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**National report on e-commerce development in
South Africa**

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Acronyms

ARPU	Average Revenue per User
C2M	Customer to manufacturer
CPS	Cyber Physical Systems
DACST	Department of Arts, Culture, Science, and Technology
DTI	Department of Trade and Industry
ECT	Electronic Communications and Transfers
FNB	First National Bank
GEM	Global Entrepreneurship Monitor
ICASA	Independent Communications Authority of South Africa
ICT	Information and Communications Technology
IOT	Internet of Things
NEF	National Employment Fund
NDP	National Development Plan
NYDA	National Youth Development Agency
PASA	Payments Association of South Africa
R&D	Research and Development
SA	South Africa
SACSA	South African Communications Security Agency
SAITIS	South African Technology Industry Strategy
SARB	South African Reserve Bank
SARS	South African Revenue Authority
SEDA	Small Enterprise Development Agency
SEFA	Small Enterprise Finance Agency
SMEs	Small to Medium-sized enterprise
SMMEs	Small, Medium, and Micro Enterprises
TIA	Technology and Innovation Agency
Treasury	Department of Finance
WTO	World Trade Organization

Executive Summary

Small, Medium and Micro Enterprises (SMMEs) in South Africa have been identified as strategically important to the economic development of the country. The National Development Plan, which charts the growth path of the country to 2030, sees small businesses as engines of economic growth, employment creators (with 90% of employment opportunities coming from small and expanding firms) and sources of innovation. Furthermore, they are seen as critical vehicles to achieve economic transformation and empowerment. In 2016 Q2, SMME contribution to GDP stood at close to 43%.

The nature of SMMEs in the country covers a wide spectrum of businesses from informal necessity driven one-person business (where most are), to formal and established businesses employing up to 100 people and well-integrated into the modern economy. In general, SMMEs sell goods in the same form as bought and are therefore not goods manufacturing and value-adding entities. About 21% of small businesses are in the services sector. In terms of growth, between 2008 and 2016 there has been a roughly 5% increase in the number of SMMEs from 2.18m to 2.29m respectively. This was in comparison to a 14% growth in GDP.

E-commerce in South Africa is still in a nascent stage compared to developed countries. This is clearly illustrated in the fact that despite a 26% growth in online retail in 2015 amounting to R7.5bn, this still constituted only 1% of total retail sales (compared to 8% in the US for example). Of an adult population (20 years and above) of 33 million, 3.225m or just less than 10% were online shoppers. Typical online shoppers are individuals that have had internet access for longer than five years and critical purchase decision factors are price, convenience, and fast and cost effective delivery time. Purchased items generally include media products, apparel and footwear, beauty and personal care, and food and drink. In this context, the UNIDO project to promote E-commerce between SMEs in the BRICS countries is a timely initiative for South Africa.

Some of the reasons for the relatively low uptake and use of E-commerce among SMEs can be attributed to the business challenges they face that act as barriers. These include poor access to business finance compounded by the lack of an asset base to serve as collateral, insufficient credit histories, difficulty in accessing markets, and inadequate management skills compounded by inaccessible business support services and weak physical infrastructure including communication infrastructure, utilities and transport.

In recognition of the vital role that small businesses play in the economy, the South African Government has put in place the SMME development and Integrated Small Business Strategy

that is executed and supported by a number of key institutions including the Small Enterprise Development Agency (SEDA), the Small Enterprise Finance Agency (SEFA), the government departments of Small Business Development, Trade and Industry and Economic Development.

Acknowledging the potential benefits of E-commerce for SMMEs, the Government has introduced the Electronic Communications and Transfers (ECT) Act which places an obligation on it to promote and support the role of SMEs in E-commerce. It is the legislative framework that regulates electronic communications and transactions and promotes the use of electronic transactions by SMMEs. Part 1 Section 9 makes specific reference to ensuring conducive infrastructure for SMMEs to transact electronically with an emphasis on ensuring compliance with accepted international technical standards.

In addition to the business challenges constraining the uptake of E-commerce, there are also technical and value-chain related issues facing SMEs. Firstly, there is the infrastructure access to and affordability of broadband where South Africa has one of the highest country data costs on the continent. The delay in completing migration from analogue to digital transmission which would boost uptake of E-commerce is another stumbling block. The concentrated telecoms network ownership that is partly responsible for high costs, also crowds out SME involvement in the sector and slow and expensive end logistics, compounds already existing end client fears around certainty in the delivery of goods purchased.

In terms of cross-border E-commerce, the geographic spread from which online purchases are made in the country includes 84% locally, 27% from the US and about 15% from Europe. This terrain is comprised of international firms with local representation e.g. E-commerce platforms Shopify by UAfrica, and PayPal by First National Bank (FNB). Payfast is the local equivalent of PayPal. BidorBuy is largest online market space with others including Gumtree and OLX. The government still faces challenges on the regulation and tax treatment of externalised funds due to the inability to track flows. One of the responses emanating from the South African Reserve Bank is incentivising merchants to adopt 3D Secure (under the auspices of the Payment Association of South Africa; a division of the SARB).

Going forward a number of trends that will impact on E-commerce have been identified. The growth of the shared economy, C2M and Cyber-Physical Systems represent opportunities for the further growth of E-commerce. Similarly, as the phenomenon of the Internet of Things (IOT) gains ground along with developments in AI and robotics as well as Big Cloud and data analytics, E-commerce is provided with further opportunities to become a major part of mainstream electronic transacting rather than an exception.

A set of key recommendations for growing E-commerce in South Africa have been identified and expanded upon in this report. In summary they include:

- Creation of a single umbrella body for the E-commerce sector to better address common business and technical related challenges faced by SMEs.
- Effective lobbying for the realisation of the broadband policy of South Africa to have a universal average download speed of 100 Mbps by 2030.
- Increased provision of education, training and mentorship programs for retailers with an interest to open online stores.
- Widespread adoption of automated online order processes by courier companies to facilitate better delivery performance and better tracking technologies to reduce theft and damage. This would facilitate the establishment of an affordable, reliable and comprehensive delivery network that is the key to building consumer trust.
- Baseline research to address the paucity of current data on SMEs in the E-commerce space.
- UNIDO, through leveraging of BRICS network, providing support to South African government to fast-track increased adoption of E-commerce in the SMME sector.

1. Background

1.1 E-commerce & Small and Medium-Sized Enterprises in South Africa

Small, Medium and Micro Enterprises (SMMEs), also referred to as small businesses, play an important role in the South African economy. The National Small Business Act (102 of 1996) in South Africa defines SMEs based on their standard industrial sector and subsector classification, size of class, equivalent of paid employees, turnover and asset value (Banking Association South Africa, 2017).

