform; the Khayelitsha Bandwidth Barn; I-CAN Learn, I-CAN Centre Elsie's River; Skills Boost Western Cape; the Early Stage Investing Course; I-CAN Work; and I-CAN Play.

Since 2014 the City of Cape Town municipality has been committed to increasing investment in infrastructure by laying out a network of fibre-optic cables across the entire Metro that, to date, consists of 848 km of optic fibre cables. The vision is to extend this to over 1,800 km with approximately 60 switching facilities. Fibre-optic cables and microwaves are currently linked to 300 city buildings with speeds of up to 1 Gbps. This network is currently operated on an open access basis, whereby licensed telecommunications service providers can extend their reach and provide broadband services to customers at tariff rates. The municipality has implemented a strategy called DigiTech to continue to invest in commercial telecommunication services and assist commercial companies in extending their broadband services to customers. The City of Cape Town offers services related to the colocation of equipment in switching centres as well as cross-connecting the City's and clients' network infrastructures. This kind of digitisation strategy has made Cape Town an attractive place for investment in startups. It is on the back of this ICT infrastructure, aligned with the impulse to digitise, that the platformisation of motorcycle delivery has proliferated.

The City of Cape Town also plays a central role in managing and regulating urban mobility. For example, its Urban Mobility Directorate is responsible for the effective functioning of the road network in Cape Town Metro, which includes the integrated public transport network, while the City of Cape Town Municipal Traffic Department is responsible for issuing motorcycle licenses. The City's New Generation Technologies Strategic Framework (in draft), is a response to the need to integrate mobility and ICT. In this policy, Cape Town plans to be a testing bed for connecting disparate functions of urban mobility. However, there is currently no overarching legislation or strategy that deals with the intersection of motorcycle labour relations, transport and ICT, and we are yet to see the details of the New Generation Technologies strategic framework.

² The Inquiry found that Takealot dominates the e-commerce market, while Mr D and Uber Eats dominate the food delivery sector. The Inquiry encouraged competition and the participation of smaller delivery platforms, but did not make explicit recommendations for how this should be done or how increased competition in the space would affect labour, mobility and transport in the city.

³ The WCBSF preceded the National Broadband Strategy. It sets out a holistic approach to broadband deployment in the province and all the recommendations of the national policy.

3.

Motorcycle delivery platform ecosystems in Cape Town

For this study we looked at platforms that include motorcycles in the platform or through other digital technologies such as WhatsApp. As in Nairobi and Kigali, these platforms are not all the same and have different business models, labour regimes, and governance arrangements. However, one of the major differences between Cape Town and the motorcycle platform industry in East African cities is that, in Cape Town, commuters are not transported by motorcycles. Motorcycles in Cape Town are only used for the delivery of food, groceries, pharma, and other parcels. The exact reasons for this are beyond the scope of this report, but we can speculate that the dominance of the minibus taxi industry in commuter transport in South African cities plays a huge role in this context. Furthermore, the reliance on private car ownership is another factor that may influence the transport dynamics in Cape Town.

As in the case of Nairobi and Kigali, we used taxonomies to illustrate and analyse the nuances within the motorcycle delivery platforms. The first taxonomy looks at what is being moved around on motorcycles, which indicates the different and diverse functions of these platforms.

