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STRATEGIES FOR ADAPTING TO ONLINE ENTRY: THE CASE OF RETAILERS IN SOUTH AFRICA

Sha'ista Goga¹, Anthea Paelo²

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Abstract

Retail markets are being changed by online developments that have to some extent decoupled sales from geographic presence. Despite increases in online sales internationally, in South Africa bricks-and-mortar retailers remain by far the largest sales channel. However, increases in the size and market power of large online retailers internationally combined with technology changes in areas as disparate as inventory, payments and media mean that a sophisticated online presence is becoming increasingly important in some market segments. This paper assesses the steps being taken by retailers in South Africa to combine online sales offerings and delivery with their existing business models and how they perceive the threat from e-commerce. This includes separate assessments of the responses by supermarkets, clothes retailers and retailers of electronic goods. The paper also examines the interface between retail and technology beyond online sales and considers the potential impact that changing technology is having on adjacent industries and routes to market and its implications.

JEL classification: L1, F1, O3

Keywords: e-commerce, retail, online retail, barriers to entry, digital platforms

¹ Sha'ista Goga is an economist at Acacia Economics and a research fellow at CCRED, shaista@acaciaeconomics.co.za

² Anthea Paelo is a researcher at CCRED, antheap@uj.ac.za

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1. Background to the study

1.1 Introduction

E-commerce in South Africa has grown exponentially over the last decade with the introduction of dedicated e-commerce stores, online retail offerings from traditional brick and mortar retailers, online marketplaces and social media retail (including by microenterprises). While there are different estimates for the size of the market based on what is included in the definition, both Visa and Euromonitor estimate that the market for online retail in South Africa reached approximately R10bn in 2017 (Smith, 2018; Euromonitor, 2018). However, with the size of general retail trade at estimated to be R1 trillion in 2017, this still only amounts to 1% of the total retail market (Statistics South Africa, 2017). With mature markets exhibiting a higher percentage of online sales, led by the UK with 18% of sales online (Office of National Statistics, 2018), this suggests that South Africa currently lags behind other countries and that there is substantial scope for online retail to evolve and grow in the future.

The shift to online retail has not been always been smooth, however, and countries in which online retail is maturing are experiencing various disruptions as a result of changing consumer behaviour. The introduction of e-commerce fundamentally changes most components of the retail value chain from advertising to payments. These changes may impact on: levels of concentration in the value chain; the relative competitive strength of local as opposed to international providers; the sophistication of technology standards; and the skills required to compete and ultimately affect factors such as employment, local property investment and consumer welfare. Thus, careful consideration of the likely economic impacts of online retail on these factors, and the appropriate policy and regulatory responses is required.

This paper examines the impact of online retail on traditional retail within the South African market. It assesses some of the responses to the advent of online trade from South African companies. It also highlights potential employment effects as a result of these changes.

This paper was written as part of a study on e-commerce by the Industrial Development Think Tank, for the Department of Trade and Industry. It forms one of three papers on e-Commerce:

- In the first paper we outlined the competitive landscape in e-commerce in South Africa, describing the different e-commerce models that have emerged and different components of the value chain, including payment systems and logistics³. This included an identification of key challenges and emerging trends.
- In this paper we consider the impact of e-commerce on retail in South Africa.
- In the third paper, we assess the regulatory framework for e-commerce in South Africa and how it has shaped the trajectory for developments in the industry, with a focus on tax and trade policy.

³ Goga, S., Paelo, A., and Nyamwena, J. (2019) Online Retailing in South Africa: An Overview. IDTT Project Paper.

1.2 Methodology

E-commerce has a range of definitions. At its widest it encompasses the sale or purchase of goods or services over computer-mediated networks. A narrower definition is the sale or purchase of goods or services using the internet (OECD, 2002). This has over time grown to encompass a broad range of industries that may include services such as online educational courses, financial services and the sale of digitised products such as online games, video and music. In this study, we use an even narrower definition of e-commerce and focus specifically on online retail defined as the sale of physical products over the internet. This includes orders that are made over the internet where the payment is offline, but does not include orders made over other systems such as conventional email. Furthermore, we have excluded travel (including hotel and restaurant bookings), which comprises a large category of online sales, but has slightly different dynamics.

The study used a combination of qualitative and quantitative data. Primary data was collected from stakeholders in the value chain on the basis of a semi-structured questionnaire in face-to-face, telephonic and Skype interviews. Eighteen interviews were carried out comprising interviewees with expertise and experience in online sales, logistics and online payments in South Africa. Data was collated from online sources including company websites and the annual reports of listed companies. Secondary data was collated from a range of sources including Statistics South Africa, and commercial data sources from Similarweb and Euromonitor. This was triangulated with a review of academic literature and news articles.

This study focuses on the question of how retailers in South Africa firstly, are combining online sales offerings and delivery with their existing business models and, secondly, how they perceive the threats from e-commerce. We seek to assess the implications for key policy issues, such as market power and regulation, skills and local capabilities, taxation and trade negotiations (where relevant).

2. Impact on retail by sector

Innovation has led to a range of changes in industries in South Africa. Traditional retail, banking and logistics, for example, have all integrated technology into their operations. Retailers now use technology solutions for marketing, real-time inventory management, and the introduction of online banking and increased online security has allowed for substantial innovation in the payment arena. As such, digital transformation is improving the efficiency of traditional industries. However, in addition, the introduction of e-commerce as a new channel of retailing has also prompted responses and developments from participants in these industries.

The retail industry in South Africa is estimated to be in the region of R1 trillion sales per annum. Of this 44% is made up of general dealers, defined by Statistics South Africa (StatsSA) to be “non-specialised stores with food, beverages and tobacco predominating”, or “other retail

trade in non-specialised stores”, with textiles and clothing making up the second largest category at 18% as shown in the figure below.