SMMEs are key drivers of economic growth, innovation and job creation. These enterprises contribute significantly to national GDP and have proved to be major contributors to job creation (The DTI, 2008). Against this backdrop, the government is aiming to put policies, strategies and programmes in place which aim to create an enabling environment for small business. In South Africa (SA), a large majority of SMMEs are concentrated on the very lowest end, where survivalist firms are found (Berry, 2002). According to World Wide Worx (2016), for the first time since the dawn of E-commerce in SA, online retail in the country was expected to reach 1% of overall retail during 2016. In 2015, the rate of growth in online retail was 26%, pushing it up to the R7.5-billion mark (World Wide Worx, 2016).

1.2 Cross-Border E-commerce Challenges

South Africa currently faces a number of challenges with regard to cross-border E-commerce. Some of the challenges are particular to government and some to SMEs. However, challenges of government in turn become major hurdles for SME companies as they slow down the pace of government efforts to create a suitable environment for SMEs to thrive (Worldwide Worx 2016)

1.2.1 Challenges Faced by Government

- The externalisation of funds e.g. in tourism where foreign buyers deposit funds in a foreign bank account. The South African Reserve Bank (SARB) is unable to track these type of transactions
- It is a statutory obligation for the government of SA to promote and support the role of SMEs in E-commerce (Electronic Communications and transfers Act 25 of 2002). However, key government institutions such as the Department of Finance (Treasury), SARB and The South African Revenue Authority (SARS) are still grappling with how to relate to cross border transactions and their potential high taxes. The fact that all these key institutions have no database of who is involved in E-commerce, let alone their size is a problem for the government. This has led to SMEs also facing challenges. Furthermore, the

identification and verification of taxable transactions is difficult. This in turn creates opportunities for tax avoidance that needs to be addressed.

1.2.2 Challenges Faced by SMEs

- Lack of or inaccessible broad band infrastructure. South Africa has lagged many countries in Africa in the development of broad band infrastructure. For this reason, among others, SA has one of the highest data costs in the world.
- Telecommunication companies are virtual monopolies in the E-commerce space and certain role-players, especially large corporations, are also key players in E-commerce and therefore sometimes crowd out SMEs
- The high costs of broad band services make it difficult for especially small enterprises to access.
- Customer-end courier and delivery services are still relatively slow and expensive therefore increasing costs and uncertainties for consumers.

2. Introduction

The rapid advancements in internet technology over the past two decades and the phenomenon of globalisation has revolutionised the way business is carried out across the world. The sale of goods and services across the globe has moved from brick and mortar shops to the internet enabling retailers to reach markets no longer defined by physical geography. Subsequently, there have been improvements in the delivery and synergies necessary to ensure goods purchased online are delivered on time and securely to the purchaser in any part of the world.

Such advancements have required an increasing nimbleness in response from government authorities in respective countries as well as from enterprises themselves to ensure that E-commerce is appropriately regulated to thrive and contributes in a transparent manner to the national coffers through taxation. While across the globe E-commerce has advanced particularly in the first world due to the availability of internet access as well as high speed networks and the attendant security, the uptake of E-commerce in developing countries has been slower and has faced a number of challenges. This is more so for the emerging companies in these markets, the SMEs, for whom in some instances, the promise of E-commerce has not been realised as they continue to sell to a market that is not online.

In an effort to contribute towards addressing the constraints and challenges experienced by SMEs in embracing the potential of E-commerce, this study was initiated by UNIDO to better understand the dynamics of E-commerce in SA, analyse the challenges and problems and

facilitate cooperation and exchange amongst SMEs in the BRICS countries, in particular in the area of E-commerce development. The results of this study as well as those from other countries will provide a platform for the identification and application of best practices of the BRICS countries and apply these, where appropriate, to other developing nations.

2.1 A Description of SMEs and E-commerce and Their Impact

In terms of definition, SMEs in SA cover a very broad range of firms covering formally registered entities, to informal and non-registered organisations. They include small businesses that range from medium-sized enterprises employing over 100 people, to informal micro-enterprises of a survivalist nature with the self-employed typically drawn from the poorest sections of the population¹. Those at the upper end i.e. small to medium are more comparable to SMEs found in developed countries.

The table below provides a helicopter view of SMEs in SA according to selected key indicators

Table 1 A Summary of Key Indicators for SMMEs in South Africa

Key indicators	For 2016(Q2)
Number of SMMEs	2 285 598
Number of formal SMMEs	677 444
Number of informal SMMEs	1 497 860
SMMEs as a % of total employment ² [1]	14.21%
% operating in trade & accommodation	43.65%
% operating in community services	14.21%
% operating in construction	13.20%
% operating in financial & business services	12.18%
% contribution to GDP	42.65%
% black owned formal SMMEs	34.51%
% operated by income group <R30k pa	7.11%

Source: The Small, Medium and Micro Enterprises Sector of South Africa – Research Note 2017 | No.1; Bureau for Economic Research, January 2017

¹ The Small, Medium and Micro Enterprises Sector of South Africa – Research Note 2016|No.1; Bureau for Economic Research, January 2016

² Number of employers and self-employed people as a proxy for the number of SMMEs

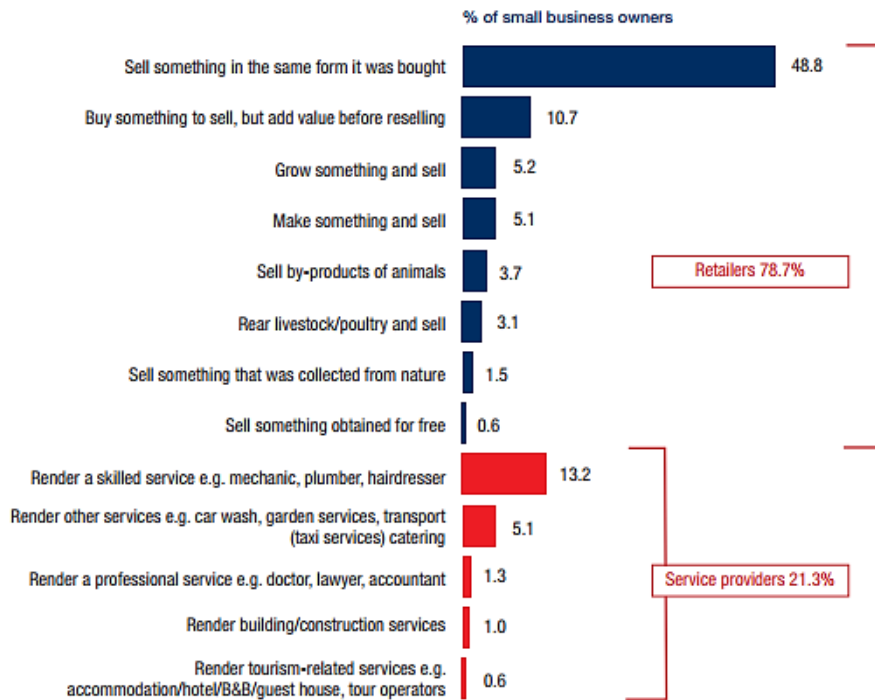
In terms of the potential development impact of E-commerce in the context of the 4th industrial revolution, SMEs are leading the innovation and the uptake of new technologies due to lower shifting costs and the high tech nature of start-ups. Technological change is driving exponential change in society. Some of the key technological changes include:

1. The advent of nanotechnology which has rapidly propelled chip development. This has resulted in faster, smarter, and infinitely smaller and less expensive machines.
2. The phenomena of data storage and computing power increasing exponentially in capacity while decreasing in cost, has enabled more mobile computing power than previously thought.
3. Advances in battery technologies and software development such as the advent of 4th generation software, dramatically increased the performance and effectiveness of programs which also supports the growth of mobile computing. New programming languages which are essentially hardware agnostic has fuelled this growth.
4. The next generation of advancement will be seen as mobile, convergence, wireless, cloud computing and the user as a contributor and collaborator. These developments have given rise to the 3 key drivers into the future. These are:
 - a. Mobile computing
 - b. Broad-band internet
 - c. Social media

Consumers empowered by the powerful mobile devices such as smartphones and tablet computers communicate when they want, to whom they want and whenever they want and using whichever format they want (L. Freedman, Etailing Group 2011:2).

In terms of the nature of goods and services provided by SMEs in South Africa, there are great variations as illustrated below.

Figure 1 Nature of South African SMEs

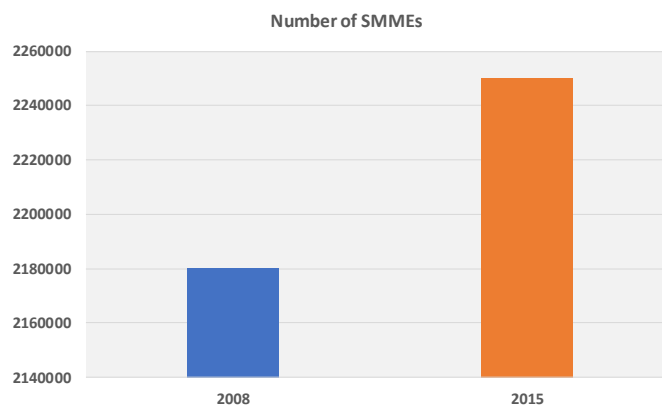


Source: FinScope Survey 2010

2.2 Five-Year Trend Analysis of GDP in Relation to SMEs & E-commerce

According to a BER study for SEDA³ looking at trends between 2008 and 2015, the number of SMEs increased (as illustrated in Figure 2 below).

Figure 2 Change in number of SMMEs between 2008 and 2015



Source: The Small, Medium and Micro Enterprise Sector of South Africa, BER Research Note 2016 | No 1

The 3% increase in the number of SMMEs i.e. 2.18 million to 2.25 million is less than the 14% growth in GDP over the same period. Between 2010 Q4 and 2015 Q1, SMME contribution to GDP was estimated to have gone up from 33% to 42% respectively.

As mentioned earlier, for the first time since the dawn of E-commerce in SA, online retail in the country was expected to reach 1% of overall retail during 2016. In 2015, the rate of growth of online retail was 26%, allowing it to reach the R7.5-billion mark. Much of this growth is attributable to the increase in the number of experienced Internet users in South Africa who are transacting online. Future forecasts estimate online retail sales would double from 2016 to 2020. Other studies suggest that online retail is expected to grow to R18bn by 2021, but will remain a very small proportion of the overall retail market, projected to be R1.5 trillion

The total number of online shoppers in SA at the beginning of 2015 was 3.225 million. This represented 60.8% of the Internet user base that is ready to shop online. The balance comprises those who have the propensity to shop online but have not yet been persuaded by online retailers to convert this propensity into actual shopping activity i.e. 'online retailers have not yet found the full range of triggers needed to convert propensity for behaviour into actual behaviour'

Other studies put the expected revenue in the "E-commerce" market in South Africa to amount to US\$2,689m in 2017. This is on the back of revenue that is expected to show an annual growth rate (CAGR 2017-2021) of 15.0 % resulting in a market volume of US\$4,697m in year 2021. The market's largest segment is "Electronics and Media" with a market volume of US\$964m in 2017 and User penetration is at 47.2% in 2017 and is expected to hit 60.1% in 2021 with the average revenue per user (ARPU) currently amounting to US\$145.91 (Statista, 2016).

2.3 Key Government and Private Organisations and Industry Sectors Engaged in SMEs & E-commerce

The National Development Plan (NDP) adopted in September 2012 sets out several ambitious goals for the small to medium enterprise (SME) sector - including a target for 90% of employment opportunities to be created by this sector by 2030.⁴ At its crafting, the NDP envisioned the South African economy growing by at least 5.4% growth per year over the 15 years, and identified the SME sector as a crucial player in propelling this level of growth. To that end, a number of policies and institutions have been established to promote SME growth.

⁴ Government of South Africa, National Development Plan 2030.

The Payments Association of South Africa, a division of the SARB oversees all payments and transactions done online and in essence ensures that all payment platforms and gateways conform to the law. This includes regulations to ensure that certain goods, e.g. ammunition, cigarettes and pornography, are not traded via E-commerce. To this end, the payment gateways also serve as “guardians” ensuring that no payments or transactions involving illegal goods are enabled.

The entrance of international firms such as Shopify (represented in SA by UAfrica) and PayPal (through one of South Africa’s biggest bank-FNB) into the South African E-commerce landscape, has enabled the ease of setting up online stores as well as of receiving payments for cross border E-commerce. Platforms such as UAfrica and BidorBuy have enabled SMMEs to access courier companies that are integrated into these platforms and hence reducing the cost of logistics. UAfrica has also spurred the growth of this space by running E-commerce awards between 2005 and 2015 that were geared at promoting competitiveness and rewarding innovativeness in the space. UAfrica presently hosts over 3,500 online shops

The E-commerce sector in South Africa does not have an umbrella body. Any standards that organisations prescribe to are those set in the law, and regulators seem to only take an interest in issues where a member(s) public complains about spam e-mail where the ECT Act is then used to rein in on errant firms (Case study: U-Africa).

