UNLOCKING AFRICA'S FULL RETAIL POTENTIAL WITH A CROWDSOURCED ON-DEMAND DELIVERY PLATFORM

Authors: Adetayo Bamiduro, Chinedu Azodoh, Adeyemi Adepetu, Goerge Ezenna, Philip Abel
Editor: Tilman Ehrbeck

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Executive Summary

The twenty first century has seen a new Africa emerge, where the predominant theme is no longer war or drought, but a promising future in business, trade, governance and economic development. Africa is seeing the fastest regional growth rate today of up to 4.5% and this has been made possible by increased diversification, higher productivity and more efficient deployment of capital (Robinson, 2011). The expansion of the middle class coupled with better leadership and governance has enabled the Retail sector to see rapid growth. Africa has seen a windfall of foreign direct investment in recent years and this is proof that Africa is indeed ready for business, thanks to reforms that are being introduced by governments across the continent.

It is important to note that a good number of these reforms are targeted at the retail sector as this is the number 1 employer of labour in most African states (Faloye, 2014). An analysis of Nigeria's economy would reveal that its retail sector is growing rapidly (Chiejina and Olamide, 2014). A closer look at the entire retail industry shows that online retail provides more opportunity than offline retail because of its vast audience and its ability to scale.

This paper looks at Africa and zooms in on Nigeria's rapidly expanding retail sector and how it is creating opportunities in logistics and fulfilment. Additionally, this paper evaluates MAX.ng and shows how the Internet offers Africa an opportunity to achieve inclusive growth by building technology based marketplaces that aggregate resources and level the playing field for participants across several value chains.

Africa's inefficient and highly fragmented supply-chain and logistics industry remains one of its most critical development constraints. From healthcare to commerce, the debilitating effect of deplorable last-mile logistics is felt by millions. For example, Lagos – a city with over 20m residents and twice the population density of New York City is jam-packed with 224 vehicles per square kilometer compared to an average of 15 for the rest of Nigeria. This has led to severe traffic jams and the proliferation of motorcycles.

There are now about 60 cities across Africa that have more than 1 million residents. Lagos, Cairo, Johannesburg and Kinshasa have already exceeded the 10 million mark. By 2020, 50% of Africa's 1billion people would be living in cities. Unfortunately, the pace of development in urban-planning and transportation has not kept up with Africa's ongoing population explosion. This challenge needs to be addressed if Africa will unlock its full retail potential in the new golden age of technology.

MAX, a Social Impact venture in Africa's urban logistics space is using crowdsourcing, mobile apps, electronic maps and routing algorithms to build a transparent and high-performance logistics platform that provides on-demand fulfilment to businesses and consumers. MAX's goal is to organize Africa's historically fragmented urban logistics industry into an accessible, high-

performance and user-friendly platform. The MAX platform is focused on providing fast, reliable and transparent movement of goods within cities.

The purpose of this Paper is to demonstrate how technology can be harnessed to transform Urban Logistics in developing countries and provide such societies a unique opportunity to achieve inclusive economic growth without excessive affirmative action.

The ongoing experience of MAX.ng in Nigeria is proof that technology can be used to achieve high performance improvements in urban logistics by leveraging existing infrastructure, rather than building new ones.

The Opportunity in African Retail

Online retail has grown at 25% year on year in Africa over the past few years and consumers are spending more money through online platforms (Adeyeye, 2008). Android phones and mobile devices are the dominant channels for online purchases and they account for up to 80% of eCommerce transactions in Africa.
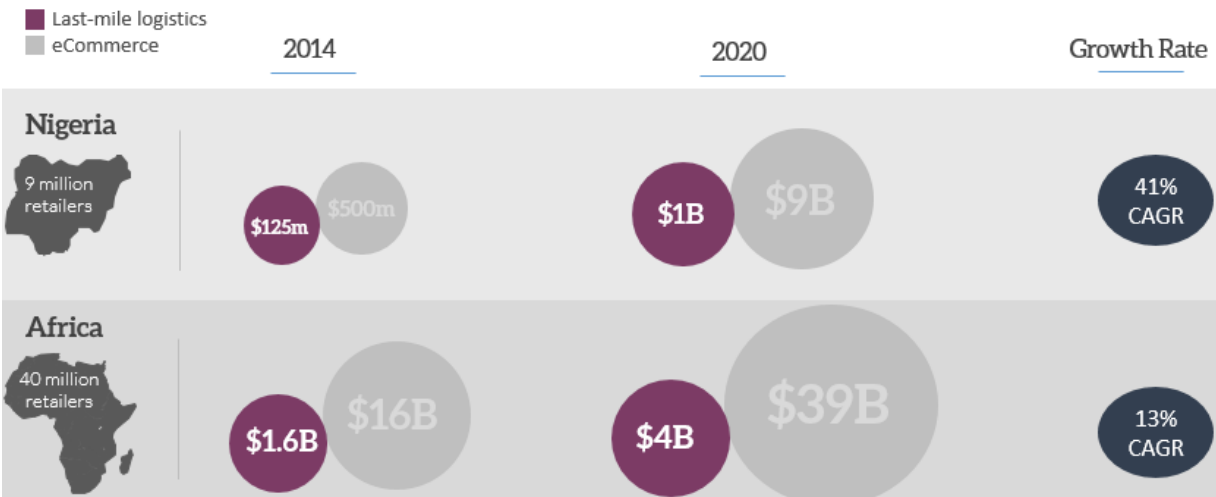
The growth opportunity in Africa's eCommerce and fulfillment industry (Nigerian Bureau of Statistics, 2012)