Figure 1: Percentage of total retail trade sales by type of retailer



Source: Statistics South Africa (2018)

Retailers in South Africa have developed various responses to developments in technology and trends locally and internationally. Interviews across a range of retailers suggest that these responses are predominantly seen as a means of maintaining a competitive presence and providing customers with more options rather than a specific response to entry by e-commerce competitors who remain small at this point in many categories. The key themes that have emerged in terms of responses to technology and online retail include the following:

- i. Online retail is increasingly being used as an alternate and complementary sales channel to bricks and mortar stores.
- ii. There is increased integration between online and offline sales and systems, and data collected through these systems is used extensively in a range of areas.
- iii. Technology and social media is playing a greater role in marketing and communication with customers and as a route to market, with implications for the competitive power of certain technology platforms.

In what follows we discuss these themes with respect to their impact on grocery, clothing and electronics in turn before turning to the policy implications.

1.3 Grocery

Background

South Africa currently has a fairly concentrated retail market with the largest players, namely Shoprite, Pick ‘n Pay, SPAR, Woolworths and Fruit and Veg City accounting for between 80-

90% of the food market (Competition Commission Statement of Issues Retail Market Inquiry, 2016). By store number, Shoprite and Pick n Pay are the largest supermarket chains with 30% of stores, SPAR franchised stores form 20% of the market, Woolworths 9% and the remainder are held by Food Lovers Market, Massmart stores (such as Game and Cambridge) and Choppies. There is also a range of smaller independent retailers estimated at 134 000 nationally (Massmart, 2016). As such, it is a fairly concentrated market. This concentration is even more evident if the subset of retailers providing online shopping is considered. There are at present only two companies in South Africa that offer full online shopping services incorporating fresh produce, namely, Woolworths and Pick n Pay, with a further two providing limited non-perishable product ranges. It can be noted that these companies all have an existing bricks and mortar store footprint as well.

Interviews with supermarket owners suggest that the high level of concentration of online grocery retailers can be predominantly explained by two factors, the barriers to entry into efficient supply of online groceries, and the size of the target market.

a) Barriers to entry

Barriers to entry in grocery retail in general are high due to the economies of scope and scale inherent in the sector. Substantial investments are required to achieve efficiencies operations, and sizeable infrastructure investment is required for distribution centres and logistics networks. Furthermore, advertising and branding costs can be extensive (Das Nair and Dube, 2015).

Grocery differs from other many types of online retail, in the frequency with which purchases are required, the relatively low total spend of a shopping basket in a single purchase, and importantly, the fact that it involves the purchase of perishable or fresh products. Fresh produce requires particular treatment such as refrigeration and the establishment of what is termed a “cold-chain” to ensure that the produce does not spoil. As such, storage and delivery require investment and supply chain management is an important factor in determining competitiveness. In online retail, this also means that delivery needs to be fairly quick so that frozen or refrigerated products are not damaged which requires widespread localized distribution points and specialized smaller delivery vehicles with refrigeration capabilities.

In addition, the sunk costs of the website platform and technology is considerable. Interviewees have estimated that setting up the infrastructure required for online retail of groceries in terms of the website, platform and distribution centres are upwards of at least R50-100 million.⁴ As such, high investment requirements are a barrier to entry for online grocery retail.

Internationally fresh grocery has typically not been one of the first verticals that are entered by online contenders, and expansion into online grocery is often in the first instance from

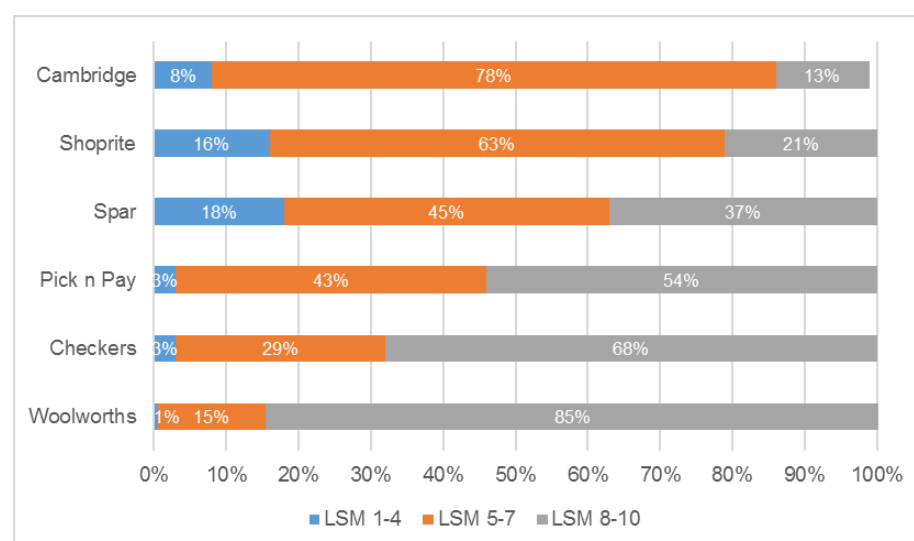
⁴ Interview conducted with Pick n Pay, 24 July 2018.

existing supermarket groups (such as Tesco in the UK). The same pattern is true in South Africa where online grocery retail was first entered into by bricks and mortar retailers.

b) Market size

The high cost of entry needs to be viewed in tandem with the small market size. Traditional retailers compete on price, quality, range and service (commonly termed PQRS). This may occur through differentiating their offering to appeal to particular target markets, often delineated in South Africa by Living Standards Measures (LSM)⁵. This may include the design of different branding and differently formatted stores to appeal to different target markets. While Woolworths focuses solely on LSM 8-10, most other groups have different formats targeting different income groups. For example, the Shoprite Group has Checkers stores targeted at higher income customers, Shoprite stores targeted at the middle to lower market and Usave targeted at lower income customers. As such, even when discussing a product type such as grocery or the subset of general merchandise there is substantial variation in the types of stores, their target market and the different groups' strategies in approaching them. The consumer segments of the key grocery brands in South Africa are shown below.