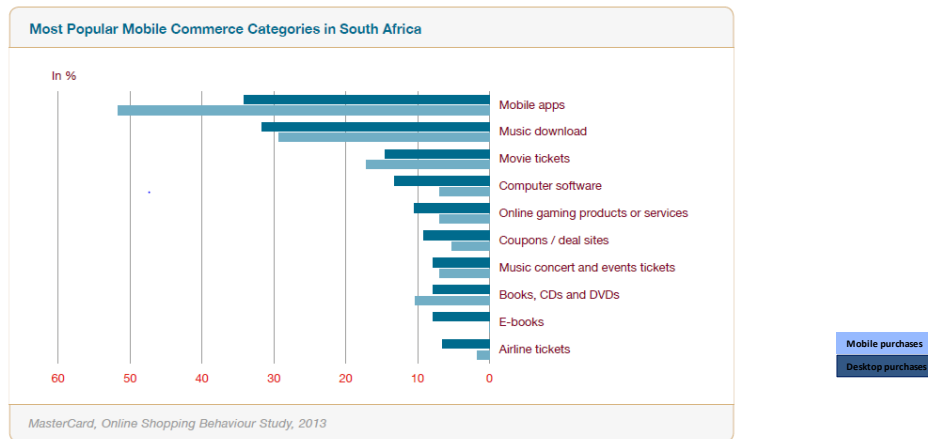
3 Current Status of SMEs & E-commerce Development in South Africa

3.1 Current Status of SMEs & E-commerce

Statistics from over 90,000 respondents during the 2015 S.A E-commerce survey⁵ revealed that the majority of online shoppers were women between 18 to 39 years old and that the majority of South Africans spent between R250 and R1000 per purchase online. About 28% of shoppers make online purchases using their mobile phones. The typical user of E-commerce in South Africa can be characterised as individuals that have had internet access for longer than five years, with the important factors in decision to purchase online being price, convenience, fast (and cost effective) delivery time. Typical items purchased include books, DVDs, games and music, electronics, computers and phones. Figure 3 shows the most common category of E-commerce transactions in South Africa.

⁵ Cross Border E-commerce Country Report -South Africa, The Paypers, 2015.

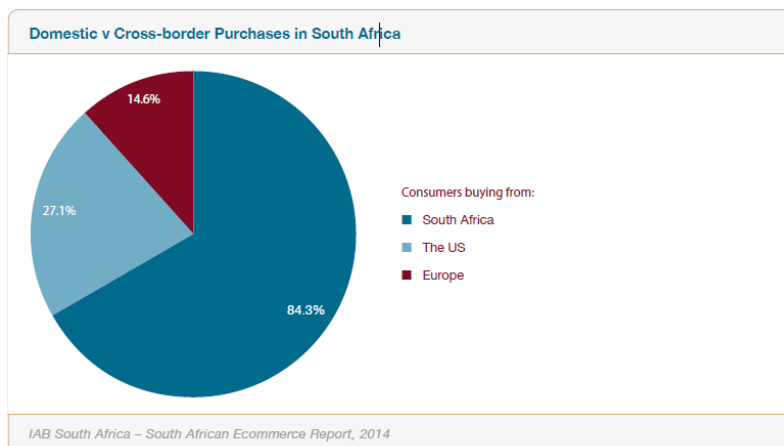
Figure 3 Most Popular E-commerce Categories in South Africa



In terms of the E-commerce entities, there has been a move away from creating large stores to small online shops focussed on particular niche products. These are shops hosted on large international platforms that offer the opportunity to reach a large market as well as access to payment gateways. Industry practitioners interviewed as part of this study, noted that, as more South Africans become proficient Internet users, the general fear towards the use of E-commerce has declined and online security and measures to prevent fraud have been put in place by the banks as well as the Payments Association of South Africa (PASA).

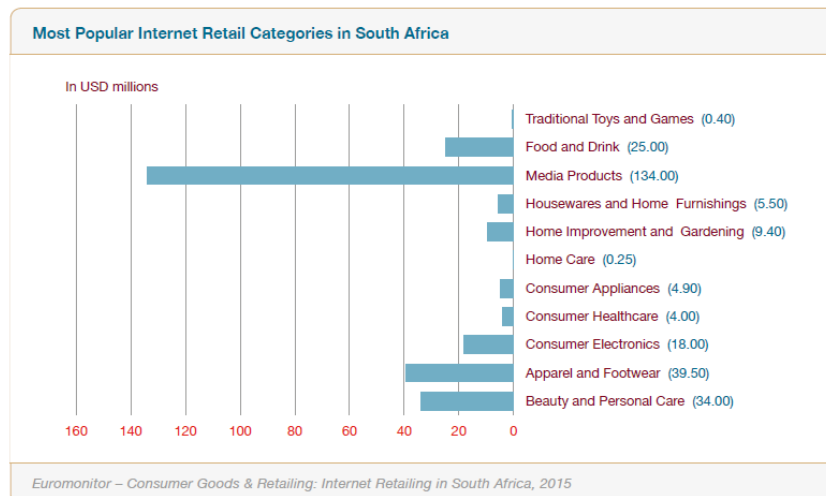
The greater amount of E-commerce transactions is characterised by South African consumers purchasing mostly from South African websites (84.3%), but 27.1% purchase from the US, and 14.6% from websites in Europe as is illustrated below.

Figure 4 Domestic and Cross-Border Purchases



The most popular retail category in South Africa is media products.

Figure 5 Popular Internet Retail Categories in South Africa



3.2 Contribution of SMEs & E-commerce

As indicated in the Table below, SMMEs contributed 33% to GDP in 2010 Q4, and their contribution increased to 42% by 2015 Q1. Estimates of the contribution of small, medium and micro enterprises (SMMEs) to the economy vary.

Table 2 SMME Contribution to GDP⁶

Output: R million	Dec-10	Mar-15	% change
Large	469 238	531 624	13%
Medium	62 250	81 128	30%
Small	169 846	310 032	83%
Total	701 334	922 784	32%

Source: The Small, Medium and Micro Enterprise Sector of South Africa, BER Research Note 2016 | No 1

In terms of contribution to GDP, an estimate of 52 to 57 per cent has been quoted by the Deputy Minister of Trade and Industry, Elizabeth Thabethe, who put the number of SMMEs in South Africa at 2.8 million and their contribution to employment at 60 per cent⁷

The main growth in the number of SMMEs from 2008 to 2015 was lower than the economic growth rate. However, the contribution of SMMEs to GDP increased over the same period. Most SMMEs still operate in the informal sector. Provinces with larger economies tend to have the largest share of formal SMMEs. While the level of education of SMME owners improved during the last seven years, it did not seem to boost the number providing professional services (South African Reserve Bank, AHI Conference, 2015).

⁶ The Small, Medium and Micro Enterprise Sector of South Africa, BER Research Note 2016 | No 1

⁷ South African Reserve Bank, AHI Conference 2015

The FinScope South Africa Small Business Survey (2010) found that small businesses in South Africa are responsible for about:

- 11,602,292 employment opportunities (i.e., 7,935,972 employment opportunities in businesses with fewer than five employees and 3,666,320 employment opportunities in businesses with five or more employees); this is in a context where about 4.5 million people or 24.9% of the population are unemployed (Statistics SA, 2013).
- Only 8.3% of these businesses indicated that they were registered with CIPRO.

4 Government Initiatives in Driving E-commerce & SMEs

4.1 Key Government Initiatives to Transform and Organise SMEs & E-commerce

4.1.1 Institutional Support

Government policy on South African SMME development was initially documented in the 1995 White Paper on SMME development.⁸ The Integrated Small Business Development Strategy provided an action plan with a focus on:

- 1) increasing financial and non-financial support;
- 2) creating a demand for the products and services provided by the SMMEs and;
- 3) reducing regulatory constraints (The DTI, 2008).