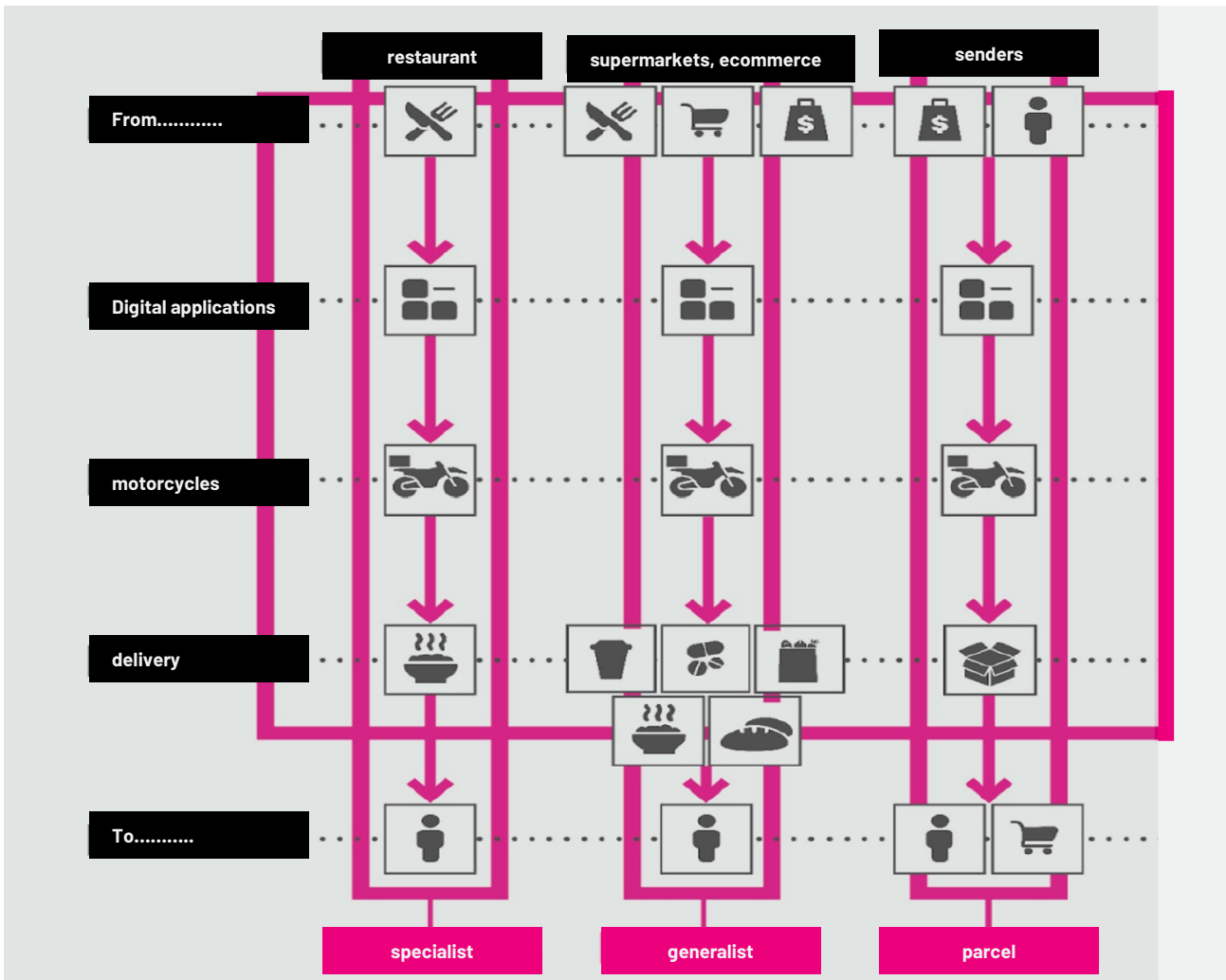


Figure 2: Different types of platforms and the goods they move around. Adapted from Sitas et al., 2022.

Description of Cape Town's platforms

In Cape Town we see a mix of international platforms like Uber Eats, national platforms such as Mr D and OneCart, and local platforms like isiKuta Couriers ZA. Most platforms include apps that can be downloaded onto smartphones, while others involve going onto a website to log a delivery quote, and one or two use WhatsApp. Riders who make these deliveries and move goods around are usually integrated directly into the app or connected through WhatsApp. Many platforms include driver apps where driver history is logged and reordered for efficiency and performance.

Table 1 provides an overview of the motorcycle delivery platforms in Cape Town. The table illustrates the platforms found in the ecosystem, when they became operational, a description of products, their spatial footprint in terms of the geographical areas in which they operate, and the payment options customers use to pay for the goods and the delivery service.

Table 1: Overview of motorcycle delivery platforms in Cape Town

Platform/app	In operation	Service description	Product description	Operating areas / Spatial footprint	Payment options
Mr D	First established in 1992 with telephone ordering and acquired by Takealot in 2014. The app was launched in 2016.	Online food delivery service	Food delivery	Across Cape Town	Card Cash EFT in app First National Bank customers can pay with eBucks
Uber Eats	2014	Online food ordering and delivery service	Food delivery from restaurants and convenience stores, and online shopping from a grocery store depending on location. Other product categories include alcohol, pet supplies, pharma, retail, and speciality foods.	Across Cape Town	Card Cash Gift cards and vouchers Customers also have the option of getting a Cape Town Eats Pass for a monthly subscription of ZAR 29.90 (USD 1.65) for orders over ZAR 80 (USD 4.40)
Uber Connect Moto	2022	Peer-to-peer delivery of any parcels and packages	Parcels and packages	Across Cape Town	Card Cash Gift cards and vouchers Customers also have the option of getting a Cape Town Eats Pass for a monthly subscription of ZAR 29.90 (USD 1.65) for orders over ZAR 80 (USD 4.40)
Bolt Food	April 2020	Online food ordering and delivery	Food delivery	Across Cape Town except Mitchells Plain, Khayelitsha	Card Cash Customers can also pay with Bolt Balance
Checkers Sixty60	November 2019	60-minute delivery service	Grocery products, stationery, home appliances, liquor, toys	Across Cape Town, with selected locations offering delivery of liquor.	Card First National Bank customers earn eBucks when shopping on Checkers Sixty60 (No cash)

Platform/app	In operation	Service description	Product description	Operating areas / Spatial footprint	Payment options
Dis-Chem DeliverD	2021	60-minute / same-day delivery service	Health, beauty, nutrition, cosmetics, and electrical products	Across Cape Town	Gift card Card payment via PayGate and PayU EFT via Ozow, Visa, Discovery Miles, Mobicred
Pick n Pay ASAP!	Initially Pick n Pay partnered with the delivery service company Bottles, but in October 2020 it bought the app and relaunched as Pick n Pay ASAP!	60-minute / same-day delivery service	Groceries, liquor	Across most areas of Cape Town	Card
McDonalds Delivery	2014	Delivery of McDonalds food products	Fast food	Selected parts of the city	Card
KFC Delivery	2021	Delivery of KFC food products	Fast food	Selected parts of the city	Card
Debonairs Delivery	App released November 2012	Delivery of Debonairs food products	Fast food	Selected parts of the city	Card
OneCart	Launched in 2016 in Johannesburg and 2018 in Cape Town	On-demand grocery concierge and delivery services	Online shopping at different grocery stores using one app, with a single delivery	Selected parts of the city, depending on which stores they have partnered with	Card
OrderIn	Launched in 2013 for online food delivery and first to have a delivery app in 2015. Relaunched in 2021 as a delivery service platform.	Delivery service	Helps other businesses with delivery capabilities and provides retail companies with end-to-end solutions, including the software needed to build the service and delivery fulfilment. It gives businesses access to OrderIn's fleet of drivers to deliver products.		Card
isiKuta Couriers	2021	On demand, same day, hand-to-hand parcel and food delivery platform	Parcel and food delivery, medical equipment, e-commerce, textiles, electronics, documents	Anywhere within a 40 km radius of its offices in Table View	Cash on delivery Online Instant Yoco payments EFT Buy Credit & Top-Up Account 30-days terms account for select businesses