Figure 2: Target consumer segments of national chains



Source: Pick 'n Pay submission to Retail Market Inquiry

While there is substantial variation across locations and income groups, South African consumers on average have a low basket size. Market research group Nielsen estimates that

⁵ The Living Standards Measure or LSM is a marketing and research tool used in South Africa to classify standard of living and disposable income. It segments the population into ten deciles based on their relative means, with LSM 1 being the decile with the least and 10 being the decile with the highest living standard.

at present South African consumers shop 60 times on average per year with the spend per trip averaging R210 (Bizcommunity, 2018).

Online delivery requires the payment of delivery fees. The average spend per basket at R210 is low compared to delivery fees charged to customers, which at R50-100⁶ comprise between 25-50% of the value of the basket. As such, at present in South Africa online retail has appealed to and is often targeted at higher income levels and is used more for larger basket sizes than the average physical shopping baskets. It is estimated by one market participant that the current size of the market that shop online for groceries is 250 000, compared to 20 million that shop in their physical stores.⁷

The combination of the high costs of entry, combined with the small market size to some extent explains the pattern of responses to online technologies that have been seen in South Africa.

Online grocery shopping offerings in South Africa

Online retail of groceries in South Africa is fairly well established. The first wave of online retail websites and pilots were introduced in the early 2000s, and there have been substantial tweaks and developments to the offering which are reviewed below.

At present there are two full-service online retail options in South Africa. Given the LSM breakdown of the different retail groups it is unsurprising that this has been led by Woolworths and Pick 'n Pay.

a) Pick n Pay

Pick n Pay was an early adopter of online shopping as an alternate channel of sales to customers, launching an online retail offering in June 2001. Sean Summers, the CEO at the time described the rise of e-commerce as “*the most vexing and complex issue facing many organisations in the world today*” further describing it as representing “*one of Pick n Pays greatest challenges.*” They registered 43 000 customers within the first year. While there were costs to the development of the platform, and an estimate that it would take 3 years to break even, Pick n Pay noted that at that stage the costs being incurred were “not significant” in relation to their business overall. The website has since been developed and built up as a new route to market for customers to improve customer experience. However, it is one of nine store formats. It can be noted though that online retail has not been the only or most significant channel for expansion and has grown in tandem with a range of different growth strategies aimed at different target markets (such as expansion in stores targeted at lower income segments). In recent years Pick 'n Pay has invested more significantly in its online offering,

⁶ Goga, S., Paelo, A., and Nyamwena, J. (2019) Online Retailing in South Africa: An Overview. IDTT Project Paper.

⁷ Interview conducted with Pick n Pay, 24 July 2018.

opening dedicated e-commerce distribution centres in Johannesburg and Cape Town, while still leveraging off the distribution network that serves its supermarket stores.

Pick 'n Pay caters both for consumers as well as businesses. The target market for their online retail is higher LSM categories as well as businesses such as corporates who use the online delivery service to order supplies, and small businesses in the hospitality industry. The online store includes both home delivery and "click and collect" options which allow customers to shop online and fetch the order from a store.

In response to increasing smartphone penetration, they have launched a mobile interface and estimated in 2018 that 40% of online customers used their app, with an increase of 70% in use of the app from 2017 (Pick n Pay, 2018).

However, online shopping has continued to account for a small proportion of sales. While Pick n Pay see it as a vital part of their offering there is only a small proportion of customers who regularly use online shopping in contrast to the 20 million that frequent their bricks and mortar stores. For Pick n Pay, the basket size online is generally larger than physical stores. It can also be noted that Pick n Pay's online offering is focused on groceries and has not expanded to all product lines. Clothing for example, can only be purchased in physical stores.

Pick n Pay currently makes extensive use of data analytics in understanding their customers. The SmartShopper loyalty card used at stores provides a wealth of data which is used to understand customers and trends. This appreciation for data has been transferred to its online website, though they have not as of 2018 developed the functionality to use the loyalty programme online.

b) Woolworths

Unlike Pick 'n Pay which targets a range of formats and customers, Woolworths caters to clearly defined upper income target market (LSM 8-10) (Woolworths, RMI Submission). Woolworths also established an online retail presence in the early 2000s.

In 2017 online retail made up 0.7% of their sales, though this showed substantial growth with an increase of 33% on the previous year (Woolworths, 2017). Unlike Pick n Pay, Woolworths offers online retail for a range of products including clothing and homeware, though online shopping only comprises 1% of spend for groceries and 0.5% for clothing (Woolworths, 2018). Woolworths has experience in online retail in more mature markets, particularly Australia in which their stores have better penetration online.

Woolworths also has developed a mobile app. This app can be used for browsing, but requires that a customer connects to the website to actually make a transaction. Woolworths has integrated their instore cards with their online offering and customers can pay using Woolworths cards.

Both Pick n Pay and Woolworths are focused on developing their online offering. This includes reducing the time to delivery and the length of delivery slots. However, they are working on

numerous ways of using data and technology to create a better shopping experience for customers including remembering shopping lists and predicting purchases that the customer may need based on purchase patterns.

Both companies, however, note that this is a small offering at present, and complementary to, rather than replacing its physical stores.

c) Other responses from grocery retailers

Given there is a range of large retail groups in South Africa and only two are engaged in online retail, the next question is why the remaining groups have not entered the market. Spar and Shoprite/Checkers, Fruit and Veg City (including the Food Lovers Market brand) and Massmart currently have a limited online presence in groceries. It can be noted that both Shoprite and Massmart have online retail offerings in adjacent products such as electronics and furnishing (for example, Shoprite offers furniture and appliances through its House and Home website while Massmart offers electronics through Dion Wired and Makro and some furnishings through homeware). In the case of Massmart, non-perishable groceries are offered through Makro and Game. Shoprite as well as smaller and regional groups such as Choppies and Checkout have websites that allow customers to locate stores, and browse specials in much the same way that a printed catalogue would. They also provide some value-adds such as recipes. However, there is no online functionality for ordering and delivery of fresh groceries.