In line with this action plan, the government established a number of institutions which would be responsible for the implementation of the Small Business Development Strategy. These include:

- ***The Small Enterprise Development Agency (SEDA)***: SEDA is an agency of the Department of Small Business Development. It was established in December 2004, through the National Small Business Amendment Act (Act 29 of 2004). It is mandated to implement the government's small business strategy, design and implement a standard and common national delivery network for small enterprise development, and integrate government-funded small enterprise support agencies across all tiers of government.
- ***The Small Enterprise Finance Agency (SEFA)***: This entity was merged with the South African Micro-Finance Apex Fund (SAMAF) and Khula Enterprise Finance Limited, to cater for small businesses requiring funding up to a limit of R3 million. SEFA offers bridging finance, revolving loans, term loans, asset finance and funds working capital needs.

⁸ The Small, Medium and Micro Enterprise Sector of South Africa, BER Research Note 2016 | No 1.

- **The National Youth Development Agency (NYDA):** The agency was formed with the purpose of assisting young South Africans between the ages of 14 and 35 years to start businesses and to finance existing businesses.
- **Technology and Innovation Agency (TIA):** To enable and support technological innovation, as well as to enhance the global competitiveness of South African businesses, the Department of Science and Technology established TIA. The formation of the agency was through a merger of seven entities which were previously tasked to do the same.
- **National Empowerment Fund (NEF):** the NEF was founded with the intention of offering financial and non-financial support to black empowered businesses.

4.1.2 Legislative Support

The Independent Communications Authority of South Africa (ICASA) is responsible for regulating the E-commerce sector in South Africa under the Electronic Transactions Act.

The purpose of ECT Act is:

*“To provide for the facilitation and regulation of electronic communications and transactions; to provide for the development of a national e-strategy for the Republic; to **promote universal access to electronic communications and transactions and the use of electronic transactions by SMMEs**; to provide for human resource development in electronic transactions; to prevent abuse of information systems; to encourage the use of e-government services; and to provide for matters connected therewith.”⁹*

With specific regard to SMMEs, Part 1 Section 9 of the Act states: The Minister within the Department of Communication must, in consultation with the Minister of Trade and Industry, evaluate the adequacy of any existing processes, programmes and infrastructure providing for the utilisation by SMMEs of electronic transactions and, pursuant to such evaluation, may establish or facilitate the establishment of electronic communication centres for SMMEs and facilitate the development of web sites or web site portals that will enable SMMEs to transact electronically and obtain information about markets, products, and technical assistance. Furthermore, it is required of the government to facilitate the provision of such professional and expert assistance and advice to SMMEs on ways to utilise electronic transacting efficiently for their development.

⁹ Source: Electronic Communications and transactions ACT 25 OF 2002

The minister is also mandated to remove barriers to electronic communications and transactions in the Republic and to promote legal certainty and confidence in respect of electronic communications and transactions. It is also the responsibility of the relevant ministry to promote the understanding and, acceptance of and growth in the number of electronic transactions in South Africa with particular emphasis on ensuring compliance with accepted international technical standards in the provision and development of electronic communications and transactions.

Insofar as specific items of critical importance to the E-commerce environment The ECT Act defines the government's position on electronic transactions policy, the legal requirements for and communication of data messages as well as consumer protection; with deference to the Consumer Protection Act in places. In the areas of technical regulations regarding data, the Act stipulates compliance with accepted international technical standards. Insofar as cyber security emphasis is placed on the protection of critical databases and the contents therein and with regards to accreditation, this is catered for under the 'Authentication Service Providers'. Issues related to intellectual property and cross-border trade do not feature prominently in the Act.

With regard to taxation, in order to capture revenue from E-commerce transactions, the Government has applied a 14% value added tax. South African suppliers of E-commerce related goods and services must accordingly register as VAT vendors, submit returns and pay taxes.

South Africa was among the first African countries to have initiated fixed-broadband development programmes to support E-commerce initiatives. The Government announced its broadband policy, South Africa Connect, in 2013. The policy called for an average user speed of 5 Mbps to be available to half the population by 2016 and a universal average download speed of 100 Mbps by 2030.

4.2 Case Study Reviews on Challenges & Potential Recommendations within E-commerce in South Africa

To illustrate the challenges and manner in which the industry has responded to them a few case studies will be used.

4.2.1 Case Study 1: UAfrica

UAfrica.com is a South African based technology company that offers a cloud based E-commerce service to small medium enterprises across Africa. UAfrica provides services as a centralized inventory and order management system that provides an online store retailer the

ability to link its products across multiple sales channels, store fronts, social media channels, feasible or popup stores online using Shopify as its point of sale (UAfrica, 2017).

UAfrica has a partnership with Shopify, a leading cloud based international E-commerce solutions provider and order management systems. UAfrica service allows an online business store to list its product offers on one source (Shopify) store allowing the product to be synchronized during the order process. Hence when an order is made, these are sent to the source (Shopify) while at the same time, inventory levels are adjusted across its multiple sales channels.

The services offered include providing a shipping interface of the product sold to reduce costs and time involved in the delivery of the product, as well as automatic updates on the status of their orders with online tracking within their own store.

In the South African E-commerce environment, the creation of an online store does not guarantee viewership traffic. In response, UAfrica provides a multi channeling service whereby tools are used to increase the visibility of a brandE-commerce. Multi channeling service is implemented by allowing online stores to increase viewership of their products on multiple online store fronts that have a large number of users visiting the website.

BidorBuy is an online market space that is home to a large number of sellers and buyers visiting the website platform. UAfrica links its clients with BidorBuy and in that way, increases viewership traffic on their online stores. Multi-channeling increases the customer base of online stores, which helps to drive sales and revenue.

Responding to SME E-commerce Problems and Challenges Case Study: UAfrica

Challenges in the South African E-commerce sector:

Logistical performance is a challenge identified by UAfrica on E-commerce in South Africa. Courier companies in South Africa did not start off with E-commerce in mind and hence most of their orders were filled in manually. Attending to the high volume of orders that E-commerce generates has led to a high level of errors. One solution would be to provide a more automated online order process to better service delivery convenience by retail sellers.

Address validation is identified as another challenge faced by those in the E-commerce sector of SA. In South Africa, some regions share the same postal code. However, regions have different status levels and hence different delivery rates. Therefore, a wrong address or postal code results in consumers being charged the wrong delivery rate for the area in which delivery

is to take place. U Africa noted that the attention towards security when making a transaction online has declined because consumers have a sense of *enjoyment* when shopping online.

On the retail side, sellers are still not fully informed about the procedures needed when opening online stores and perceive this as difficult. This is partly attributable to a lack of initiative by individuals to source appropriate information. As a possible solution, the government's involvement in E-commerce should include **education, training and mentorship programs** for retailers with an interest to open online stores.