Platform/app	In operation	Service description	Product description	Operating areas / Spatial footprint	Payment options
Dropa	2016	Pick up and drop off on-demand logistics services	Transport goods, parcels, furniture		Online payment: credit/debit cards and EFT
Udreo	2020	Pick up and delivery of parcels; specialises in cash on delivery	Collect cash on behalf of merchants and delivery of goods, parcels and documents. Udreo's cash on delivery service is a huge selling point to other businesses. Under 60 minutes / same day services offered.	Across Cape Town, with specific meeting points on the Cape Flats and 'high-risk' areas negotiated with customers.	Cash on delivery Card Udreo Wallet
WumDrop	2014	Last-mile delivery and crowdsourcing drivers	Offers same-day and on-demand delivery services to business and individuals; connecting businesses with drivers	Across Cape Town, with specific meeting points on the Cape Flats and 'high-risk' areas negotiated with customers.	Online payment: credit/debit cards and EFT Different price tiers for casual, occasional, regular, and super users
Picup	2014	A platform that helps other businesses with delivery and logistics	Services: on demand; geocoding; logistics management; fleet management for ecommerce. Grocery, automotive, pharma, retail.	Across most parts of Cape Town	Online payment: credit/debit cards and EFT
Drops					
MzansiGo	2017	Intra-city transportation and logistics services, with a network of vehicles, drivers and helpers ranging from delivery bikes to 8-ton trucks. Local moving services and truck rental packages.	Furniture, food/ grocery delivery, online shopping delivery for customers and businesses	Only a select part of Cape Town where motorcycle riders are available	EFT Card
ECD Easy Collect & Drop	2017	Delivery services in Cape Town, and from Cape Town to Gauteng. Various pick-up and drop-off options	small parcels	Pick-up points across Cape Town	Card

Platform/app	In operation	Service description	Product description	Operating areas / Spatial footprint	Payment options
Makro	2021	Partners with stores like Clicks and Engen to offer customers and retailers pick-up points across the city	Any small parcels purchased from participating online retailers	Pick-up points across Cape Town	Card
Woolies Dash	2021	Grocery delivery service from selected stores	Groceries	Select parts of Cape Town	Card

Mr D and Uber Eats are ubiquitous in food delivery services. There are several other platforms that cater to businesses that require a delivery service for their products. These delivery platforms can be considered delivery technologies and include Picup, isiKuta Couriers ZA, WumDrop, OneCart, and Udreo, to name a few. These platforms solve the last-mile delivery issues for online stores that would typically not service areas like the Cape Flats, townships, and peri urban areas in the city. They are important to the ecosystem and fill the gaps that typically would not be serviced. In this way these platforms increase the footprint of motorcycles and riders across the city. Supermarket delivery apps dominate the grocery delivery sector. Checkers Sixty60 is at the forefront of this model, followed by other delivery apps like Pick n Pay ASAP! and Woolies Dash.

Typologies of platforms

We now turn to applying the first taxonomy to illustrate how these apps work, focusing on the types of services they provide to their clients. Typically, delivery platforms act as two-sided or three-sided marketplaces.

Table 2: Service categories

Specialist	A platform/app offering two-wheel delivery of a specific type of product (e.g. cooked food, medicines).
Generalist	A platform/app offering two-wheel delivery of several types of products or a combination of products.
Parcel/Courier	A platform/app offering parcel delivery services for customers or other businesses (e.g. last-mile delivery services for e-commerce businesses), irrespective of the product category.

The second taxonomy is based on the types of goods transported and delivered on motorcycles through the delivery platforms.

Table 3: Service types available through Cape Town platforms

Platform/App	Specialist	Generalist	Parcel/Courier
Mr D			
Uber Eats			
Uber Connect Moto			
Bolt Food			
Checkers Sixty60			
Dis-Chem DeliverD			
Pick n Pay ASAP!			
McDonalds Delivery			
KFC Delivery			
Debonairs Delivery			
OneCart			
OrderIn			

Platform/App	Specialist	Generalist	Parcel/Courier
Scooter Couriers ZA			
Udreo			
WumDrop			
Picup			
Makro			
Mzansi Go			
Drops			
ECD Easy Collect & Drop			
Woolies Dash			

Platform business models

The third taxonomy is based on conventional business science categories. It focuses on how the services operate and on how the business see themselves. In the case of Cape Town, as for Nairobi and Kigali, platforms cannot and do not seamlessly fall within one category.

Table 4: Business models of platforms in Cape Town

Platform/App	Business-to-Customer (B2C)	Business-to-Business (B2B)	Customer-to-Business (C2B)	Customer-to-Customer (C2C)
Mr D				
Uber Eats				
Uber Connect Moto				
Bolt Food				
Checkers Sixty60				
Dis-Chem DeliverD				
Pick n Pay ASAP!				
McDonalds Delivery				
KFC Delivery				
Debonairs Delivery				
OneCart				
OrderIn				
Scooter Couriers ZA				
Udreo				
WumDrop				
Picup				
Makro				
Mzansi Go				
Drops				
ECD Easy Collect & Drop				
Woolies Dash				

A dominant business model in the Cape Town ecosystem is one where blue-chip grocery retail companies such as Shoprite Holdings Ltd and Pick n Pay offer their customers on-demand services through their apps (Checkers Sixty 60 and Pick n Pay ASAP!), but outsource or crowdsource through other delivery technology logistic technologies such as Mr D and Picup to manage these services. These platforms use their rider networks to complete the delivery service to customers. This connection is depicted in Figure 3.