Massmart (incorporating Makro, Game as well as electronics stores Dion Wired) which is a smaller retailer but owned by international retail giant Walmart has entered online retailing and has a strong presence in general merchandise with non-perishable groceries offered. However, they have not as yet entered the fresh grocery market to offer full-line grocery retail as Walmart has done internationally, potentially reflecting some of the additional costs to fresh delivery and the current strengths of different brands in the fresh grocery sector in South Africa at present. However, it is likely that should they enter online retail they would be able to draw on Walmart's international experience as a large online retailer in markets ranging from the US to India.

Both Spar and Checkers piloted versions of online grocery sales at selected stores but these were abandoned. For example, in 2002 Checkers piloted online grocery ordering with drive through pickup within two hours at three Cape Town stores, but this was abandoned due to lack of interest. Likewise, in 2002 Spar set up an online retail option across a subset of stores which is no longer functional (Otter, 2002).

There are several explanations for the delay in the introduction of online retailing. As late as 2012 Shoprite was on record stating that they believed that the worldwide demand for online grocery shopping was low and that it was generally not profitable. However, Shoprite does actually have some online retail offerings. Checkers Food Services allows companies to order wholesale products online for delivery. It also offers customers access through its House and Home brand which has appliances and technology. Shoprite's strategic plan for 2020 includes

modernization of their technology which they state will enable omni channel and e-commerce and their 2017 integrated annual report notes that they are finalizing an e-commerce project. It is not clear whether this will remain focused at non-grocery products or whether they will move into the grocery space. As such they may enter in the future and it remains to be seen whether they are willing to make the investments and build a business model given the size of the market. However, they also experimented with other forms of e-commerce. For example, they recently began trialling limited delivery of certain packages targeted at their higher income Checkers clientele through UberEats at particular Cape Town stores (IOL, 2017). While not a full-service grocery offering comparable to that offered by Pick n Pay or Woolworths it provides packages of products (for example, a braai package, or a breakfast package, basics such as milk, bread and cheese) delivered within 40 minutes of order. It therefore services a different niche. Furthermore, Checkers allows for online ordering of certain goods such as party platters and fruit baskets for collection.

The Spar group has a different business model to the other large grocery retailers, with the corporate group operating primarily on the wholesale level as a buying group. Retail stores are owned by independent owners that operate to some extent in an autonomous manner. As such, it is less corporatized than the other groups and less integrated. Spar does not as yet have an online shopping option.

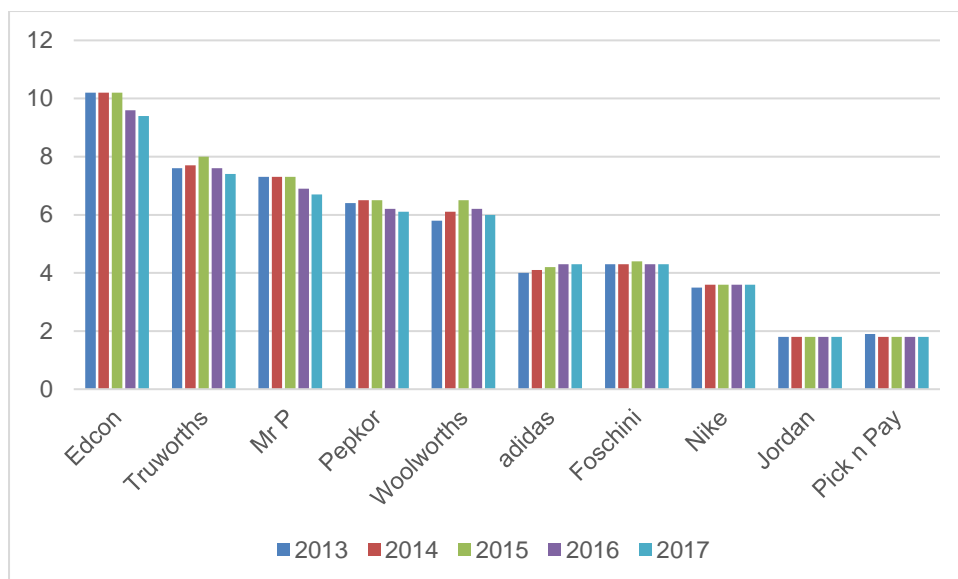
As such, grocery retailers in South Africa have cautiously embraced online retail to the extent that there is an appetite for it from the target clientele. The high sunk costs of distribution including cold delivery vehicles at this stage mean that greenfields entry is very unlikely and instead we would expect that growth in the sector comes from existing chains growing their offering.

Furthermore, indications are that South African retailers view online retail in grocery as an additional channel for sales that is complementary to physical stores. Thus, given the requirement for pickers, packers and drivers, is likely to have a fairly neutral effect on employment at this stage, though this could change with increased automation at warehouse level in the future.

1.4 Clothing

The apparel and footwear sector in South Africa was estimated to be worth R 1.76bn in 2017 (Euromonitor, 2018). There are a range of large local retail groups operating within the sector, the largest of which is Edcon with an estimated market share of 9.4%, Truworths with 7.4%, Mr Price with 6.7%, Woolworths with 6%, Foschini with 4.3%. In addition, there are a range of international brands and chains that operate (such as Adidas, Nike, Levi Strauss, Cotton On clothing and H&M) as well as a competitive fringe of clothing and shoe companies. The bulk of sales (over 98%) are through physical retail stores while an estimated 0.9% occurs through internet retailing (Euromonitor, 2018).