4.2.2 Case Study 2: Nontle Hair Products

Nontle Hair Products is an online store that sells a variety of Brazilian, Peruvian, Malaysian, Eurasian and hair care products (Nontle Hair, 2017).

Responding to SME E-commerce Problems and Challenges Case Study: Nontle Hair

Nontle Hair Products realise that in the online environment, **marketing expenses** are a high challenge. As a stand-alone business that is not on any marketing channel platform, audience attraction to their website is low.

Another challenge identified by Nontle Hair Products in South Africa's E-commerce environment is that of trust from their online buyers. As they provide a platform for shoppers to view the products online, most of their clients tend not to be comfortable buying the hair product before physically touching it to confirm its authenticity. For this reason, some buyers prefer to visit the warehouse first before buying.

As Nontle Hair products operate as a cross border business, a major challenge is **logistics**. The transportation of its hair products from SA to countries across the world using courier services is expensive because of the depreciation of the Rand against other currencies. This has lead SME online businesses like Nontle Hair to make use of alternative cheaper courier services that are unregistered for the transportation of products across borders. These services result in high loss of revenue to the Government as the collection of customs duties is compromised.

Nontle Hair also identified a challenge in using the PayPal payments service. PayPal accounts operate through the withdrawing of money through one local bank FNB. If the client the buyer does not have an account with FNB, an additional fee is charged. Besides the fee, a full process to verify buyer identification and banking details is done which can be time consuming (Fisher, 2016). These delays hinder the use of E-commerce in South Africa by both businesses and consumers.

4.2.3 Case Study 3: BidorBuy

BidorBuy was established in 1999 and is an online marketplace where buyers and sellers trade goods. Sellers are able to show their products to a larger audience quickly. BidorBuy is a leading E-commerce business with a strong internet brand in South Africa. The E-commerce platform has over four million new listings a month. In 2000, BidorBuy made investments into Payfast.co.za, a local online payment solutions company, and ubuntudeal.co.za. Additional investments into UAfrica were also made.

Any user who wants to sell goods or services can list items for sale on the site. A seller will issue a start time, end time, pricing information and provide a detailed description and images for the items they are selling. When a potential user browses the site they are given the opportunity to bid on or buy items of interest to them. When a sale is made the BidorBuy system connects the buyer and seller. Further conclusion of the deal (payment and delivery) depends on the two parties.

Responding to SME E-commerce Problems and Challenges Case study: BidorBuy

BidorBuy is known for its high level of user traffic. A study by U-Africa indicates that 32% of the platform users have a high- school diploma, 40% with a tertiary diploma, 12% with an undergraduate degree and 13% with a postgraduate degree. Young adults between the age of 20 and 39 make up the biggest audience on BidorBuy (BidorBuy 2017).

Another challenge for E-commerce in South Africa is the loss of products caused by theft or damage during the process of delivery. It is for this reason that 55% of BidorBuy buyers select to receive their purchase via counter-to-counter.

In order for E-commerce to contribute to the economic growth in South Africa, BidorBuy sellers believe that the establishment of an affordable, reliable and comprehensive delivery network is a matter of national importance (BidorBuy 2017).

5. Current Problems and Challenges and New Dynamism in E-commerce

The challenges faced by SMEs regarding E-commerce are intricately linked to the challenges faced by SMEs in general across SA.

5.1 Challenges

5.1.1 Access to Finance and Credit

Limitations of access to finance for SMMEs are very common (Financial Services Regulatory Task Group, 2007). Given their generally conservative nature, South African banks and lenders are more inclined to put resources in small businesses in their later stages of development. They are less likely to lend to start-up SMMEs (Financial Services Regulatory Task Group, 2007). The degree of these inclinations does, however, vary depending on location. For instance, FinScope's Small Business Survey (Finmark Trust, 2010) reported that SMMEs in Gauteng and North West tend to have greater access to finance relative to SMMEs in other provinces. In Gauteng, the greater access to finance could partly explain why the province is home to about 48% of formal SMMEs (The DTI, 2008). SMMEs in Mpumalanga and the Northern Cape, on the other hand, find it difficult to access finance. These provinces are predominantly rural in nature.

According to the GEM (Global Entrepreneurship Monitor South Africa) 2014 report, lack of access to finance and poor profitability are among the chief reasons for business failure in South Africa. Typical hindrances towards small businesses obtaining finance include inadequate collateral on the part of the entrepreneur, a lack of credit history (Financial Services Regulatory Task Group, 2007), the inability to produce an acceptable business plan according to financial institutions, poor market research, the absence of a viable business idea, and lack of access to vibrant markets (GEM, 2014).

5.1.2 Poor Infrastructure

The lack of access to physical infrastructure is a key impediment to business growth and adds significantly to the cost of doing business. The GEM South Africa report (2014) alludes to the fact that infrastructure is one of the key enablers for SMMEs development. Ease of access to communication infrastructure, utilities and transport, land or space at affordable prices are instrumental to supporting new businesses. The GEM report further extends the concept of infrastructure to commercial and professional infrastructure, which speaks to the presence of commercial, accounting and other legal services and institutions. These services are key to promoting the sustenance of existing SMMEs and the emergence of new ones.

Results showed that small businesses in Gauteng have more difficulty finding physical space in which to operate (Finmark Trust, 2010). SMMEs in the North West cited problems related to utilities, particularly interruptions in the delivery of electricity. In Mpumalanga and the Northern Cape, on the contrary, the experiences were different. There SMMEs claim to have access to adequate amenities and space.

5.1.3 Low Levels of Research and Development (R&D)

Building R&D capacities is important for small businesses, as it can help determine the feasibility of transforming ideas into actual businesses. Investing in this aspect of business also allows businesses to access innovative solutions through the process of discovery. According to Maas, De Coning and Smit (1999), innovating firms are likely to grow faster than traditional start-up businesses. They found South African SMMEs to be less innovative compared to those in developed countries. Booyens (2011) suggests that innovation in South Africa is stifled by the failure of small businesses to form strong upward linkages with larger firms. This failure denies them opportunities for technology diffusion. The GEM report (2014) proposes that government should provide incentives for R&D. The aim would be to foster innovation, and to attract and strengthen lasting linkages among domestic and foreign knowledge intensive firms.

5.1.4 Onerous Labour Laws

South Africa's labour laws have been found to be a significant regulatory obstacle (OECD, 2015) to business growth, particularly when it comes to staff layoffs. Small business owners have found that once they have employed workers, the law makes it difficult to lay the workers off if the business can no longer afford to keep them or if they prove to be unproductive. Labour laws do not provide for cyclical downswings in small businesses (GEM, 2014). Berry Al *et al* (2002) identified SMMEs within the manufacturing sector, e.g. clothing and furniture production, as being labour-intensive. Such SMMEs tend to be subject to relatively high labour costs, which in South Africa is the result of labour laws which were well-intentioned to benefit workers. South Africa's relatively high minimum wages, however, are proving costly for small businesses, particularly at the start-up stage. With SMMEs finding it costly even to hire unskilled and semi-skilled workers, this adds to the hindrances of small business growth.