The number of internet connections and tech savvy individuals has also risen steadily and the huge categories of products that are available on African marketplaces today has made eCommerce very appealing to consumers. Mobile technology proliferation has also led to the blossoming of online businesses (Ajayi et al, 2008) and the increase in penetration of smartphones has led to the upsurge of mobile Commerce in Nigeria (Molla and Heeks, 2007).

Online retail platforms are proving to be a powerful and preferred medium for both merchants and consumers. A large number of items are being purchased online today and these include items such as computers, phones, tablets and cameras. In addition, retail fashion in Nigeria has grown and more people are willing and able to buy clothes, footwear, jewellery and accessories online.

Konga.com is an example of a renowned online marketplace in Nigeria that enables users order products and services from a network of over 15,000 local merchants, and have these products delivered to the doorstep of the consumer. The ongoing success-story of Konga is an indicator of how eCommerce and fulfilment is unlocking vast opportunities for small merchants on the continent.

According to a 2014 McKinsey report on Nigeria, retail is a key driver of Nigeria's economic growth and retail currently accounts for up to 20% of national GDP. Economist forecast Nigeria's economy will continue to grow at up to 6% annually over the next few years, so there is optimism that the retail trend will continue to grow.

The high population of young adults in Nigeria makes this growth expectation more compelling. Currently, there are at least 9 million entrepreneurial ventures that exist within the retail sector and about 30 million people are gainfully employed by this sector (SMEDAN, 2012). Without a doubt, Nigeria is capable of living up to the potential of its economy but there's a lot that has to be done to make this growth sustainable and inclusive. A focus on inclusive strategies is critical to reducing extreme poverty, reducing inequality and engendering peace.

Africa's Fulfillment Challenge

The online retail industry in Sub-Saharan Africa has demonstrated strong potential over the past 3 years with a minimum 25% year-on-year growth. This is faster than any other region in the world and recent investor activity is testament to this. Rocket Internet, MTN, Milicom, Naspers, Kinnevik and Helios are few of many VC and PE funds that are making multi-million dollar investments in African online retail platforms today.

However, there are still huge challenges facing the growth of online commerce in Africa. These challenges revolve mainly around payments and last-mile logistics. To begin with, at least 80% of e-commerce transactions in Nigeria are cash on delivery (Faloye, 2014). One reason behind this is that people do not trust electronic channels such as Debit/Credit Cards and e-Wallets. This situation is also made worse by the ever failing Point of Sale or POS systems which mostly run outdated GPRS technology. Issues such as phishing and online fraud have only made the situation worse.

While payment represents a challenge, logistics is worse as there has been little to no innovation in the space for decades. For example, the city of Lagos suffers from persistent traffic jams which makes it hard to deliver goods to consumers on time, and in good condition. The issue of traffic is made worse by weak infrastructure and poor road networks. There are also restrictive regulatory policies that have been imposed by regional governments. A persistent trend of motorcycle related incidents forced the Lagos State Government to introduce laws that disenfranchised motorcycle operators in 2012. This forced over 46,000 commercial motorcyclists into poverty.

In order to solve problem of logistics, local businesses have acquired a private fleet of motorcycles to do their deliveries (Faloye, 2014). However, many of the drivers who are employed to make deliveries are paid as little as three dollars a day. This means they are poorly motivated to work and hence end up making frequent late and failed deliveries (Chiejina and Olamide, 2014). Today, about 10% of all local deliveries fail, forcing customers to request refunds and businesses to experience higher operating costs. Therefore, these local businesses cannot be blamed for increasing product prices since logistics represents a huge cost element to them. As many of these businesses operate thin margins, they are forced to pass on these costs to the consumer, which then makes them less competitive and encourages local consumers to turn to international eCommerce platforms such as AliExpress.com. This obviously is bad for the local economy.