Figure 3: Market share of clothing retailers in South Africa (% of market)



Source: Euromonitor (2018)

Clothing retailers have been slower to introduce online offers than grocery groups. However, all significant clothing groups in South Africa have responded to developments in technology with the introduction of various online options with an exception of the Pepkor group. In parallel to the situation in the grocery sector, the lower income focused brands have been slower to introduce offers.

The Foschini Group: Online sales features prominently in the Foschini Group's strategy. The first online platforms were launched in 2015 and provided online options for the purchase of technology through the brand Hi and homeware through @home. In 2017 they launched online shopping for its core clothing brands Foschini, Markham and Fabiani, followed by its sports and outdoor brands in 2018, namely Totalsports, Sportscene and Due South. They now have launched what they term an "eMall" which comprises an online version of a mall with that allows a customer to browse the different Foschini group brands and purchase goods.⁸ Online sales accounted for 5.4% of the turnover for the 2017 financial year (however, this includes the contribution stores outside of South Africa such as Whistles and Phase 8 which make up close to 20% of the revenue). This is an 85.7% increase on last year. Over and above their e-commerce platform on which they sell 22 local South African brands, the store intends to open a third-party market place through which outside vendors can list products for sale.

Truworths: The Truworths group also offers its customers an online sales channel. While it previously only delivered to club members it has invested in and launched what its 2017 Annual Report refers to a "best of breed e-commerce platform" in 2018. Like other South

⁸ This covers a range of product types including Fashion (such as Foschini, Markhams, Fabiani, Raw, Exact, Donna, The Fix, Mat and May), Makeup (such as Foschini for Beauty), Sports (Totalsports and Sportscene), Outdoor (Due South), and Homewear (@home and @home living space) and technology (Hi).

African chains, it is leveraging from its experience with sales in more mature markets. For example, Truworths owns the shoe retailer Office in the UK which has 28% of sales online, and also has integration into the stores such as an online stock look-up facility that allows customers to check whether their nearest branch has stock of products that they would like to purchase. Brands available include a range of fashion brands (e.g. Truworths, Identity, Uzzi, Daniel Hechter) and Kids brands (Naartjie, Earthchild, LtdKids), while other Truworths owned brands such as YDE and Loads of Living have their own online stores. This expansion is also alongside physical expansion of store numbers.

Edcon: Edcon brands can also be purchased online. The key brands Jet (lower to middle income target market), Edgars (middle to upper income target market) and CNA (stationary) since 2012 (Bronkhorst, 2012) all have online stores with delivery and click and collect options. Edcon emphasises e-commerce less prominently as part of its strategy than its competitors.

Mr P: Mr P has online channels through which it retails fashion, homeware and sportswear. Launched in 2012, their e-commerce platform was replatformed in 2017 (BusinessTech, 2012). They now have both an e-commerce website and a mobile app. In the 2017 Financial Year their online sales growth was 31.9%. Furthermore, there is integration between store and online channels with 65% of customers browsing online before shopping in store. However, online sales still makes up a small proportion of total sales.

Woolworths: While Woolworths is discussed in more detail in the grocery section, the Woolworths website allows customers to purchase clothing and homeware on their website. Furthermore, they have a mobile app which customers can use to browse products (though not check out).

Pepkor: Pepkor has several brands targeted at lower income consumers, such as Pep and Ackermans. Unlike its competitors Pepkor brands do not have e-commerce platforms. Pep has no online presence and Ackermans has online catalogues but no online shopping functionality.

As such, the retail chains focused on higher income customers have all developed an online presence and some are extensively utilizing technology. In addition, several groups have invested in improving their e-commerce platforms in recent years.

Clothing sold by large retailers via e-commerce clothing sites are generally manufactured locally or imported in bulk and warehoused locally as part of the retail value chain. There is no evidence of the use of drop-shipping (in which a client's order is directly posted from an internationally located warehouse) by traditional South African retailers. At present, most clothing retailers are utilizing their store infrastructure and using e-commerce as an additional and complementary channel in response to changing consumer habits. Unlike grocery which has invested heavily in delivery infrastructure, most clothing retailers interviewed outsourced delivery.

There have been substantial barriers to entry for international e-commerce in the clothing sector which appears to have protected local retailers to some extent. For example, duties on clothing apply to shipments with a very low threshold relative to other international markets. Delays in postal services and a lack of clarity over final payment (once duties are incorporated), combined with high shipping costs have also advantaged local retailers as opposed to international e-commerce retailers. With clothing, in particular, the cost and effort of international returns is often seen as problematic when customers wish to try on clothing before purchasing it.

Our interviews suggest high levels of optimism about South Africa's resilience in the face of international e-commerce on the clothing front from the larger retail groups that we interviewed. There is a belief that customers still have a mall culture and enjoy touching and trying on clothing. However, retailers also have stated that South African retailers utilize technology and data extensively in inventory management and customer analytics and that many of them have the capacity to expand their e-commerce offerings fairly easily. In addition, they believe that they understand local customers, and are investing in aspects that they believe are important to the local market such as integration of store cards. There is a high level of optimism in the clothing sector that retail will not be significantly affected by international e-commerce.⁹ However, there is concern though that e-commerce is a less cost-effective method of retail than stores and that the international models common at present subsidize delivery.

It is not clear whether this optimism is misplaced given experiences in other countries in which changes in circumstances led to a rapid inflow of e-commerce goods. In the case of South Africa this may be the result of streamlined customs and duty systems and transparency over costs. However, factors such as store card integration and returns may indeed be relevant for the local market.

At present there appears to be no impact on employment in retail as a result of e-commerce and there has been increased investment in platforms by retail chains in South Africa.