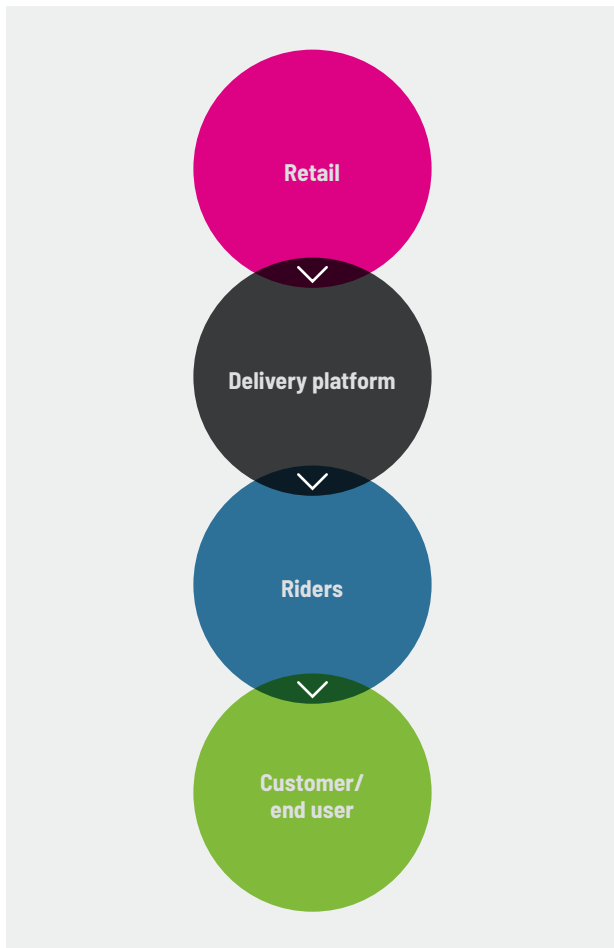


Figure 3: Business model of retail companies offering on-demand services

Figures 4–6 provide examples of how large shopping retailers rely on one or more delivery technology and the existing rider network to fulfil their last-mile on-demand delivery services. Shopping retailer Checkers launched its delivery app in November 2019 and it is now the leading grocery delivery app in the country with 300 stores offering the service and achieving 150% profit in the 2022 financial year. Checkers owns 50% of Checkers Sixty60, while RTT Logistics owns the other 50% and executes the last-mile delivery services to customers. Shoprite Holdings, Checkers’ parent company, has also launched its own on-demand company, Pingro. Although the exact relationship between RTT Logistics and Pingro is unclear, riders completing deliveries for Checkers Sixty60 are often seen in Pingro branding. In these examples we can see an interdependence between retailers and mobility platform companies in order to fulfil the new demand for delivery services and the riders and drivers who execute them.

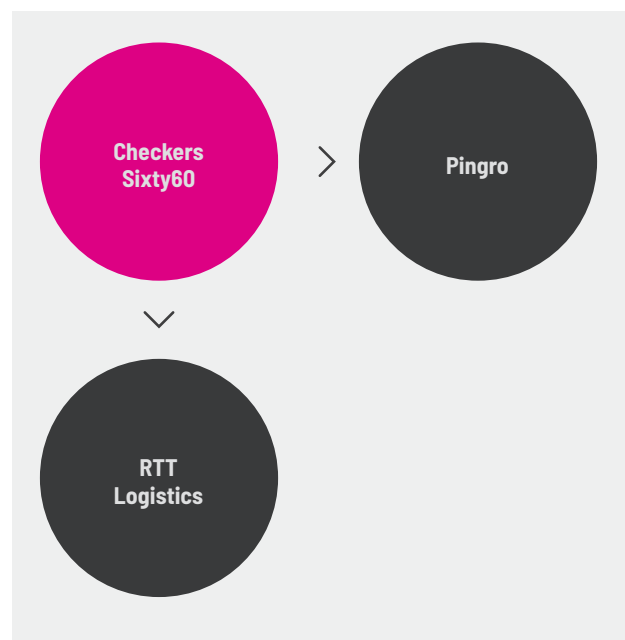


Figure 4: The relationship between Checkers Sixty60, RTT Logistics, and Pingro

The Pick n Pay ASAP! platform uses Mr D, which enables customers to shop for groceries on their Mr D food app. It also uses the Software as a Service (SaaS) of Picup rider networks to fulfil their deliveries.

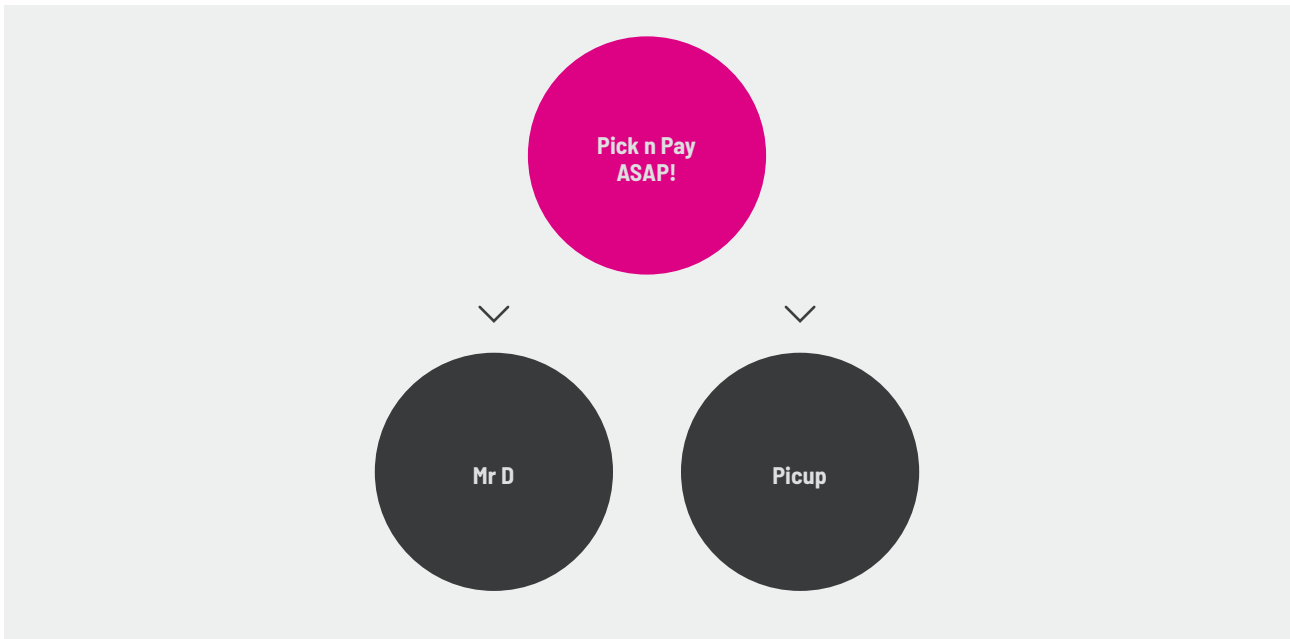


Figure 5: The relationship between Pick n Pay ASAP!, Mr D, and Picup

OneCart, a delivery platform where customers can purchase from several partner retailers, was acquired by Massmart. Makro, its subsidiary, uses the OneCart platform to fulfil its on-demand services to its customer base.