The MAX Example

MAX is an on-demand hyper-local delivery platform that serves the last-mile fulfilment needs of consumers and businesses in Urban Africa. MAX leverages Real-time Dispatch Technology, Crowdsourced Address Data and a network of Motorcycle Delivery Champions to fulfil delivery requests at the click of a button. MAX solves Africa's last-mile challenge by motivating Delivery Drivers with performance-based incentives and using mobile technology to enable high-speed pick-up and delivery.

Unlike FEDEX or UPS, MAX does not operate an asset-heavy model. Rather, MAX curates, trains and commissions Delivery Drivers from a pool of under-employed motorcyclists. MAX leverages its proprietary technology platform to connect authorized Delivery Drivers with businesses and consumers that need delivery support in real-time.
The MAX platform uses secure mobile communications, location services, route optimization and electronic payments.

MAX (www.max.ng) launched in August 2015 in Lagos - a city with about 500 thousand retailers and 20 million consumers. MAX has secured logistics contracts with more than 4

eCommerce clients and MAX currently provides last-mile fulfilment to a range of merchants and individuals.

Case Study of Lagos, Nigeria

- 20m Nigerians living on 1000 km^2
- 15x vehicle congestion average
- 600,000 people added every year
- Regional GDP of $100B
- Over 100,000 motorcyclists
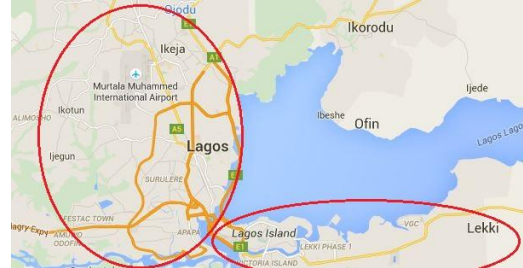
Map of Lagos

The Challenge Faced by Motorcycle Operators in Lagos

Meet Sunny

- 56% of motorcycle operators are aged 18 to 25
- 100% are immigrants
- 46,000 disenfranchised in Lagos
- 50% earn $3.14 a day
- Each supports an average of 4 dependents

A motorcyclist in Lagos, Nigeria

MAX's Impact Goals

MAX creates opportunities for small businesses, unemployed youth, women and motorcyclists.

a. **Unemployed Youth**: About 50% of MAX's Delivery Champions are below the age of 30.
b. **Small Businesses**: MAX aims to support 26,000 local businesses in 2 years.
c. **Women Empowerment**: MAX provides a delivery platform to enable stay-at-home wives prepare and sell home-cooked food to busy professionals in cities.
d. **Environment**: MAX leverages batched motorcycle-deliveries to cut back on the number of automobile trips. This helps to decongest cities and reduce carbon emissions.

The MAX Approach

> # MAX crowdsources motorcyclists and matches them with fulfilment requests from local merchants and consumers in real-time

How MAX Works

A diagram showing how MAX fulfils an order placed online by a customer.

When a consumer (recipient) orders a product from a merchant (sender), the merchant initiates a delivery request via the MAX Website/App. MAX receives the request and immediately dispatches the closest MAX Delivery Champion (MDC) to fulfill the request. The MDC then contacts the sender and recipient to validate the request before setting off. After the MDC completes the delivery, MAX captures feedback on the delivery from both sender and receiver. MAX then uses this feedback to optimize the delivery process.

MAX's Development Plan

Early Stage Growth

MAX has secured pilot agreements with leading eCommerce platforms and will accelerate growth through aggressive incentive based strategies such as customer referral programs, promotional campaigns, social media marketing and co-branding with leading brands.

Talent Development

MAX will institute a strong mentoring program to attract the talented young graduates and prepare them to take leadership roles as MAX expands across Africa. MAX will launch a rolling internship program that identifies and accepts the most enterprising college students in private and public colleges. MAX has also established relationships with international recruitment firms that facilitate recruitment of experienced African professionals seeking opportunities on the continent.

Response to Competition

MAX is the first-mover with a crowdsourced on-demand approach to hyper-local fulfilment in a challenging African market. Traditional couriers such as UPS and FedEx may attempt to mimic MAX but they would have to make costly architectural and business model changes to compete.

MAX anticipates response from VC funded logistics startups such as UBER. UBER's model is not suited for high-speed/low-cost urban transportation in Africa. In addition, UBER replicates its business model globally, so it will take significant localization to become a serious threat to MAX. MAX will provide localization, powerful user experience, value-added services, in-app payment and value added services to create a compelling offering.

Motorcycle Delivery Champions

MAX will hire smart and agile motorcyclist who would be required to pass through a robust screening and induction program. Training and development will be a key aspect of our Delivery Network expansion plan. MAX will provide attractive commissions to drive performance and maintain loyalty. Non-compliance would be promptly detected and addressed.

Value Proposition

MAX has articulated value-adding initiatives and product features it would offer to its customers and stakeholders in order to ensure success over the long term.