1.5 Electronics

Several electronics and appliance stores in South Africa have an online presence. This includes large retail groups such as Massmart (through its Dion Wired and Makro brands), Shoprite (through its House and Home brand) and the JD group (through Incredible Connections and Hifi Corp). It also includes smaller companies and resellers on platforms. Electronics include technology products such as computers, phones and accessories, small appliances such as microwaves and toasters and large appliances from televisions to washing machines. These are generally produced by larger multinational electronics companies and

⁹ Discussions with Mr Price and The Foschini Group during "Digital Industrial Policy Colloquium" held on 12 and 13 November 2018 in Pretoria, South Africa.

brands. They are therefore standardized and easily comparable. Furthermore, they have a high value relative to delivery cost in the case of smaller products (such as phones or laptops) or require delivery even if purchased in-store (in the case of large appliances such as washing machines and large televisions). As such, electronics forms a more natural market for online sales and many electronics stores in South Africa have invested in online platforms.

For example, chains such as Incredible Connection have focused on creating omnichannel stores to integrate their online and offline offerings. This focuses on the interplay between online and offline shopping. Customers often use a combination of channels, for example, they may visit stores to look at and feel of products and talk to sales assistants before completing the purchase online. Alternately they may browse products online and even check for store availability before purchasing in person at a store once they have narrowed their choice set and viewed the products. Some electronics stores are looking at creating web-enabled stores in which customers can browse a wider range of options online from the store.

Stores are also using digital marketing to better understand and reach their customers. Importantly for the South African market, some companies have focused on online credit approval to simplify access to store credit which could then be used for online sales.

The electronics retailers that we interviewed showed more concern over the threat posed by online pure players such as Naspers' Takealot platform than grocery and clothing chains did.¹⁰ In addition, there was a sense that there was greater risk to local retail should an international online shopping company such as Amazon enter. They also highlighted the costs inherent in showrooms and the fact that customers could potentially shop in their bricks and mortar stores before purchasing the same online at a competitor with lower margins. In addition, there was concern that pure online retailers such as Naspers (through their Takealot platform) did not focus on profits in the medium term and were investing heavily, both in the platform and building up market share through heavily discounting products.

While there are threats to electronics stores from online retail, there are some categories in which stores with existing infrastructure have an advantage. In particular, for large appliances existing retailers with distribution centres may have an advantage as they cut down on transportation of large and often expensive to move items by stocking goods in closer proximity to the final markets.

However, due to the standardization of products, and the high value relative to the volume of smaller products, internationally smaller electronics has been one of the first categories to move online. At present, competition from international drop-shippers has been limited by their slower entry into the South African market due to barriers (such as postal services). Were this to change there is the potential for electronics retailers to be affected to some extent. Online retail therefore appears to be considered a greater threat to traditional retail in this area.

¹⁰ Interview conducted with large electronic retailer.

3. Trends and implications

For the companies that we interviewed, e-commerce has formed a component of a larger digital transformation strategy. This strategy involves the integration of offline and online retail technologies. In addition, technology solutions and innovations that interact with or support online strategies are being used across a range of areas such as improved payments, data analysis, effective marketing and delivery. There are several themes that emerge from our research and discussions with industry members that capture the core response to the introduction of e-commerce.

1. *Omni-retailing and e-commerce as a complementary channel*

Traditional retailers in South Africa that we interviewed, to a large extent see online retail as an extension of their current service offering, and often as a natural part of the broader digital transformation in their systems. A recurring theme in interviews was the concept of omni-retailing and integration between online and offline channels. Enhanced technology which allows for integrated inventory management and payment systems that straddle online and offline channels is a key feature in allowing for this. Companies also believe that storefronts are useful to customers in allowing them to view and feel products. In addition, providing return options across both channels is also seen as a feature that differentiates existing retail from online-only competitors. Some noted that their store or distribution footprint reduced entry costs, compared to online-only retailers. As such, rather than seen as a substitute for or competitor to stores, online retail is seen as a complement.

2. *Local adaptation:*

Existing retailers in South Africa are innovating to adapt international ecommerce models to the local market.¹¹ This is particularly important in accessing the lower income market who may not have access to features such as fixed internet services and credit cards.

A first is a focus on *payment methods* to service lower income customers. Given the fact that a proportion of customers are unbanked or lack access to credit cards, functional payment systems is important for the long-term growth of e-commerce. This has required some innovation on the part of retailers. A range of payment options are currently supported by retailers in South Africa to try to expand options available to customers.¹² This is driven both by innovation by retail groups themselves as well as by traditional payment system operators (such as Visa and Mastercard) and new payments companies whose innovations are supported by retailers (such as QR code based payment systems).

¹¹ Interview with The Foschini Group, conducted 9 October 2018.

¹² This generally includes Visa and Mastercard credit and debit cards, store and gift cards. They also allow snap scan, loyalty points such as Discovery miles and in some cases, store cards and crypto currency.

For example, store cards in South Africa typically service customers that do not have credit cards and have limited access to credit and is important in accessing middle- and lower-income markets. Given the prevalence of store credit as a means of payment for lower income consumers in their stores, TFG integrated their store card into the online store, the first store to do so in South Africa. They allow for splitting payments across payment mechanisms. TFG is also developing a chat bot using intelligent technology through which customers can make their payments by sending messages. A range of retailers support alternate payment systems, This, for example, includes mechanisms called “s-codes” which allow unbanked customers to pay in cash at a counter and enter the code online to complete their purchase.

A second feature is a concerted effort to *improve mobile offerings*. This is seen as a growth area given high smartphone penetration (in comparison to lower broadband penetration). Companies have launched mobile apps with functionalities that range from browsing, to purchase, and some of through which customers can make payments and check their credit limits using apps.

A third is the development of *innovative delivery models* given challenges in delivery within the South African context in which security of delivery can be an issue. This includes delivery to a customer’s real-time location (based on geolocation) and delivery to secure lockers at locations such as petrol stations.