Figure 6: The relationship between Makro, OneCart, and Picup

Labour arrangements and riders

What we see in Cape Town is that one of the ways businesses are trying to circumvent challenges in last-mile delivery is through the decentralisation of workers. Rider networks are increasingly important to ensure success using this kind of business model. As a result there is escalating pressure on last-mile gig workers to do this kind of work. The delivery platforms themselves rarely have their own workers or fleets of motorcycles, presenting themselves as technology companies rather than delivery or mobility companies. Worker contracts and relationships are murky, and there is low worker satisfaction due to job insecurity and employment precarity. These conditions present risk and vulnerability, and who takes on that risk remains a question of interest.

The rider profile in Cape Town is predominantly foreign nationals – originally from Zimbabwe and Malawi, but increasingly from other African countries further north like the Democratic Republic of the Congo. This may increase the vulnerability of riders as they are typically excluded from formal banking and may require additional licences and work permits to become registered riders and work on these platforms.

Platforms typically recruit riders by advertising on social media platforms such as Facebook and LinkedIn. Some platforms even share promotional videos on YouTube about the experiences of working as delivery riders in an attempt to recruit new riders. Some rider contracts explicitly state that riders (called ‘drivers’ in the driver agreement contracts) are not employed and therefore not employees of the delivery platform companies. Potential riders are also offered incentives like not being charging commission for the first few trips in order to get them onboard.

Everyone is competing for a new group of delivery riders, but these guys are not being paid very much and the incentives to stick with one provider or one network is really low. The drivers are bearing most of the risk associated with their day to day – not necessarily the companies that are recruiting them.

~ Startup funder, 2022

Another perspective in the labour relations debate is that riders have the opportunity to offer their labour in areas where they might not have previously operated. In a sense, riders have a level of agency about where they can work and the areas in which they want to work.

4.

Cape Town Deep Dive

The following deep dives of Mr D, Uber Eats and Picup indicate that they are key players in the Cape Town mobility platform ecosystem. Through their respective technologies they enable other platforms to use software and access their rider network, essentially forming the backbone of the sector.

These cases are instrumental in the proliferation of other, smaller platforms also looking for a piece of the on-demand logistics pie. We start with Mr D, which is more than just a food delivery app as it is responsible for all of Takealot’s logistical operations. We include the story here to show the acquisition of the company and its evolution, highlight the network that makes up the e-commerce ecosystem, and illustrate how motorcycles aid in growing the platform on-demand ecosystem in Cape Town. We then consider Uber Eats as a global platform as well as its local dynamics, and close with the case of Picup, a fully home-grown technology platform onto which other platforms build.

Mr D (Takealot)

Takealot is South Africa’s largest e-commerce marketplace and has its headquarters in Cape Town. It is funded by Naspers, one of the leading tech investors in the world. Takealot acquired Mr D in 2014 but has evolved its e-commerce marketplace over more than 20 years. The acquisition of Mr D linked the giant marketplace directly to the motorcycle through fast food delivery and, most recently, grocery delivery.

Takealot boasts the country’s best online shopping distribution network, with pick-up points and warehouses in South Africa’s major cities, and deliveries that reach into rural interiors. It has expanded its department selection to over 21 departments across electronics, lifestyle, media and gaming, and fashion. The company prides itself on its customer-centric focus for online shopping in South Africa. The service can be accessed by going on the website or downloading the app. Customers can pay using their card, cash, FNB Wallet, eBucks, or EFT in the app. The Mr D app can be downloaded from Google Play, Apple’s App Store, or Huawei’s AppGallery.

Takealot has had an ongoing and evolving lifespan in South African e-commerce, first launching in July 2011 after the acquisition of Take2, an online retail company established in Cape Town in 2002. With the help of large investors, like media company Naspers, Takealot and USA investment firm Tiger Global Management, Takealot merged with one of South Africa’s largest online shopping websites, Kalahari.com. In the platform’s lifespan, Naspers, who also owned Kalahari.com, merged with Takealot.

In 2014, Takealot acquired food delivery company Mr Delivery (later renamed Mr D) and online shopping company Superbalist.com following a USD 100 million investment from Tiger Global Management. These acquisitions bolstered its market share and brought valuable e-commerce skills and expertise into the company as the founders and co-founders were now under the umbrella management of Takealot. Takealot and Mr D's prominence in the e-commerce and delivery platform space was bolstered by COVID-19 lockdown regulations, which saw a surge in the demand for online shopping. In September 2021, Takealot grew its revenue by 36% and narrowed its trading losses to almost breakeven.

Mr. D acts as a three-way virtual marketplace between restaurant partners, delivery partners (riders), and end users (customers requesting food delivery). Customers place orders either by logging onto the Mr D website after creating a profile or using the app on their mobile phones. The app offers customers daily restaurant discounts and offers a 'happy hour' on Fridays (4–6 p.m.) when customers can enjoy discounts from selected restaurants. After signing up, customers are sent promotional adverts enticing them to take advantage of daily deals with discounts of ZAR 50–100 (USD 2.80–5.50) when they spend, for example, more than ZAR 150 (USD 8.30). Customers are charged ZAR 35 (USD 1.95) for delivery, split between the restaurants and their patrons, with the idea of being a sustainable business model for all three participants. The platform's website highlights that there are over 8,000 restaurants to choose from, however this is highly contingent on which part of the city the food is being delivered to, which restaurants are partners in that vicinity, and the availability of riders in those areas. Customers are able to tip riders either on the app or in person with cash. The in-app tipping option is a feature that was added after customers had recommended it on Google Reviews.

In May 2022 Takealot announced that it had partnered with South African shopping retailer Pick n Pay to add its groceries and liquor products to the Mr D food app. In August 2022 the app launched a dedicated section exclusively for Pick n Pay customers to purchase goods and earn Smart Shopper points (loyalty points that can be used to purchase groceries or any items bought in-store). When customers place orders on the app, staff at Pick and Pay stores pick the items and hand them to Mr D riders to deliver. This is an interesting partnership given that Pick and Pay has its own in-house Pick n Pay ASAP! app where online orders and delivery for groceries and liquor can be placed.

Another interesting insight from this ecosystem is that e-commerce giant Takealot and new entrants in logistics tech, Pargo and ECD Easy Collect & Drop, have offered customers the option to collect products at pick-up points across the city, cutting out the last-mile delivery riders in the case of Pargo. Takealot and ECD Easy Collect & Drop, however, still use a combination of delivery riders and pick-up points. These configurations are an antithesis of the model we were interested in that specifically looks at last-mile delivery + motorcycles.