DELIVERY CHAMPS	MERCHANTS	CONSUMERS	CORPORATES	OTHER VERTICALS
*Rider performance	*End to end delivery	*Convenience	*Availability	*People transportation
- User ratings	*E- payment	*Security	*High-speed delivery	*Banking clients
- Commissions	*Inventory performance	*Mobile payment	*API integration	*Faith-based organizations
- Community	*Mobile store front	*Package tracking	*Security	*Healthcare

- Mobile app	*Security	*Loyalty rewards		*Energy
- E-payment	*High-speed delivery			*Clean Water
- Operations support	*Analytics			
- E-learning	- Location intelligence			
- Referral incentives	- Order patterns			
*Rider loyalty	- Consumer behavior			
- Career progression	- Inventory			
- Financial inclusion	- Pricing			
- Promotion rewards				
- Revenue sharing				

Conclusion

As online platforms continue to break barriers amongst people and communities, it is increasingly possible for consumers to purchase goods and services and have them delivered to the doorstep. Smartphones and mobile devices are equally proliferating and coming pre-installed with eCommerce applications that deliver consumer experiences that past generations could only dream of.

As the concept of crowdsourcing matures across the globe, we are finding it much easier to solicit for manpower, goods and services at cheaper and radically affordable rates. We have observed that Africa's retail sector has tremendous growth potential and the internet presents a golden opportunity to unlock value and drive the inclusive growth agenda.

The case study of MAX exemplifies the power of online platforms and how they can lead to high productivity improvements and better utilization of underutilized assets. However, the inclusive growth opportunity in online retail will only be realized if the challenge of fulfilment is effectively addressed to level the playing field for small merchants to get involved. A recommended strategy will be to adopt crowdsourcing and on-demand platforms as a way to eliminate inefficiencies, provide access to speedy urban fulfilment for every business in the ecosystem.

References

1. Adekunle, P. A., & Tella, A. (2008). Nigeria SMEs Participation in Electronic Economy: Problems and the Way Forward. Journal of Internet Banking & Commerce, 13 (3), 1-13
2. Adeyeye, M. (2008). E-Commerce, Business Methods and Evaluation of Payment Methods in Nigeria. Electronic Journal of Information Systems Evaluation, 11 (1), 1-7.
3. Ajayi, A., Aderounmu, A., & Soriyan, H. A. (2008). Improving the Response Time of Online Buyers in Nigeria: The Way Forward. Journal of Internet Banking & Commerce, 13 (1), 1-10
4. Ayo, C. K., Adebiyi, A. A., Fatudimu, I. T., & Ekong, U. O. (2008). A Framework for e-Commerce Implementation: Nigeria a Case Study. Journal of Internet Banking & Commerce, 13 (2), 1-12
5. Chiejina, C., & Olamide, S. E. (2014). Investigating the Significance of the 'Pay on Delivery' Option in the Emerging Prosperity of the Nigerian e-commerce sector. Journal of Marketing & Management, 5 (1), 120-135
6. Faloye, D. O. (2014). The adoption of e-commerce in small businesses: empirical evidence from retail sector in Nigeria. Journal of Business & Retail Management Research, 8 (2), 54-64
7. Kordić, N. (2014). The Extent of E-Commerce Presence in Developing Countries. Singidunum Journal of Applied Sciences, 313-317. Doi: 10.15308/Sinteza-2014-313-31
8. Kruger, H., & Fourie, L. H. (2003). An investigation into the uniformity and non-uniformity of online/offline retail brand building in South Africa. South African Journal of Business Management, 34 (4), 27-34
9. Molla, A., & Heeks, R. (2007). Exploring E-Commerce Benefits for Businesses in a Developing Country. Information Society, 23 (2), 95-108
10. Phillips consulting (2014). Online shopping report. A study into the online shopping trends within Nigeria.
11. Robinson, S. (2011). Wiring Africa's New Frontiers. Time Europe, 157 (7), and 28
12. Roxburgh, C, Dorr, N, Acha, L, Arend, V, Traik, A, Atkins, C. (2010). Lions on the move. The progress and potential of African economies. McKinsey Global Institute.
13. The economist. (2015). Enabling a more productive Nigeria powering SMEs. The economist intelligence unit limited.
14. Toesland, F. (2014). E-commerce makes a strong resurgence in Nigeria. African Business, (414), 50-52
15. Żurek, J. (2015). E-Commerce Influence on Changes in Logistics Processes. Logforum, 11 (2), 129-138. Doi:10.17270/J.Log.2015.2.
16. McKinsey (2014). Nigeria's renewal: Delivering inclusive growth in Africa's largest economy
17. McKinsey (2010). Lions on the move: The progress and potential of African economies
18. Nigerian Bureau of Statistics (2012). Annual Abstract of Statistics