5.1.5 Skills Shortage a Constraint-An Inadequately Educated Workforce

The National Development Plan (NDP) notes that small business in the services sector is negatively affected by a shortage of skills. This shortage is mostly true for business services such as accounting and sales capabilities. Interestingly, South Africa's trade and accommodation sector – which is sales oriented – has the largest number of SMMEs relative to

the other sectors. The Department of Trade and Industry (2008) acknowledges that a shortage of skills and limited entrepreneurship capacity act as constraints to employment growth.

5.1.6 Inefficient Government Bureaucracy

Government policies are instrumental in enhancing entrepreneurial activities, as they set the platform upon which new businesses can be started and sustained. The GEM (2014) South African report and the WEF 2014/2015 Global Competitiveness Report listed government bureaucracy as one of the major obstacles to entrepreneurial and business activity in South Africa. Delays in the time required to obtain permits and licences was one of the aspects mentioned in the WEF report. The report also highlighted red tape associated with starting up and managing a business.

5.1.7 Lack of Coordination in Government

In its policy report concerning the integrated strategy on the promotion of entrepreneurship and small businesses, the Department of Trade and Industry (DTI) (2005) identifies inter-departmental cooperation within government as a weakness when it comes to programme planning and implementation. The DTI asserts that at the height of inter-departmental conflicts, various departments abandon any coordination of efforts and go about creating their own SMME functions. This usually results in the duplication of efforts and hampers the development of the monitoring and evaluation framework for assessing the success of SMME programmes

5.1.8 Lack of Access to Markets

The inability of SMMEs to access markets has been noted as one of the major factors threatening their longevity. Access to markets is one of the fundamental requirements (by credit providers) for accessing funding and mentorship at early stages. However, small businesses located in rural areas are at a disadvantage compared to their urban counterparts (Watson & Netswera, 2009). The authors find that their small size and remote location hinder them to form collectives in order to enhance their bargaining power. Consequently, they find it difficult to lobby government institutions to better serve their needs.

The practice of forming spatial clusters is encouraged by Naude et al (2008). However, forming clusters is encouraged mostly for SMMEs which have passed the start-up phase.

Clustering could place fragile small businesses in intensely competitive positions.

5.1.9 The Majority of SMEs Fail in their First Year

The DTI (2008) found that the majority of South Africa's SMMEs rarely survive beyond their nascent phases, lasting for an average of less than 3.5 years. According to Global Entrepreneurship Monitor (GEM), the survival rate for start-ups is low and opportunities for entrepreneurial activity appear to be lowest in developing countries. This is most likely because developing economies tend to house a larger proportion of necessity-driven entrepreneurship, whereas opportunity-driven activities are most common in developed countries. The DTI (2008) defines entrepreneurial activity which finds niche markets as opportunity entrepreneurship. GEM (2014) further expounds on this definition, explaining that opportunity-driven entrepreneurship is often embarked upon by those who might have jobs but seek better opportunities. This form of entrepreneurship is different from necessity-based entrepreneurship, which is said to relate to involvement in business as a result of having no better choice for work. In its 2014 survey, GEM uncovers that entrepreneurial activity driven by opportunity has yielded a greater likelihood of survival and propensity to create employment than necessity-driven entrepreneurial activity.

As already discussed, lack of access to finance and poor profitability are at the top of the list of reasons why small businesses fail.

5.1.10 Logistics

Last-mile connectivity and logistics is an important area requiring further work in South Africa, as delivery is still inefficient. Successful E-commerce players offer fast and reliable logistics, but that is expensive for both consumers and players.

5.1.11 Taxation

With effect from 2014, it is compulsory for all foreign suppliers of E-commerce services in South Africa to be registered and pay tax on all services purchased by South African residents. This applies to both B2B and B2C services. Forcing a foreign supplier to be registered could, however, be detrimental to cross-border E-commerce.

5.1.12 Other Constraining Factors¹⁰:

A low point came in 2008, when US online retailer Amazon.com blacklisted the South African Post Office over concerns about theft. As such, concerns over the service require most retailers to rely on private courier services for deliveries, especially time-sensitive ones, which in turn

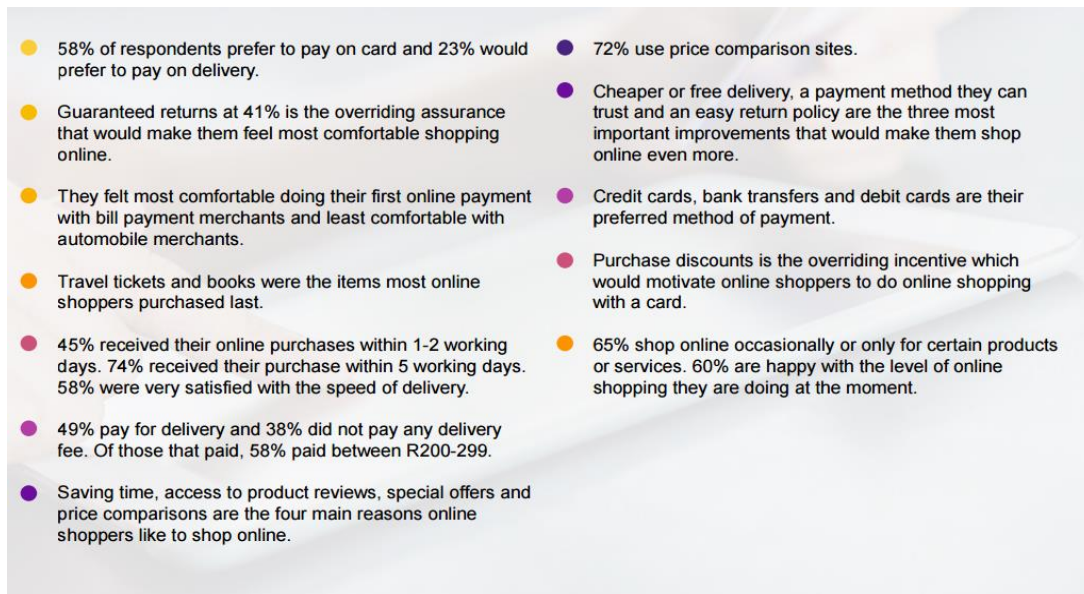
¹⁰South African Retail and Consumer Products Outlook 2012-2016, PWC, October 2012.

adds significant costs. This explains why there is a bias towards non-perishable online purchase patterns.

5.2 Potential Solutions

A June 2016 study of over 12,000 E-commerce shoppers revealed the following.

Figure 6 E-commerce Industry Report; IAB Effective Measure and Visa, June 2016



Informed by these key findings, the following recommendations are proposed for SMMEs engaged in E-commerce

5.2.1 Provision of Secure Payment Platforms

With the increase in cybercrime and identity theft, it is necessary that SME business provide or partner with recognizable secure platforms to ensure their shoppers feel secure while online.