Uber Eats

In the Cape Town context, global-mobility tech giant Uber offers various platform services that deploy motorcycle taxis. However, the use of motorcycles for commuting is not part of the Uber offering in Cape Town, thus limiting its service to food delivery and parcels.

Uber is the largest ride-sharing company globally. It was introduced in Cape Town in October 2013, offering its ride-hailing services across most of the Metro. Initially it circumvented the Cape Flats and township areas due to perceived lack-of-safety issues, while still operating all the way to Stellenbosch in the Cape Winelands. This slowly changed, with more drivers seeking work and entrepreneurial opportunities servicing the areas in which they lived and were familiar. Following great success and capturing the market, Uber quickly diversified its offerings with UberXL, Uber Eats, and later UberGo. Uber has also extended its offerings to include Uber Connect Moto where end users can request to pick up and deliver parcels in and around the city. Customers can opt to use a car or motorcycle depending on the size of the parcel being couriered.

First tested as UberFresh in the USA as a lunch delivery service, when Uber Eats was introduced in 2016 it did not have its own app; instead customers were able to place orders using the Uber app and click on the 'Delivery' tile.

In research conducted in 2018 by Carmody and Fortuin (2019) they noted that Uber Eats was relatively new in the sector and operated by drivers using their cars. At the time, drivers mentioned that it didn't yield financial gain for them to drive around in their cars, wait in queues at restaurants and fast-food outlets, and possibly sit in traffic as they delivered the food orders to their destinations. The business landscape has changed dramatically since this initial research. Uber Eats is the largest platform for food delivery in South Africa, closely competing with Mr D (Competition Commission, 2022). Arguably this has been caused by the increase in motorcycles on South African roads and further exacerbated by the COVID-19 pandemic.

Like Mr D, the platform acts as a three-sided marketplace connecting a customer, a rider doing the pick-up and delivery, and a restaurant partner. Restaurant partners pay commission on the orders to Uber Eats, customers pay a delivery charge, and riders earn by picking up orders from restaurants and delivering them to customers. Uber Eats charges ZAR 10–15 (USD 0.55–0.83) per order and offers customers the option to tip drivers in the app. Although the delivery fees are low on Uber Eats, the mark-up on food is much higher. An item that costs ZAR 50 (USD 2.80) in-store could be ZAR 80 (USD 4.40) via the app, with additional service charges and a charge for small orders. Orders from convenience stores are generally double the price of in-store purchases.

In 2021 Uber Eats generated USD8,36 billion, representing almost 50% of Uber's total revenues. The increase in restaurants, convenience stores, and pharmacies makes the network more valuable as an entrepreneur ecosystem is created on top of the existing Uber Eats model (Figure 7).

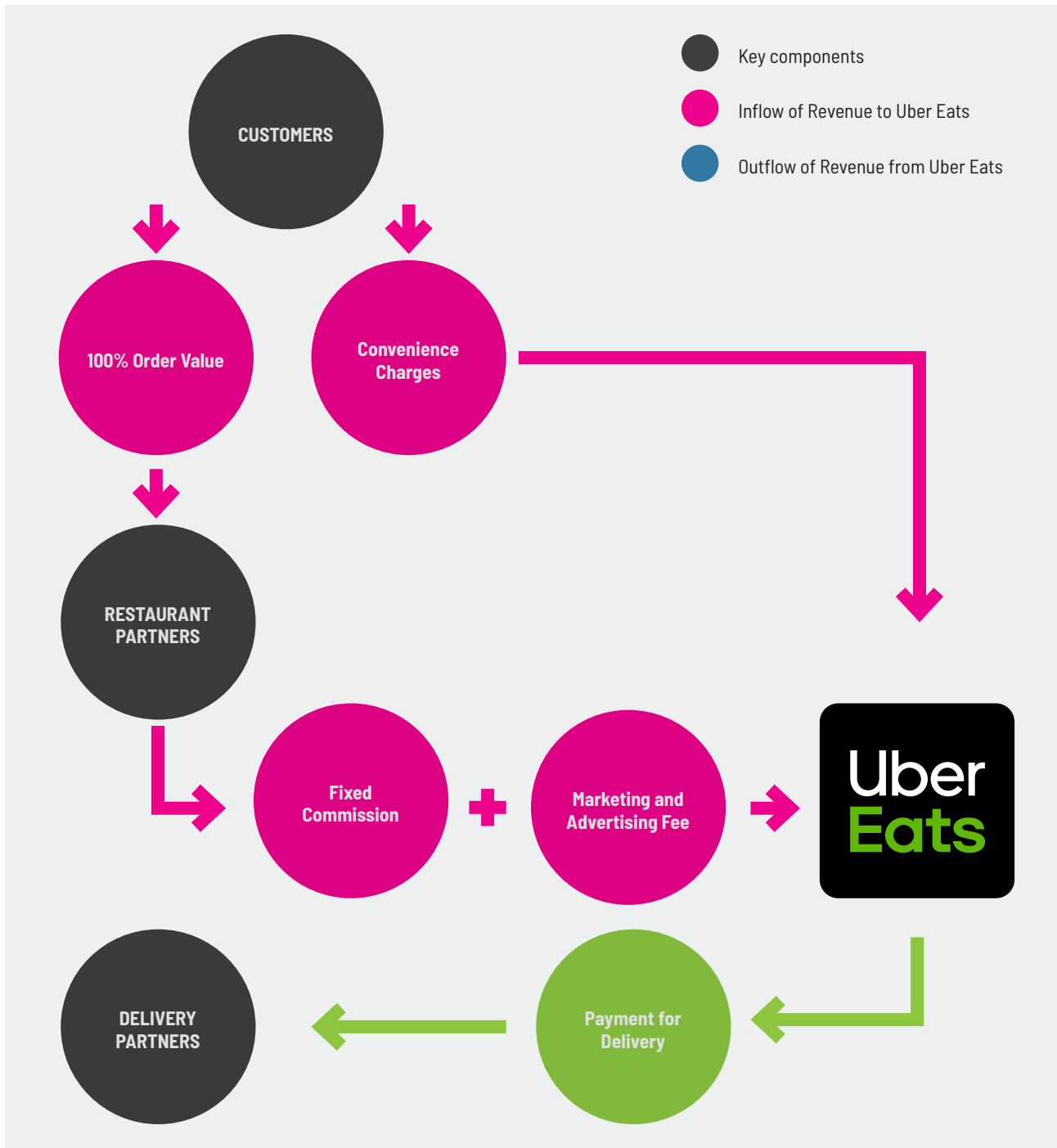


Figure 7: The Uber Eats Business Model (Source: FourWeekMBA (<https://fourweekmba.com/uber-eats-business-model/>))