3. *Extensive use of data*

South African retailers are making use of digital technology in multiple areas. This includes extensive use of data gathered through a range of sources including (i) customer behaviour on the company’s own website such as browsing history and order history, (ii) customer behaviour on other websites (through data collected from cookies), (iii) customer data garnered from other sources such as loyalty cards and store cards, and (iv) data from third party sources (such as aggregated data on Google search terms).

Data is used by retailers in a variety of ways. First, to understand consumer preferences and demand which feeds into supply decisions. Second, to understand broader trends to inform strategy. Third, to customize and tailor customer’s online experiences. Stores that we interviewed make use of data based on customer purchases, browsing behaviour and store/loyalty cards or credit usage where relevant, to build a customer profile. The profile enables them to target the customers with specific advertisements. For example, one clothing group noted that for their repeat customers they are able to determine on an individual basis the customer’s preferred items, style, colour and even the marketing campaigns that the customer would most respond to. This is used to customize adverts to them. Grocery stores in South Africa mine their customer loyalty data extensively and online data is an extension of this. Furthermore, they are attempting to use online data to create a system that generates customized shopping lists for customers to simplify ordering processes. Some companies interviewed appeared to be extensively utilising their data using tools such as machine learning and algorithms. However, some interviewees argued that South African retailers are

not using data in as sophisticated manner as they could and there is potential for data to be used more extensively as the market matures.

Individual level data is not used in isolation but is often combined with other online information, such as trends from social media or influencers trends, search engine keyword searches and traditional market research. It is important to emphasise that access to data alone is insufficient to allow a company to compete strongly. Rather the ability to *process* big datasets and *infer* is becoming an increasingly important component of retail competition. Companies that already use data at a large scale and have the personnel, skills and relationships to use data are therefore at an advantage. Our interviews have suggested that the larger retail groups in South Africa are able to leverage their investments and sophistication in analyzing data in in-store spheres to optimizing their online offerings.

4. The role of platforms

Platforms play an important role to retailers that engage in online retail, both as a route to market and as a channel of communication with customers.

South African retailers use online marketing channels for branding and use social media for marketing, increased consumer interaction and feedback. This includes engagement with customers via social media platforms such as Facebook, Twitter and Instagram. Developments in these areas create synergies with online retailing that feed off each other. Companies interviewed differed in the way in which they use online platforms. Advertising online and optimizing placement on search engines are invested in as an important route to market. For retailers that we interviewed, while traditional marketing tools such as billboards, magazines and television were used for brand awareness, for online channels a far greater emphasis was placed on online advertising. This primarily was focused on two key companies, namely Facebook and Google.

Online advertising can be based on placing adverts alongside searches, and by paying for their website to be “promoted” so that they feature prominently in a search (either by paying a platform directly, or by optimising words and phrasing). Various groups make use of search engine optimization to ensure that their products appear prominently in online searches.

Companies interviewed across the board have highlighted that Google is a key entry point. South African price comparison sites and smaller search engines were not seen as valuable in terms of reach and conversion to sales. Interviewees noted that Google was incredibly sophisticated and targeted and that their analytics allowed you to target customers with great specificity. One interviewee stated that a new form of smart shopping offered by Google increased their reach by 100%. In addition, online advertising through search and social media platforms allowed for a better understanding of how that money was spent as they could track what led to more purchases, what campaigns were effective etc.

Some companies interviewed spent a lot on online marketing for these platforms. For example, one had in-house script writers that write product descriptions to make sure that

products appear at the top of customer search lists on Google. Other forms of investment in online marketing includes spending on photographs and campaigns that translate well for the website as well for social media platforms. Clothing groups may have an in-store photo studio that they use to ensure that their products are displayed with high-quality video and still images for online display or platforms such as Instagram. Companies may also sponsor “social media influencers” by providing items or payment in exchange for wearing or featuring their products on their profile.

It can be noted that for smaller competitors access to advertising on the main platforms is expensive and often complex. As such, this is increasingly creating a barrier to entry for smaller businesses.

5. Investment in e-commerce is occurring

Companies are investing in both the technical and logistic aspects of e-commerce. While entry using commercially available websites and logistics companies is possible, larger retailers are investing more in customized platforms and often, own-distribution infrastructure.

This includes extensive investment in the technical platform. Many larger South African retailers have paid for customized interfaces and platforms for increased functionality rather than using off-the-shelf online retail platforms. While some have outsourced distribution or leveraged off their store footprint, there has been some investment in distribution centres. This investment was particularly large for grocery companies that required cold chain delivery.

While smaller companies can create an online shopping website, the costs of entry are increasing as the sophistication of offerings grow, though it can be noted that with innovation aspects such as delivery are declining in cost.

6. Impact on retail employment

Traditional retail is generally employment heavy. Concerns have been raised in numerous fora that online retail will lead to job losses in the sector. Traditional retail requires packers for shelves, checkout assistants, other support staff such as cleaners and managerial staff. In some formats such as technology and appliances staff play an advisory role and salaries may have a commission or incentive component. However, technology is changing the nature of the type of employment required in retail with some roles becoming redundant, others being created, while a third category require changed skills.

It can be noted that even outside of the online segment, technology changes have meant that employment in retail is changing. Internationally some groups have reduced retail staff by increased check-out automation. Digitisation is also being used in physical stores with inventory management tools reducing the need for certain stock taking functions. However, online retail adds an additional dimension to changes in employment. In online retail, recommendations about products are increasingly be steered by technology in the form of online recommendations personalised to the user based on cookies and algorithms. Chatbots that allow customers to ask certain questions are also becoming common in some industries.

Online comparison tools allow customers to compare specifications of different products where relevant (for example, in comparing computers or appliances). As such, in sales roles in online retail is minimal and is likely to shrink. Likewise, the need for cashiers is diminished. However, there is a need for new roles in fulfilment such as “picking and packing” in which employees fulfil a customer’s specific order, and delivery. While fulfilment can be somewhat automated at this point it is still labour-intensive.