5.2.2 Guaranteed Returns

Given that in most instances the purchaser is acquiring a good or service that they are yet to experience or use, firms should provide guarantee of returns or refunds if the client is not satisfied.

5.2.3 Faster Delivery Times

This will give the purchaser quick satisfaction and the efficiency of the process from purchase to delivery can enable repeat purchases.

5.2.4 *Reduced Delivery Fees*

The bigger participants charge little to no delivery fees due to the economies of scale they enjoy. Therefore, SMEs must target consumers in certain geographical regions to maximize savings on delivery costs and any synergies with couriers in that particular region or market.

5.3 New Dynamism in E-commerce

The E-commerce environment can be characterised as having a symbiotic nature. While on the one hand E-commerce impacts on the manner in which business is conducted, other technologies in turn will impact on the form of change E-commerce will have. Some examples of areas in which E-commerce will have a step-change impact include:

- The shared economy as peer-to-peer networks e.g. Airbnb, Lending Club, where E-commerce provides a fundamental enabling function.
- C2M (Customer to Manufacturer) using E-commerce platforms to disintermediate wholesalers and retailers.
- Cyber-Physical Systems (CPS) e.g. autonomous automobiles leveraging E-commerce capabilities for added functionality.

Areas where other technologies will impact on E-commerce include:

- Internet of Things (IOT), which can take E-commerce to a new level e.g. the use of beacons by retailers to ‘push’ notifications and discounts to area shopper smartphones which are then used to transact.
- Artificial intelligence and robotics that can provide buying and delivery support for E-commerce enabled purchase behaviour.
- Big data and Cloud computing where big data analytics provides an intelligent link to the omni-shopper i.e. consumers using multiple channels to shop, enabled by E-commerce infrastructure running on mobile devices.

6. Recommendations

The following are recommendations identified during this study that can help boost E-commerce in the South African Market by the Government.

6.1 South African Government

The growth in E-commerce has brought new challenges for the formulation of taxation policy and the effective administration thereof. Rapid developments in information technology have not only had an impact on accessing tax liability and collecting tax revenue due but also on the ability of Governments to identify the number of taxable transactions that are completed on cyber space. Therefore, taxation systems should be dynamic to ensure that the systems can record the relevant transactions attracting tax implications.

6.2 Digital Content Products

Transactions involving digital content often come with technical or contractual access or usage limitations and many consumers have difficulty understanding their rights and obligations. A language option that allows users to choose the language that will best suit understanding should be added on online websites to clarify consumer's information about such limitations, as well as on functionality and interoperability.

6.3 Payment Protection

Recognizing that the level of payment protection can vary depending on the type of payment mechanism used, the recommendation calls on governments and stakeholders to work together for development of minimum levels of consumer protection across payment mechanisms.

6.4 Product Safety

In South Africa, a range of unsafe products that have been prohibited from sale or recalled from the offline retail market still find themselves being sold online. The South Africa E-commerce environment which is not regulated in any area except that of payment (PASA) will still have these unsafe products being sold over the internet due to the lack of regulatory enforcement. A new provision is added to ensure that unsafe products are not offered to consumers online, and that businesses cooperate with the relevant authorities to address the problem. Strict heavy fines should be set for payment gates that accept funds for the purchase of illegal unsafe products. As reported by some of the companies in the case studies, there is need for the government to continue monitoring the trade of illegal substances on E-commerce platforms.

6.5 Education

With the rise and growth of E-commerce in South Africa, the need to educate and provide training, mentorship workshops for the opening and running of an online store is important. Retailers with the drive to open an online store should be given training incentives to help boost their online presence and store activity.

The South African Department of Communication's discussion on electronic commerce in 2000 stated that E-commerce should involve the integration of many elements of technology, infrastructure, business operation and public policy, which need to operate as smoothly as possible together to yield the maximum benefits to the public.

6.6. Role of Government Departments

The following ways below show how government departments could get involved when implementing South African E-commerce policies:

Department of Education: Overall education policies on information technologies; distance learning programmes for retailers embarking on the opening of online stores.

Department of Labour: Programmes on skills training to individuals that are unfamiliar with E-commerce and by so doing create technology job placement.

Department of Health: Tele-medicine programmes, health information database and education initiatives.

Department of Trade and Industry: World Trade Organisation (WTO) negotiations, imports and customs issues, harmonisation of South African policy with global treaties, and local Industrial strategies, particularly the South African Information Technology Industry Strategy (SAITIS) project.

South African Bureau of Standards: The establishment and management of standards to be followed by players in the South African E-commerce environment. This will help create fair competition between small and big online firms.

Department of Finance, South African Revenue Service: Policies on tax treatment, revenue collection for electronic transactions and imports and customs issues.

South African Communications Security Agency (SACSA): Policies on cryptography including digital signatures, certification authorities, public key infrastructures.

Department of Arts, Culture, Science and Technology (DACST): Policies relating to development of technology, particularly the information and communications technology (ICT) sector of the national research and technology foresight project, as well as cultural expression via new technologies.

Department of Justice, National Intelligence Agency: Investigation and prevention of cyber fraud, illegal transmissions and other security threats; establishment of information technology security policies for government.

Department of Public Service and Administration: Establishment of information technology and information management policies for government.

Department of Public Works: Electronic archiving policies and strategies.

South African Reserve Bank: Initiatives on electronic payments, funds exchange, interbank technologies for cross border online transactions and electronic money.

6.7 International Organisations

International organisations such as UNIDO should continue to facilitate idea exchange and dialogue on E-commerce within South Africa; between the government and the industry with particular emphasis on ensuring more SMEs come on board E-commerce and that a policy and regulatory framework is established. Secondly, dialogue and idea exchange must be held at regional and international level where experiences and learnings from across the world can be dissected and applied by the participating SMEs and governments to their local contexts. The BRICS bloc should be leveraged and cooperation enhanced in areas of capacity building and standardisation across infrastructure, technologies, skills and professional training. Best practices should be shared and cooperation with DFIs strengthened.

6.8 South African Private Sector

It is crucial for the private sector to realise the potential that E-commerce has and be able to adapt to the changes in the sector worldwide.

It is clear that despite the efforts made by the government of South Africa to spur the growth of E-commerce, not many SMEs have taken this route or have done so successfully. It is therefore important for SMMEs to define their businesses and offerings to the public and package them via their online stores in ways that will help them reach a greater captive audience. Furthermore, the sector needs to form its own self-regulatory body that will serve to not only lobby for the interests of E-commerce players but ensure an even playing field, transparency and work at

reducing negative features in the industry such as cybercrime and the retailing of illegal or banned goods online.

6.9 Primary Research

One of the challenges to developing this ‘SMEs in E-commerce South Africa Country Report’ has been the paucity of basic and up to date data on the subject. For this reason and to better position the country to participate in the planned initiatives by UNIDO, it is recommended that a comprehensive baseline research survey into this area be conducted.

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