According to the provisional results of the Competition Commission’s OIPMI, Uber Eats and Mr D are the leading food delivery platforms in South Africa. However, depending on which part of the city customers are using the Uber Eats app, they are offered a range of other services, stores and items to choose from, including pet supplies, pharmaceuticals, convenience stores, small supermarkets, and electronics.

Picup

Picup, also known as Picup Technologies, is a Cape Town-based last-mile delivery technology company that developed

logistics software and recruited a driver network, enabling other businesses to access this network for their own on-demand delivery needs. Picup is an acronym for People, Innovation, Collaboration, Ubuntu and Purpose, which are central to the core values of the business. Although Picup has a range of vehicle types that customers and other businesses to choose from, our focus here is on the motorcycle that bridges the last-mile gap.

Founder and CEO, Antonio Bruni, launched the business after having a poor delivery experience. He then came to the conclusion that logistics needed better tech. Bruni describes himself as serial entrepreneur interested in tech and has been

involved in several other tech startups in Cape Town, each with their own lifespans, with Picup by far the most successful.

Picup was launched in October 2014 following a successful round of seed funding from Naspers. In 2016 and 2017 it received two more rounds of funding and, by September 2018, 70% of the company was acquired by Singapore-headquartered Karooooo Ltd for ZAR 70 million (USD 3.87 million).

Karooooo is an 'on-the-ground' logistics operations cloud that uses data analytics for delivery management. Their additional offering, Cartrack, a SaaS platform, provides real-time data analytics and business intelligence reports. Since Picup is a technology driven logistics platform, it does not own any fleets or warehouses, thereby cutting transportation and warehouse costs to customers and businesses that partner with them.

One of Picup's key offerings, and a core part of their business model, is its crowdsourced driver network. Picup drivers are called 'legends' as they are seen as an integral part of the system. Drivers have to go through a vetting process and pass an exam before being able to register as a driver on the system. The platform uses a tech-driven approach to offer a variety of

logistics options through a two-sided marketplace: customers (individuals) and a suite of delivery partners. The platform offers various logistics options to individuals and businesses using trucks, light motor vehicles, and motorcycles, with the purpose of connecting business with customers, drivers with income opportunities, and consumers with goods and services using technology.

Owing to poor address systems and street names often being repeated, riders can get lost and delay the delivery process, upending the entire delivery experience. However, in 2018 Picup partnered with what3words, a geocoding technology that takes a physical address and translates it into a set of coordinates. The driver's app is installed with this type of technology and an advanced QR code structure that tracks sender and delivery addresses. The technology can determine the fastest routes and compile trips to achieve multiple deliveries across destinations. In addition, the digital feature tracks the packages to ensure a secure process. This is one of Picup's key marketing strategies to ensure a reduction in transportation costs for its clients. Tables 5 and 6 summarise Picup's suite of offerings.

Table 5: Picup's diverse offerings to partners and clients

Solutions	Features	Partners/Clients
On demand	<p>Instant collection where customers can choose 30-minute, 60-minute or three-hour delivery</p> <p>Custom email, SMS and WhatsApp alerts for customers</p> <p>Real-time proof-of-delivery for transparency in the delivery process</p> <p>Auto allocation of orders to multiple decentralised store locations</p>	<p>Dis-Chem Pharmacies</p> <p>Pick n Pay ASAP!</p> <p>OneCart</p>
Geocoding Addresses errors in address locations through machine learning, which stores historical location data for location accuracy	<p>Forward and reverse geocoding that converts physical addresses to coordinates and vice versa</p> <p>what3words technology that divides the world into unique three-word combinations to find and share exact locations</p> <p>Customers can use the platform's GeoPin to locate exact destinations</p>	what3words
Logistics management Enables clients to optimise the entire logistics process from supplier to customer through a self-managed cloud-based SaaS solution	<p>Order management and warehouse management system integration</p> <p>Custom Application Programming Interface (API) integration</p> <p>Select and transact with third-party couriers</p> <p>Smart geocoding</p> <p>Businesses can manage their own drivers or leverage Picup's crowdsourced driver/rider network</p>	<p>UCOOK (premium meal-kit delivery startup)</p> <p>Dis-Chem Pharmacies</p> <p>Waltons (stationery company)</p>
Fleet management Businesses are able to manage and route deliveries by assigning drivers (riders), and tracking and tracing the entire fleet	<p>Driver application on Android mobile phone for routes and order information</p> <p>Tracking of drivers for key performance indicators (KPI) and reporting, and estimated time of arrival (ETA)</p> <p>Monitor driver behaviour, harsh braking, and fuel consumption with integrated telematics solution</p> <p>Paperless real-time proof of delivery for orders</p> <p>Automated planning to plan delivery windows and calculate work hours to avoid overtime</p>	<p>Dis-Chem Pharmacies</p> <p>The Dog Food App</p>

Table 6: Picup's diverse industries, partners and clients

Industry	Features	Partners/Clients
E-commerce	E-commerce delivery software to integrate the online storefront with a full backend logistics system, for pricing and delivery management	Dis-Chem Pharmacies
Grocery	On-demand despatch software for on-demand and multi-parcel deliveries Transactional data available for distribution analytics	UCOOK OneCart Pick n Pay ASAP!
Pharma	Software to connect pharmacies to patients and deliver prescriptions Choice of on-demand, same day, next day, or standard delivery Real-time delivery tracking and alerts Fleet management through Picup's driver network	Dis-Chem Pharmacies Pick n Pay Pharmacy Clicks
Retail This is different from the grocery industry where partners do not have their own delivery platform but wish to offer a delivery service to their customer base	Allows retailers to use Picup to manage their daily deliveries through flexible scheduling, manage multiple warehouses from a single location, achieve end-to-end visibility, and obtain transactional data	Spar Shop2Shop (an app that connects buyers and sellers in the informal market with online payments) Pick n Pay Shopit

To date, Picup Technologies has expanded across South Africa and West Africa, with over 10,7 million kilometres tracked in South Africa, 5 million deliveries completed, and has crowdsourced over 1600 drivers, although it is unclear how many are motorcycle riders.