As such, labour needs reside more in warehousing and fulfilment rather than at retail level. Thus far, based on companies interviewed, the net impact on employment in South Africa is not negative at this point. While online stores did not require cashiers or sales teams, the companies interviewed had hired additional staff for picking, packing and delivery to service their online offerings as well a (generally small) skilled team that focuses on e-commerce from a technical and marketing perspective. At present the small size of the online market has not led to the closure or downsizing of bricks and mortar stores for any of the firms interviewed or a reduction in their staff complement.

However, the interviews also provided the following general trends.

Firstly, the need for *skilled employment relative to unskilled* is increasing. New employment needs include individuals that are able to engage in programming and maintaining the platform, and manipulating and drawing insights from data.

Secondly, some of the new employment generated *can be easily off-shored*. Staff that are able to programme and manage the technical platforms and manipulate data (such as data scientists) are required in increasing numbers. However, due to the nature of the internet it is easy to hire these services remotely. Due to a lack of skilled personnel in South Africa this is currently occurring. Firms interviewed have noted a preference for local staff, but complained about shortages and the high demand for those skills internationally which has driven up salaries.

It can be noted that part of the skills required are practical skills that are generally developed through experience and training, rather than necessarily being based on degree level qualifications. This is particularly true of “implementers” who get programmes to work and update them. Skills in developing the technical platforms were cited in more than one interview.

7. Impact on adjacent markets

The shift in the means of operating also has several implications for adjacent markets. This includes shopfitters and property developers and advertising and marketing companies. It can be noted that the spend on these services are to a large part shifted to technology companies. For example, spend that may have occurred in shopfitting and rental for a physical store are now spent on underlying technology and platforms (for example, Magento owned by Adobe). Spend that may have been used on community newspapers, television or magazines may now be spent on routes to market such as Google. As such, increased spend by online relative

to traditional retail is being used on technology companies that are generally located in other countries.

8. Impact on new retail entry

As online retail grows and with it the investment and sophistication of offerings from traditional retailers it is likely that new entrants in the sector will be faced with increased barriers. This includes access to routes to market, such as optimization of search terms on Google, and placement on Facebook and Google. It also includes access to and an ability to process data in a manner that assists in optimizing customer experiences. The sophistication of online websites means that personalization of the experience will increasingly draw on big data and algorithms advantaging those with scale. This is likely to advantage incumbents with a customer base and some data to draw on (either through online volumes or complementary data such as from loyalty cards or accounts). Omnichannel retail also would advantage stores with a large footprint, particularly if innovative and cost-effective means of dealing with returns are not developed.

4. Conclusions

The transformative nature of networks and technology, combined with the ability to process large amounts of customer data, has allowed for enhanced inventory management, payment systems, marketing and strategy in retail. In addition, it has brought about the ability to sell products online, decoupling sales from physical location.

Large South African retail groups have all invested in technology and digitized, with many launching extensive online offerings. This was done more in response to improved technology than an imminent threat from online retailers, who at this stage do not appear to be a considerable threat. The online channel still accounts for a small proportion of their sales. Online retail is seen as a complementary channel and one that has targeted a particular subset of higher LSM households. Going forward most large retailers appeared confident in their ability to deal with competition from pure online retailer, though this may differ certain niches (such as smaller standardized electronic products). Many are also using their knowledge of South African markets to engage in innovation in a bid to expand the reach of online retail to middle- and lower- income markets.

However, there are several concerns. While online retail is still small, there are various potential impacts on the South African landscape. This includes a shift in the proportion of spend to international technology companies as services such as online advertising on search and social media platforms (specifically Facebook and Google) and platform hosting increase in importance and an increase in their market power. It also includes a decline in unskilled local employment in favour of skilled employment which could be based internationally. This is not currently prominent due to the small size of online retail. However, it is worth considering as the online retail market grows. Further consideration of skills development programmes and incentives to enhance local technology and employment is also required.

In addition, it appears that the level of sophistication in retail, the ability to process big data and the ability to access key routes to market, particularly through platforms such as Google and Facebook are likely to lead to increased barriers to entry in already concentrated markets. This should be monitored from both a regulatory and competition perspective.

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List of interviewees

	Company	Name of interviewee(s)	Position at company	Date of interview
1	Aramex	Denton Haridass	National Customs Compliance Manager	20 August 2018
2	Aramex	Mark Mahoney	Manager E-commerce Services	02 August 2018
3	Brownsense	Mzuzukile Soni	CEO	14 August 2018
4	DHL South Africa	Wayne van Rensburg; Carla Ferreira	Commercial Director; Relationship Channel Manager	16 July 2018
5	DHL Southern Africa	Hennie Heymans	CEO	06 August 2018
6	FNB	Bafana Mabasa	Operations Manager Foreign Exchange	14 August 2018
7	Hello Pretty	Samantha Marx; Scott Hadfield	Founders	07 August 2018
8	Large electronics retailer			10 September 2018
9	National Treasury	Aneesa Baig	Director Indirect Tax	16 August 2018
10	Nedbank	Dayalan Govender	Managing Executive - Nedbank Card and Payments	17 September 2018
11	Pick n Pay	Richard van Rensburg; David North	Deputy CEO; Group Executive- Strategy and Corporate Affairs	24 July 2018
12	Pricecheck	Kevin Tucker	CEO	24 July 2018
13	South African Revenue Services (SARS)	Adrienne Veary	Specialist: Legislative Research and development	18 August 2018

14	The Foschini Group	Brent Curry	Chief Information Officer	09 October 2018
15	The Payments Association of South Africa (PASA)	Walter Volker	CEO	20 July 2018
16	Uafrica/Bidorbuy	Andy Higgins	Managing Director	18 July 2018
17	Wantitall/Parcel Ninja	Justin Drennan	Chief Executive Officer (CEO)	23 July 2018
18	Woolworths	Ralph Buddle	Director, Strategy and business development	18 July 2018