Emerging themes and insights

In contrast to other African cities, where motorcycles have always played a role in urban economies and mobility, platforms are driving the uptake of motorcycles in Cape Town. The platforming of economies creates the demand for agile and low-cost movement, which allow for low-value/high-volume movements. Many platforms are diversifying their already well-established logistics services and are using motorcycles to tap into new markets and develop new service offerings. This section draws out key insights from the Cape Town case, with attention on the specificity of the city context and the generalisable insights that Cape Town offers platform debates.

Cape Town as a site of platform innovation

Cape Town did not accidentally become a site of the platform experimentation we see at the interface between last-mile logistics, platforms, and motorcycles. There have been large-scale investments by the local government, acting in partnership with the provincial government, to make Cape Town attractive to all kinds of tech experiments and innovations. Platforms of various sizes and business models have built onto this technical backbone, developing innovations that demand these ICT services for their own development and access by their end users. The broadband and ICT infrastructure lays a solid foundation for future investment, attracting companies interested in tech questions. This, coupled with an advanced banking system, has proven to be a testbed for innovation in e-commerce in particular. Central government has also played a role in shaping the ecosystem in Cape Town. Although it seems to be behind the trend, playing catch-up and intervening at the latter end of dynamics, it has been instrumental in supporting the large-scale investments needed to shape Cape Town's business landscape and economy. The outcome is that Cape Town has a diversity of platforms and niches they seek to fill, with innovations being driven by large tech players (like Uber), as well as smaller local companies and even older legacy players (like supermarkets).

Uneven platforming and spatial dynamics

While Cape Town is experiencing platforming, it is not impacting all parts of the city in the same way. Differential platforming is apparent, with many platforms omitting some parts of the city due to inequality in land markets, sprawl, spatial inequality, and issues of perceived lack of safety. Whole areas are completely avoided, based on the location where a service is requested. Platform mobility, as well as products and services, restaurants, and stores, are all impacted by locational attributes

that are closely linked to historical and contemporary patterns of race and class. For example, it is only in recent years that Mr D and Uber Eats started operating in previously neglected areas further away from the city centre and in the northern and southern suburbs. Notably, in response to these gaps, some platforms formatted their business models to specifically service lower-income areas or excluded regions.

Supermarkets as drivers of platform innovation

What is interesting in the context of Cape Town is the way that supermarkets, as well-established legacy institutions, are experimenting in the platform mobility space. Supermarkets have been instrumental in shaping urban economies in South Africa and have been able to grow in scale and footprint across urban geographies. Encouraged by the restrictions of COVID-19, all major supermarkets now offer delivery services. These services have been developed using consumer data generated and collected over the last few years. Importantly, supermarkets have partnered with and rely on other logistics companies, like Mr D and Picup, to execute their operations, and are able to do so because of their cash reserves and the renowned reliability of their brands in the imagination of consumers across income brackets in the city. Supermarket innovation relies not only on partnerships, but also on the data collected and used to optimise platform operation and develop new service offerings. This way of 'seeing' the supermarket shows that platform innovation can sometimes be found in unlikely places.

New business models and emerging partnerships

This report foregrounds the new business models emerging in the platformed space. Motorcycle mobility allows for the diversification of offerings and services from small and large businesses, and we have seen how they become entangled and intertwined by using more than one platform, using one another's services, and creating corporate alliances and partnerships. The ecosystem conveys many B2B services that are being used by legacy retail giants in South African corporate history, and a few large online e-commerce entities like Takealot. We also see the emergence of three-sided C2C marketplaces, where the technology itself connects three 'customers' – retailers/food, riders, and end users – as in the examples of Uber Eats and Mr D. There is also a blend of partnerships and relationships among the different platforms, most notably Picup, Mr D, Pick n Pay ASAP! and OneCart.

New types of urban spaces

Another way in which last-mile delivery is shifting company business models relates to the rise of dark kitchens and warehouse facilities (rather than full restaurants and public stores). The success of last-mile on-demand delivery by companies like Mr D and Uber Eats has enabled an increase in dark kitchens, particularly in the city centre. Similarly, although this has not yet materialised, the success of platforms like Checkers Sixty60 and Picup could also see a move towards dark

warehouses, where on-demand orders may not necessarily be despatched from shopping centres or malls as they are currently. Overall, companies are iterating and shifting constantly, moving towards approaches that aim to optimise systems and models.

Fintech and payment platforms

This research points to the important role that fintech plays in unlocking last-mile delivery. The ability of companies to develop these offers requires payment options that are fast, reliable, and digital. In the Cape Town context, unlike many other parts of Africa, there is already a culture of credit card and online payments, making the shift to online payment gateways relatively easy. Platforms thus only need to integrate the payment system into new business models. Notably, fintech expansion provides new avenues for the datafication of the city, for example by tracking riders' movements, consumer purchasing patterns, and the actual flow of money between parties. The fintech landscape in Cape Town is incredibly broad, with innovations and offerings ranging from insurance and lending to blockchain, big data, crowdfunding, and payment options to name a few, indicating that future work on the relationship between fintech and last-mile logistics in Cape Town is very much needed.

6.

Conclusion

Overall, Cape Town provides an interesting case for platformed motorcycles, whereby motorcycles are coordinated through new platforms and used to overcome the distributed and diverse nature of urban fabrics in the city. Accelerated during the COVID-19 pandemic, and still underway, this tech transition is not only being driven by players in the tech space (such as Uber), but also legacy players (such as Checkers) that have realised the value propositions in last-mile delivery services.

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